Disaster Preparedness: Learning from Previous Flood Incident for Future Intervention

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Abstract. Monsoon season in Malaysia give a big impact essentially related with natural disaster such floods as a common incident that happen almost every year. There is a need for intervention, for better understanding of the disaster preparedness in records management. Thus, a systematic planning is needed to plan and carry out its function and roles. The purpose of this study is to examine the coordination, organizational response and mitigation of previous floods for future intervention at one (1) of the public universities in East Malaysia. The goal of this study is also to examine disaster preparedness on paper-based data which is records and document during a flood incident and what can be learnt from a previous occurrence and come up with a range of provisions. This study used qualitative approach that involved structured interview and unstructured information. Population groups have been selected according to their role and qualification to ensure all data is credible and accurate. Finding showed that disaster preparedness on records management has not been prepared accordingly. Awareness is the main factors that contribute to the success of records disaster preparedness plan. However, emergency management in this university only focus on human safety and expensive equipment without notice about vital records.

Keywords:Disaster preparedness, records management preparedness, emergency management, records control.

1 Introduction

Malaysia weather facing two monsoon climate weather during April to September name as Southwest Monsoon and from October to March name as Northeast Monsoon. The Northeast Monsoon causes rather more rainfall than the Southwest Monsoon, which can increase sea levels, inundate risks, the potential danger of property damage and lead to major droughts. Kelantan, Terengganu, Pahang and Perak suffered the worst floods in 1971 that resulted death to 25 people, more than 500,000 people affected and public property damage that estimated over RM2.85 billion. Hence, what happened to vital records in organization that affected by floods for almost every year?

2 The Challenges

Awareness

The lack of control on disaster preparedness has many implications in evaluating flood disasters, including limiting factors in stressful command situations and their effect on the well-being and organizational implications (Elaine, 2010; Paton & Flin, 1999). There are only several organizations that earnest with this implementation but still not fully compliant and some institution assume that this implementation is not crucial. While various researcher states many organizations create emergency plans but most of them failed to implement (Mcentire & Myers, 2004; Topper, 2011). Even many organizations have a disaster plan but lack of training and staff awareness to implement and compliance with the disaster preparedness plan that will give a negative effect to the organization when disaster strikes (Wani & Ganaie, 2017). Azah (2017) from Malaysia Ministry of Human Resources (MOHR) confirmed that lack of training and seminar on disaster plan had caused them hard to comply and at the same time lack sense of awareness among the staff toward the records disaster preparedness. Auf der Heide (1989) emphasize even the disaster plan has been prepared on the shelf but most of the organizations do not comply and conduct with a programme or spend time and effort towards these responsibilities.

Emergency manager is the person suffering from occupational stress when facing the flood disaster. Hence lack of awareness from emergency manager gives a big impact on command to the employee in handling disaster whether during training or when disaster occur. Most organisations still have no concern on controlling when flood incidents arise. Whybark (2015) underlining the particular concern about the quality of disaster response incidents was decreasing. Wani & Ganaie (2017) highlights the disaster management program inefficiency and organisation failure by discovering that much of the company did not have a disaster response and recovery program. Most emergency management is still weak and need a systematic management with proper emergency plan and giving training and motivation for emergency manager and employee in facing any disaster so that organization is always in an alert mode.

Several countries facing the problem during flooding incidents because of their government awareness itself. During Asian Tsunami in 2004, the community said

government has done nothing that supposedly government play a main role in giving aid then following the NGOs (Mulvany, 2011). This situation shows, in the poor country, citizens basically facing problem to get help from government compare to rich country. They need to wait for support from others country based on volunteer.

Complication in Responses of Organization

Page (2004) and PWC (2011) mentioned to the lack of capacity of the company to respond to disasters as well as to the unawareness of the organization community commitment itself. Not only that, Chang et al., (2012) state the competence of construction organizations is one (1) of the issues in response of organization when flood strikes. Thus, the responsible organizations need to learn from previous flood incident because it is crucial as a lesson learn for future intervention. Whybark (2015) reported that the emergency agency is faced with a transport and road situation that is damaged by a flood that makes the rescue operation more difficult. He also emphasizes the differences between real-time actions in making the decision compared to the emergency plan. Besides, the organization's response was also facing issues of information quality (Mladenow et al., 2015). Usually, emergency management need to deal with false positive information before getting the right information such as false rumours about disaster event and the absence of information on disaster event itself (Goodchild & Glennon, 2010). Thus, organization were facing the difficulties to receive response to the organization when flood strikes because of response organization itself.

