

ASSESSMENT OF DISASTER MANAGEMENT PRACTICES IN SCHOOL LIBRARIES WITH REFERENCE TO AGA KHAN ACADEMY LIBRARY

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2014

DECLARATION

This is my original work and has not been presented to any other university or College for an award of a degree or certificate.

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This research project has been submitted for examination with our approval as the University Supervisors

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DEDICATION

I dedicate this study to my beloved wife Belinda Wanjiru and our children Timothy Waweru and Thomas Chege.

ABSTRACT

Libraries and information centres are vulnerable to a whole range of disasters. For instance, fire that is caused by arson or faulty electrical systems; flooding from burst pipes, or following heavy rain; break-ins and theft as a result of inadequate security precautions: all these incidents can be costly in terms of damage and loss of material some of which may be unique equipment and systems. The study sought to carry out an assessment of disaster management practices in school libraries with Aga Khan Academy library used as the case study. The study used a case study approach where both quantitative and qualitative designs were applied. It targeted a population of 502 respondents that comprised of the school top management, teaching staff, library staff and students. The sample for the study was 76 respondents which translated to 15 percent of the targeted population that were sampled through stratified random sampling. Questionnaires were the key data collection tool that was used but also supplemented by interviews. The collected data was analyzed statistically using SPSS. The study found out that school libraries encounter a number of disasters which include fire, flood, wars and or student riots, negligence and poor maintained buildings. Nonetheless, school libraries have not put in place adequate mitigation measures for such disasters. Thus, the study concluded that school libraries should put in place a number of disasters which need to be properly managed. Thus, the study proposed a number of recommendations which include institution of a disaster management policy to govern disaster management implementation. Importantly, the disaster management policy must be endorsed by the top management of the school for it to be binding to all school stakeholders.

TABLE OF CONTENTS

DECLARATION	ii
ACKNOWLEDGEMENT	iii
DEDICATION	iv
ABSTRACT.....	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS.....	x
CHAPTER ONE: INTRODUCTION	1
1.0 Introduction.....	1
1.1 Background of the Study	1
1.1.1 Aga Khan Academy, Senior School Nairobi Library	2
1.2 Statement of the Problem.....	3
1.3 Purpose of the Study	4
1.3.1 Objectives	4
1.4 Research Questions	4
1.5 Significance of the Study	4
1.6 Limitations of the Study.....	5
1.7 Scope of Study	5
1.8 Operational Definition of Terms and Concepts	5
CHAPTER TWO: LITERATURE REVIEW	7
2.1. Introduction.....	7
2.2 Disasters	7
2.3 Disaster Preparedness	8
2.4 Disaster Management in Libraries	9
2.5 Disasters in Academic Libraries	10
2.6 Mitigation Strategies in Disaster Management.....	12
2.7 Disaster Management Approaches in Academic Libraries.....	13
2.8 Conceptual Framework.....	15
2.9 Summary	16
CHAPTER THREE: RESEARCH METHODOLOGY	17
3.1 Introduction.....	17
3.2 Research Design.....	17
3.3 Area of Study	17
3.4 Target Population.....	17
3.4.1 Sample Frame	18
3.5 Sample and Sampling Technique.....	18

3.5.1 Sample Size	18
3.5.2 Sampling Techniques	19
3.6 Data Collection Methods	20
3.6.1 Questionnaire.....	20
3.6.2 Interviews	21
3.7 Research Instruments	21
3.7.1 Pilot Study	21
3.7.2 Reliability and Validity	21
3.7.3 Ethical Considerations.....	22
3.8 Data Presentation and Analysis	22
3.9 Summary	23
CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION	24
4.1 Introduction.....	24
4.2 Presentation of Data from Questionnaire and Interviews	24
CHAPTER FIVE: SUMMARY OF KEY FINDINGS, CONCLUSION AND RECOMMENDATIONS.....	37
5.1 Introduction.....	37
5.2 Summary of the Finding	37
5.3 Conclusion	38
5.4 Recommendations.....	39
5.5 Future Research	40
REFERENCES.....	41
APPENDIX I: LETTER OF INTRODUCTION	43
APPENDIX II: QUESTIONNAIRE.....	44
APPENDIX III: INTERVIEW SCHEDULE.....	48

LIST OF TABLES

Table 3.1: Illustration of the Composition of the Target Population of the Study	18
Table 3.2: Illustration of the Sample Size.....	19
Table 4.1: Duration of Membership to the School Library	25
Table 4.2: Designation of Respondents	26
Table 4.3: Disasters Vulnerable to the School Library.....	27
Table 4.4: Disaster Management Programs in School.....	27
Table 4.5: Types of Disasters Planned by the Library.....	28
Table 4.6: Frequency of Reviewing the Library Disaster Management Plan.....	30
Table 4.7: Availability of a Disaster Management Policy	30
Table 4.8: Policy Endorsement by the Top Management.....	31
Table 4.9: Provision of Resources for Disaster Management.....	31
Table 4.10: Disasters Mitigation in School Libraries	32
Table 4.11: Types of Disasters in School Libraries	33
Table 4.12: Mitigation of Disasters	33
Table 4.13: Disaster Management Team	34
Table 4.14: People Incharge of Disaster Management Program	34
Table 4.15: Review of the Disaster Management Program	35

LIST OF FIGURES

Figure 2.1: Conceptual Framework	16
Figure 4.1: Responsibility for Preparing and Maintaining Disaster Plan	29
Figure 4.2: Suitable Strategies for Mitigating Disasters for the School Library	36

LIST OF ABBREVIATIONS

SPSS	Statistical Package for Social Scientists
MYP	Middle Year Program
IGCSE	International General Certificate of Secondary Education

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The chapter covers background information on disaster management in information centres especially school libraries. The background information of Aga Khan Academy, Nairobi, Senior School library is also provided as it is used as the case study. The state of affairs of disaster management practices for the school library is explored which serves as the statement of the problem of the study. Aim, objectives and the research questions of the study are also covered which forms the premise under which the study is advanced. The chapter also covers significance, limitations and the scope of the study.

1.1 Background of the Study

Information centres including school libraries are alleged to be susceptible to a wide variety of disasters (Ellis, 2007:83). Ellis goes on to say that fire caused by arson or faulty electrical systems; leakages from burst pipes, or following heavy rain; break-ins and theft as a result of inadequate security precautions: all these incidents can be costly in terms of damage and loss of material some of which may be unique, equipment and systems (Johnson, 2005:53). Disasters can have serious financial consequences and cause considerable disruption to services. No library or archive is entirely free from risks and disasters either natural or man-made which can happen anytime, anywhere. The author adds that most information centres including libraries do not have appropriate disaster management program.

On the other hand, Matthews (2005:78), defines a disaster in an information centre as any eventuality that threatens, by way of destruction, human safety and information materials as well as library equipment by damaging or destroying the library buildings and collection of information materials. Ellis (2007:21) opines that disaster occurs on various levels and must be measured by the extent on the levels and by the extent of their influence. Johnson (2005:39) provides that some disasters are community-wide, such as earthquakes, tornadoes, floods, power blackouts or acts of terrorism. While on the other hand, Halsted, Jasper and Little (2010:137) hold that other disasters are local to one

building, such as a water