Mitigation

Lack of budget for disaster programme as an issue whether in term of training for emergency plan or disaster recovery after incident (Onyeneke, 2017). Budgets contribute a big impact through government to secure the country. Wani & Ganaie (2017) shows that reducing a disaster's effect needs careful thought and foresight in institutional preparedness and continuity preparation, especially in terms of financial considerations. Therefore, in the event of a disaster, it would be important to determine the proportion budget or minimum funds have been allocated. In Malaysia, the government will cover the costs of flood preparation, Emergency rescue services, and rehabilitation of victims and public utilities after the flood (Chan, 1995). The Oregon Secretary of State Archives Division and Oregon Association of Municipal Records (1971) mention budget is one (1) of the reasons why disaster recovery programme was not initiated well. The main issues identified in raising disaster awareness is cost operation Clerveaux, Spence & Katada (2010). However, Wein and Rose (2011) reveal country industry economy also influenced the construction industry to respond major disasters. Thus, most of the authors clearly showed budget is very significant in facing disaster. Government needs to prepare the budget to ensure the right procedure or guideline to avoid or prepared well before facing disaster compare to most of the organization will give support after disaster strikes.

Communication and Networking

Issue in Communication and Networking is also of the mitigation problem. Disasters and Communities (2007) discussed the problem facing with language barriers in transmitting information during disaster incident. However, this situation facing by certain country that have various nation such as China, India, and Malay. Even the technology grows, it is more difficult to analyse the true information. Arkin (1989) stated that the most difficulties aspects in communication is to develop the accurate and comprehensive message between communities. Not only that, organizational structure is one (1) of the factors that contribute to communication barrier (Chang et al., 2012), having problem related with internal communication and connection among employee because they have a larger workforce need to deal and command with. Other than that, organizational barriers usually come in term of loss or distortion message that they pass from one (1) level to another. A proper training is crucial in handling larger workforce in big organization that involved the entire employee. Thus, they will know their responsibilities if disaster occurs. Wani & Ganaie (2017) highlight the disaster's impact needed bit more attention and careful planning in organizational specifically for institutional readiness and continuality emergency plan including clear communication management. There are a very small number of householders getting a timely flood alert and due to networking, the assistance provided to flood victims is challenging (Tourish, 1997). Therefore, communication and networking are the main reasons that bring to successful support during flooding day. Parker (2016) indicates the scarcity of knowledge on risk management impacts the governing body's goals and purpose. Furthermore, language barriers prove as an obstacle for better awareness of disaster management plan Clerveaux, Spence & Katada (2010). Thus, communication is an important tool in delivering message especially during emergency times to achieve a successful service, help and support to the communities. Even though, we have a lot of social media in delivering information to the communities, but the issues faced by the communities and response of organization is the validity of the information itself.

3 Disaster Issues

National Archives of Scotland (2013) describe records management is standardized handling of the information in the organization by applying records life cycle, to fulfil operational business demands, regulatory and financial standards, and public needs. Comprehensive preservation of information management allows for emergency preparedness to protect documents that are important and valuable to the organization. The disaster response plan is a strategy for unplanned incidents for records maintenance that can disturb, harm, or ruin the vital documents in the organization. Vnoucek (2005) stated that disaster is bad occurs such as tragedy, accident, mishap that affecting any area or valuable things that arise from natural or man-made causes. This incident will cause substantial damage, harm of life or human safety or destruction of value property, environment. Disaster also can describe as the nature greatness as to be beyond the handling capacity of the community. Hence, in term of records management is a crucial for the protection program that focus on managing records disaster such as planning, response and discovery.

Shaluf (2007) classified disaster into three (3) types that frequently happened which are naturals, man-made, and hybrid disasters. He mentions flood disaster is under metrological/hydrological phenomena because it is cause based on country and organization location. The impacts of natural disasters in general is a main flood incident that frequently reported only using two (2) measures such as the total number of pupil death and costs loss that associated to destruction and damage (Elaine, 2010).

Natural	Environment	Political	Technology
 Earthquake s Fires Floodsland slides Hurricanes Tsunamis Tornadoes 	 Removal of the prohibition of chemical Chemical radiation of pests A volcanic eruption Combustible vehicle Incidents Dust & haze Lightlighting, Animal and insect pests 	 Arguments workers Riot Strike Insurrection, Bomb threats, Theft & sabotage, Vandalism hardware or software failure Virus Electrical power supply failure. 	 Failure of application software and hardware Virus and intrusion Electro-magnetic Failure of electrical power supply Hacker's activity Failure of the central air conditioning system

Table 1. Example of Natural and Man-made Disaster

Nonetheless, hazard identification for disaster is vital to any company when trying to evaluate essential items like circumstances, venue, policy, processes that may cause damage. The organization needs to identify and evaluate the hazards after risks have been identified. However, the disaster phrase has a broad definition that includes natural hazards and a human-made threat that is intentionally or inadvertently (Daily, 2012). In order to protect organization assets such as records, the developing of emergency plans or disaster plans is a critical need. The plans basically must base on the concept of an organization that they should identify what kind of asset they have whether human or equipment. Thereafter, the responsible team need to come out with the procedure to protect all the asset in the organization. The objective of the disaster plan is to ensure immediate action can be taken to preserve human and equipment from the damage during the disaster occur and initiate recovery procedures immediately. Below represent the most frequent types of disasters fires, floods or water damage, power failures and time damages. Those disasters are due to:

Malaysia Seasons/Monsoon

Chan (1995) mention in March and November, Malaysia peninsula which is Johor, Pahang, Terengganu and Kelantan face cold surges of winds in the north-east and direct meet of the temporary monsoon.



Fig. 1. South West and the North-East Monsoons (Abdullahi, 2014)

Malaysia basically facing two (2) monsoons season every year and sometimes give a bad impact to the country. However, the disaster that contributes by monsoon is unexpected incident. Abdullahi (2015) mention Terengganu is one (1) of the states meet medium hot and humid all year round named as tropical monsoon climate. Malaysia is one (1) of the countries that deals with physical and human geography. The two (2) majors for this case are the peninsular that are facing by west area such as Malaysia, Thailand, and north area in Singapore. However, for east facing by Malaysia east and Indonesia east. Figure 1 below shows the structure of rainwater in Malaysia and how it is affected by the two-season which are the South West and the North-East Monsoons.

Disaster Training

Clerveaux, Spence & Katada (2010) defined that disaster or emergency plan is a process of planning and writing the plan itself that involves weakness assessment and decisions about which possibility tragedies incident that need to manage. Clearly, the advantages and importance of a disaster recovery plan are noticeable. Once a comprehensive plan is executed, if an unpredictable and harmful incident happens, the organization can minimize risk, prevent any damage, enforce compliance, and ensure all information are safe and secure through the disaster preparedness of record keeping.

In every organization, disaster recovery training is equally important with disaster management. Disaster management in the organization should include disaster recovery training as part of important elements. The fundamental knowledge and understanding of public health, such as deaths, sicknesses, injuries, and trauma are significant in determining the actual response to a disaster. This is particularly important in providing information to the community and in achieving goals, planning and training for related staff in the organization (Noji, 2000). Most of the countries have recently has changed from disaster response to a more proactive disaster management approach within the organization to improve coordination management in facing disaster (Clerveaux, Spence & Katada (2010). This is a way to contribute a better management in organization and country itself. The process basically includes launching the regulations on emergency preparedness, assessing hazards, weaknesses and risks, creating plan emergency operations, developing, identifying and training warning systems, exercising and educating the public about the importance of a disaster plan in dealing with any accidental disaster (Mcentire & Myers, 2004). Paton & Flin, (1999) stresses that the most critical aspect of effective disaster preparedness planning is to provide preparation at the organization as a major element for the workforce. So that, a complete plan not only available in the shelf but successfully implement by way theoretically and practically. Training is a significant in showing them the real situation.

Place that Suffered with Previous Disaster

Many organizations are facing the disaster and have a huge impact specifically on records such as South National Archives (Onyeneke, 2017). A number of prominent libraries in Kashmir suffered damaged floods during September 2014. Six (6) academic libraries (S.P. College Library, Women's College Library, Govt. Degree College Library, Amar Singh College Library, Gandhi Memorial College Library, College of Education Library); Three (3) special libraries (J & K Academy of Art Culture & Languages Library, Govt. Medical College Library, J & K High Court Library) and one (1) public library (Sri Pratap Singh Library) (Wani & Ganaie, 2017). Therefore, organizational preparation is needed from now on instead of just waiting for an incident such as the Tsunamis in 2004 that flown across Asia or the Katrina Hurricane in 2005 that completely destroyed the New Orleans Library's Martin Luther King branch. The first aspect of a proper backup and recovery plan is comprehensive documentation, including knowing and understand the inventory of equipment. This is useful in determining which parts of equipment and material in the organization just have, which are extra but useful, and which are truly extraneous.

The implementation of disaster preparedness after incident strikes is a high risk for organization or for the county itself. Government had to accept for recovery cost based on incident. Most companies believe they were never going to suffer a disaster. The organization sometimes has a complete emergency response plan, but this is not workable when a disaster occurs due to the lack of training. The National Library of the Czech Republic in Prague suffered major flooding in 2003 (Vnoucek, 2005) and Marinova (2017) report the disasters as well face by Iraqi libraries because of the recent war. Next, also destroyed by the earthquake were the Khurshid National Library in Muzaffarabad and the Kashmir Central Library and the Azad Jammu and

Kashmir University Information Center in Pakistan (Diamond, 2006; Long, 2006; Ellis, 2007; and Topper, 2011). Two (2) major hurricanes struck New Orleans and Texas during the year 2005. In short, the disaster involved many organizations, although the organization has a formal disaster recovery plan, the need to protect one (1) of their most valuable assets, such as their records, is unlikely to be addressed, since they never devise a strategy on out there on how to respond to the disaster response plan. Disaster preparedness plan is useless without a strategy plan to accomplish the disaster response plan.

Awareness

McIlwaine (2006) highlight the affecting to hazard that organization should be constantly aware from outside threats such as the infrastructure damage, the location, climate and geological conditions prevailing. The possibility of damage such as actions from irresponsible person such as emissions from commercial or manufacturing, riot or extremist attacks is a potential risk. It is not easy to design effective consideration cultural perceptions and attitudes or awareness. The challenges in designing to ensure information can be encompassing Clerveaux, Spence & Katada (2010). Disaster management determinations are a crucial need for to reflect the understandings of risk. It is important especially to those who deal with vital and valuable things. The first aspect of a proper backup and recovery plan is comprehensive documentation, including knowing and fully understanding the inventory of equipment. Hence, the disaster awareness can be built from children to ensure future generation aware on how to prepared and protected from disaster in any situation incident. Clerveaux, Spence & Katada proposed Disaster Awareness Game that call as (DAG) as a technique for primarily schools to recognize the children as significant channels of risk information between schools and family circle itself. Daines (1991) suggest several principal reasons of advantageous on why training is important to make people aware. To identify shortages in the overall contingency management system, the organization can determine through training and implementation plan. Staff obstacles such as the modification plan and the effectiveness for an excellent response during a disaster occurs.

Emergency Management

Parker (2016) defined that emergency management is a process of implementation the plans that required employee and equipment to response the disaster. Hence, flood planning is essential for any institutions that deal with vital and value collections and its crucial to consider an active document that need to update effectively based on current situation. In any disaster incident literature, the terms "Emergency and Disaster" are words often used incoherently in explaining circumstances that need urgent response (Ernst, Mladenow & Strauss, 2017). A written procedure for disaster prevention is a vital aspect of emergency management (Eden and Matthews, 1996). Both authors highlight the essential to monitor and maintain these plans by risk assessments and routine reviews of buildings and facilities, recognition and use of credible professional guidance, staff training sessions and risk monitoring temporary, storage and handling services. IFLA (2010) manual suggest stages; such as risk assessment, prevention and protection, preparedness including a disaster management plan, reaction to protect priority in every emergency situation and last in term of recovery after the flood occurs need to be covered in a hazard management program.

4 Organization Response

When flood occurs, communication and networking to the community was considered as a critical thing that needs to ensure its function between organizations and employee to transmit information successfully. Quarantelli and Dynes (1977) stated to assist with doing "comparative and systematic research", they successfully created the typology of response of organizations. The typology basically contains four (4) different categories that response to organizations may have four (4) types as present below:

Typology Type	Activity	
Typology Type I	Establish group performing regular tasks	
Typology Type II	Emerging group that is performing regular tasks	
Typology Type III	Establish group performing non-regular tasks	
Typology Type IV	Emerging group that is non-performing regular	
	tasks	

Table 2. Typology Type

The use of this typology can help in categorized the response of organizations towards organization that facing flooding incident and facilitates analysis. It is appropriate and effective to communicate to the stakeholder to make it clear that disaster management is a life-saving strategy for dealing with disaster Clerveaux, Spence & Katada (2010).

Budget

An enough budget for archival improvement, maintenance and accommodation is needed from time to time to avoid from any thread despite prepare after disaster strikes. Most of organization failed in carrying successful disaster preparedness because of the budget as well. Not enough budgets provide for disaster preparedness plan in term of documents and project also lead to unsuccessful disaster implementation. Besides, based on literature sources most of the countries budget will be distributed after the incident has occurred by government. Within the institution, the development of disaster mitigation funds and strategies for disaster preparedness will be implemented for efficient collection of funds and establish the association that can give the advantage in disaster handling (Kumar & Newport, 2007). The organizations needed sufficiently good governance to meet the requirements for disaster preparedness strategies for achieving an effective disaster management plan.

Communication and Networking

Clerveaux, Spence & Katada (2010) state in delivering information regarding disaster management and preparedness, multiple media are needed to ensure the information is effectively communicating to the responsible team. However, risk in term of communication is vital in preparing people to facing disaster incident. Besides, many others factors are influenced the effectiveness of communication in delivering accurate information to the society and responsible team (Shepherd and Vuuren, 2014). Facebook, Instagram, and Twitter are the universal used in delivering information. Nowadays, the power of social networking has further enhanced its significance in the handling of emergency management, particularly for information announcement. The need for social networking sites that make them so relevant from an emergency management perspective is to provide direct contact among stakeholders in an open access landscape domain, including how to promote open information sharing, coaching/learning, fundraising and society management through social networking interaction (Crowe, 2011). By following the current and sophisticated technology, decisionmakers regarding disaster management must arrange one (1) communication medium that can be access universally from all citizens, irrespective of language, culture and civilization (Clerveaux, Spence & Katada, 2010). Crowe (2011) also seek for multimedia that regularly help in deliver information especially to the society despite in the 90's era that facing problem regarding communication and networking. Usually, regulatory communications that are issued during natural disaster such as floods, more focus on risk messages, warnings, migrations request or demands, flood emergency room, messages regarding self-efficiency, or the accessibility of release resources to the society (Elaine, 2010). In emergency management, communication failures typically exist between authorities and societies (Ahmed, 2011).

Methodology and Sampling

The case study is based on previous flooding incident that effect one (1) of the public universities in east peninsular Malaysia that involved in structured and unstructured information that comes from various sources such as individual, group and institution. This study used inductive process by collecting data on other articles and reports to present the descriptive analysis. The sample in this study was the person who has the experience in flood incident that consist of four (4) informants which three (3) professional staff that are Task Force Chairman, Assistant Administrative Officer, Senior Assistant, and one (1) Assistant Security Officer. Researcher used purposive sampling in arriving this study sample because it is a simple technique that can be done in manually (Onyeneke, 2017). This group have been chosen according to their position and to ensure all the information is accurate and relevant that play a main role in data collecting processing to come out the answer based their own perspective from different level. Research instruments that use to gain data for this study are three (3) which are literature sources, face-to-face interview and observation.

5 Data Analysis and Findings

Three (3) types of analysis were used in this study which is content analysis, narrative analysis and ATLAS.ti 7. By using content analysis, researcher has an opportunity to look point directly via text and can analyse in depth on coded in text and will help in term of explicit statements about the relationships among concepts. Narrative will show accurate evidence that come out a complex result in interpret information while researcher have a chance to look at translation and interpreting behaviour in dynamic rather than static. ATLAS.ti 7 is software to analyse data. It is an effective toolkit for qualitative research method to interpret broad textual bodies such as image, audio, and video data, and outcome in a complex concept hidden in every data.

To coordinate, organizational response and mitigate

With poor record-keeping at the centre, there are several threats in all bearings that swell outward. Every kind of data held by record management has to be looked after for one (1) cause or another, and if records are not properly checked, they will lead record management down the road to potential destruction in budgetary, productivity and information misfortune When it comes to readiness, there is no arrangement to cover such as recognizable proof of trade recovery groups, preparation and awareness programs, emergency equipment, supplies and services, backup and off-site capacity arrangements, vital records. Live in a rare world. Tropical storms, surges and other disasters can wreck trade immediately. But these events are rare, suggesting that numerous businesses fall flat to think of almost subjects such as recovery from catastrophe, information assurance, and consistency in trade. This is not exactly a recommendation for winning and it's more like a fantastically unsafe bet.

Precipitation in the fall, winter, and spring can trigger flooding is a primary factor leading to flooding. Before a hard freeze, heavy moisture will saturate the soil in the autumn and fill water retention areas. For example, if a wet fall occurs, the river, subsoil moisture, swamps, and ditches may be full of water and freeze before the water is drained or absorbed into the surface. Good record keeping facilitates preparedness for emergencies to preserve documents that are important and historical. Disaster response plan is a plan for unplanned incidents in record management that can interrupt, harm, or ruin the record of valuable organization. A disaster recovery strategy has clear advantages and value. If a systematic plan is well established, and suddenly the unexpected and harmful circumstance occurs, the company can reduce danger easily by mitigating damage, ensuring compliance, and ensuring that client records are protected and secured through efficient record storage.

Misunderstanding in handling disaster occurs when the management is difficult to identify the risk at the early stage, insufficiently understand the correlation between cause and effect of the disaster, failed to measure the risk, hard to identify the potential damage in terms of category and level of damage might happen. To resolve these and other problems and issues, emergency services providers have developed a variety of programs to assist in the losses caused by disasters. In this case, record management will need to organize the disaster preparedness based on recovery and mitigation.

Preparation includes short-term pre-disaster initiatives which reinforce the readiness of organizations and communities to respond effectively. This activity is needed for the next response to a shortened process as well as potentially speed up recovery. During this process, it is possible to identify hazards and develop plans to address the requirements for response and recovery. Plans are therefore much more successful when jointly established by all organizations that will respond in order to organize assets and responsibilities in advance. Additionally, during the preparation phase, practice and simulations can be done to help prepare participants facing the actual performance.

Recovery includes short-and long-term tasks performed to stabilize lives and assets in an affected community after a disaster such as providing accommodation, temporary roofing, financial support and the immediate restoration of initial service and infrastructure. Long-term efforts include rebuilding and recovering physical, cultural, and social systems, and eventually relearning the losses from the disaster.

Mitigation process is long-term activities that take place after one (1) flooding incident and before the next incident strike. This activity aims to avoid emergencies and the harm from the incidents, including the detection and correction of risks, risk vulnerability assessment and mitigation, and possible losses. In other words, it is an implementation of continuing measures to reduce the potential impacts of disasters. Mitigation also included rule and regulation amendments and the introduction of new approaches. It can also be non-structural interventions of mitigation. Zoning, for instance, can be used to discourage construction of hazard-prone areas.

To learn from the experiences

In examining the flood disaster situation, lack of awareness has affected a significant issue which is communication. The limiting in command-and-control during a disaster occurs impact emergency management team for their task performance and capability. Even many organisations have a contingency plan, but in the case of a disaster occurring, lack of preparation and personnel knowledge to execute and comply with the disaster preparedness plan will negatively impact the organization. More preparation and emergency plan workshops will make them feel difficult to comply with, and the disaster plan has been put on the shelf, but most organisations do not comply with the plan or take time to train their operations.

Implementing disaster preparedness following incident strikes poses a risk to the organization or county itself. Not only that, the government had to consider incidentbased recovery costs as well. Most companies are hoping a catastrophe will never occur. The organization sometimes has a complete disaster response plan, but when a disaster strikes due to lack of training it is not usable. Determinations of disaster management are a vital need to represent risk understanding. Particularly for those dealing with critical and valuable issues, it is necessary.

The goal is to learn from these experiences when an individual or organization has repeated encounters with similar events. It can be related to the process of tying shoes on an individual level. At first, with repeated failure, tying shoes can be a slow and frustrating process. The process, however, becomes easier with repetition. Eventually, the system is dynamic and a natural exercise requiring minimal cognitive effort. It is

possible to say the same for organisations. Although organisations are much more complex than a single task, the purpose of change is identical.

The main key the lack of awareness is with the language barriers in transmitting information during disaster incident. Even the technology is growing up, it is more difficult to analyse the true information. The most difficulties aspects in communication is to develop the accurate and comprehensive message between communities. Not only that, organizational structure is one (1) of the factors that contribute to communication barrier. Other than that, organizational barriers usually come in term of loss or distortion message that they pass from one (1) level to another. So that, a proper training is crucial in handling larger workforce in big organization that involved all the employee. Disaster or emergency plan is a method of preparation and preparing a plan itself including the evaluation of vulnerabilities and decisions on the possible disasters to be handled.

Language is the criterion of culture that hard to change. Thus, the language gaps show a considerable barrier to developing a better understanding of disasters command specifically to the community. Communication is an important tool in delivering message especially during emergency days to achieve as successful services, help, support to the communities. Even though, we have a lot of social media in delivering information to the communities, the issues facing by communities and response of organization in term of validity of information itself. What they need to implement there, storage area and Records office should be protected and fire resistant & secure for highly confidential files since they do not have any disaster plan, this issue should be crucial in maintaining and handling records. This measure is to prevent and control the fire outbreaks and it should be taken to ensure all the records are safe. There need to ensure the regular fire drills activity, and disaster recovery plan should be in place, and regularly tested.

To order to increase the need for training to disaster recovery, disaster recovery education in any organization is equally important for disaster management. Significant public health awareness, such as fatalities, accidents and illnesses, is crucial to assessing the actual response to the disaster. This is particularly important in providing education to the community and in setting priorities, scheduling and preparing for the associated workers in the organization. This is a way for the company and the nation itself to lead to better management. The process includes implementing emergency management legislation, evaluating threats, vulnerabilities and dangers, scheduling emergency operations, designing, defining and training warning systems, practicing and educating the public about the value of a disaster plan in coping with any unintended disaster.

To create, follow and implement the provisions of vital records.

An emergency plan aims at protecting people and property. It to ensure that in case of an emergency, immediate action is needed to reduce the damage incurred and immediately institute recovery procedures.

There are four (4) requirements needed in these plans which are risk assessments and regular inspections of buildings and infrastructure; identification and use of reliable specialist guidance; training programs for staff; planning of accommodation and

storage contingency. The key principle of effective disaster preparedness planning is to include instruction on the company as a key component for the employee. So, not only in the shelf, a complete project is usable, but successfully implemented technically and practically. Education is important to show them the real situation.

Vital Records Policy. All records classified as vital or necessary to the University's activity and which, if lost, would seriously hinder or disturb normal university relations, or which may place the University in a state of legal or fiscal danger by their loss, are to be protected either by microfilm or other comparable replication or reasonable security process. University departments are primarily responsible for safe and secure documents classified as vital records, irrespective of the media format on which they are stored.

All services, agencies, divisions, and laboratories need to decide which data needs to be protected and how to protect it in the light of various recent disasters. Departments will create an action plan to respond to emergencies or incidents that could disrupt their business records and collect the data they need. It takes time, effort, and resources to set up and maintain a vital records system. Vital documents should be limited to records that are really important for continuing operations following a disaster.

The objectives of disaster preparedness to ensure a vital record system should be extended into appropriate task descriptions, command and control declarations and procedural instructions to ensure their effectiveness. These reports will describe the responsibilities of the employees in the department, give guidance and sharing data to the staff concerned. Through this guideline publication, the agencies will disseminate information on the vital records program detailing the laws, the guidelines, the responsibilities of the organization officials and the procedures to be followed in order to protect vital records and to maintain operations in the case of an emergency or disaster.

Organization requires to prepare disaster recovery team members or any appointed person to assist with official disaster recovery coordination when it is necessary. At the very least, the group members will help to identify the nature and quality of the material incident and to classify the records and physical media records that have been affected. So that the recovery director can properly report the disaster and propose an effective recovery measure for the consent of the organization's top management.

The Records Officer plays a major role in giving instruction and guidance for the inventory of documents and deciding the systematic maintenance procedures for the copying of crucial data. The collaboration of the Agency's program administrators over the life-cycle of vital records is required. Based on the interview of contingency planning and perception, program managers need to identify which documents are crucial to preserving physical legal custody either financial rights or legal. Project administrators should take action to guarantee that copies of these vital records are effectively maintained in the practice, in conjunction with the Records Management Department.

6 Conclusion

This study supports the widespread belief that simulation of disasters is a beneficial activity, but more needs to be done. When a tragedy hits, whether it is an earthquake, tsunami, criminal networks, flood, or fire, the situation can cause fear and panic. Good disaster response helps reduce several of the chaos caused by the unpredictable disaster. Having a disaster requirement guideline in department and knowing their position within the plan is important for all staff. Disaster plans should be periodically updated to ensure the company is fully understood.

References

- Abdullahi, M. G (2014) Historical Reviews, Causes, Effects and Mitigations Approach. Retrieved December 7, 2017, from https://www.bing.com/cr
- Abdullahi, M. G. (2015). Effect of Rainfall on Groundwater Level Fluctuation in Terengganu,
- Malaysia. Journal of Geophysics & Remote Sensing, 04(02). doi:10.4172/2169-0049.1000142
- Ahmed, A. (2011). Use of social media in disaster management. Proceedings of the International Conference on Information Systems, ICIS 2011, Shanghai, China, December 4-7
- Arkin, E. B. (1989). Translation of Risk Information for the Public: Message Development. Effective Risk Communication, 127-135. doi:10.1007/978-1-4613-1569
- Auf der Heide, E. (1989). Disaster Response: Principles of Preparation and Coordination. Retrieved December 2, 2017, from https://www.bing.com/cr?IG
- Azah, N. (2017, May 19). Archive Management [Personal interview].
- Chan, N. W. (1995). Flood disaster management in Malaysia: an evaluation of the effectiveness of government resettlement schemes. *Disaster Prevention and Management: An International Journal*, 4(4), 22-29. doi:10.1108/09653569510093405
- Chang, Y., Wilkinson, S., Potangaroa, R., & Seville, E. (2012). Managing resources in disaster recovery projects. *Engineering, Construction and Architectural Management*, 19(5), 557-580. doi:10.1108/09699981211259621
- Clerveaux, V., Spence, B., & Katada, T. (2010). Promoting disaster awareness in multicultural societies: the DAG approach. *Management: An International Journal*, 19(2), 199-218. doi:10.1108/09653561011038002
- Crowe, A. (2011). The social media manifesto: a comprehensive review of the impact of social media on emergency management. *Journal of Business Continuity & Emergency Planning*. 5(1), 409-420.
- Daily, V. (2012) The Benefits of Having A Disaster Recovery Plan. Retrieved from http://www.business2community.com/strategy/the-benefits-of-having-a-disasterplan-0213552#4yddFrbY8g44g3Jm.99 on June 2nd 2017.
- Daines, Guy E. (1991). Planning, Training & Exercise. Retrieved December 10, 2017, from http://www.homelandsecurity.iowa.gov/county EM/planning training.htm
- Diamond, T. (2006). The impact of hurricane Katrina and Rita on three Louisiana academic libraries: a response from library administrators and staff. *Library Administration & Management*. 20(4). 192-200.
- Disasters and Communities: Understanding Social Resilience (2007) (n.d.). Retrieved December 22, 2017, from https://www.bing.com/cr?
- Eden, P. and Matthews, G. (1996). Disaster management in libraries. *Library Management*. *17*(3). 5-12. doi: 10.1108/01435129610112743.

- Elaine J. Hanford. (2010). Investigating Health Consequences from Major Flood Occurrences in South-Central Texas through the Lens of Frame Theory and Analysis: Assessing Awareness and Communicating Risk. *ProQuest LLC*. 1-223.
- Ellis, J. (2007). Lessons learned: the recovery of a research collection after Hurricane Katrina. *Collection Building*. 26(4). 108-111. doi: 10.1108/01604 950710831906.
- Ernst, C., Mladenow, A., & Strauss, C. (2017). Collaboration and crowdsourcing in emergency management. *International Journal of Pervasive Computing and Communications*, 13(2), 176-193. doi:10.1108/ijpcc-03-2017-0026
- Goodchild, M.F. and Glennon, J.A. (2010). Crowdsourcing geographic information for disaster response: a research frontier. *International Journal of Digital Earth*. 3(3). 231-241.
 IFLA. (2010). About the Preservation and Conservation Core Activity. Retrieved December 11, 2017, from https://www.bing.com/cr?
- Kumar, T. A., & Newport, J. K. (2007). Institutional preparedness and sustainability of micro finance institutions during post disaster scenario. *Disaster Prevention and Management: An International Journal*, 16(1), 21-32. doi:10.1108/09653560710729785
- Long, S.A. (2006). Recovery and renewal: libraries lead the way in post-Katrina New Orleans. New Library World. 107(11/12). 552-554.
- Marinova, N. K. (2017). The Iraqi National Congress's Promotion of the 2003 War. Oxford Scholarship Online. doi:10.1093/acprof:oso/9780190623418.003.0008
 Mcentire, D. A., & Myers, A. (2004). Preparing communities for disasters: issues and processes for government readiness. Disaster Prevention and Management: An International Journal, 13(2), 140-152. doi:10.1108/09653560410534289
- McIlwaine, J. (2006), *IFLA Disaster Preparedness and Planning: A Brief Manual, Manual, IFLA-PAC, Paris.* From www.ifla.queenslibrary.org/VI/4/news/ipi6-en.pdf
- Mladenow, A., Bauer, C., Strauss, C. and Gregus, M. (2015). Collaboration and locality. 7th. International Conference on Intelligent Networking and Collaborative Systems (INCoS 2015), Taipei, Taiwan
- Mulvany, A. P. (2011). Aaron Patrick Flood of Memories: Narratives of Flood and Loss in Tamil South India. *University of Pennsylvania Scholarly Commons*. 1-327.
- National Archives of Scotland. (2013, May 31). National Records of Scotland. https://www.nrscotland.gov.uk/record-keeping/records-management.
- Noji, E. K. (2000). The Public Health Consequences of Disasters. *Prehospital and Disaster Medicine*, 15(04), 21-31. doi:10.1017/s1049023x00025255
- Onyeneke, C. O. (2017). Impact of disaster on access to records of National Archives of South East, Nigeria. *Collection Building*, 36(2), 63-68. doi:10.1108/cb-12-2016-0033 Page, I. (2004). Reconstruction capability of the New Zealand construction Industry. *Paper* presented at the NZ Reconstruction Symposium.
- Parker, D. (2016). *Hazard management and emergency planning: perspectives in Britain*. Place of publication not identified: Routledge.
- Paton, D., & Flin, R. (1999). Disaster stress: an emergency management perspective. *Disaster Prevention and Management: An International Journal*, 8(4), 261-267. doi:10.1108/09653569910283897
- PWC (2011), "Valuing the role of construction in the New Zealand economy: *a report to the construction strategy group*", PricewaterhouseCoopers (PWC), Auckland.
- Quarantelli, E. L., & Dynes, R. R. (1977). Response to Social Crisis and Disaster. Annual Review of Sociology, 3(1), 23–49. doi: 10.1146/annurev.so.03.080177.000323
- Shaluf, I. M. (2007). Disaster types. Disaster Prevention and Management: An International Journal, 16(5), 704-717. doi:10.1108/09653560710837019
- Shepherd, J., & Vuuren, K. V. (2014). The Brisbane flood: CALD gatekeepers' risk communication role. *Disaster Prevention and Management: An International Journal*, 23(4), 469-483. doi:10.1108/dpm-08-2013-0133

The Oregon Secretary of State Archives Division and Oregon Association of Municipal Records (1971) The Oregon interagency guide for conservation and forage seedings. doi: 10.5962/bhl.title.111003

- Topper, E. F. (2011). After Hurricane Katrina: The Tulane Recovery Project. *New Library World*, *112*(1/2), 45-51. doi:10.1108/03074801111100445
- Tourish, D. (1997). Transforming internal corporate communications: the power of symbolic gestures and barriers to change. *Corporate Communications: An International Journal*, 2(3), 109-116. doi:10.1108/eb046541
- Vnoucek, J. (2005). The Prague flood diary. Preparing for the Worst, Planning for the Best: Protecting Our Cultural Heritage from Disaster: Preconference to the 69th IFLA General Conference and Council Proceedings, Berlin.
- Wani, Z. A., & Ganaie, A. H. (2017). Impact of Kashmir floods on the libraries. *Collection Building*, 36(2), 69-76. doi:10.1108/cb-01-2017-0002
- Wein, A., & Rose, A. (2011). Economic Resilience Lessons from the Shakeout Earthquake Scenario. *Earthquake Spectra*, 27(2), 559-573. doi:10.1193/1.3582849
- Whybark, D.C. (2015). Co-creation of improved quality in disaster response and recovery. *International Journal of Quality Innovation*, 1(1),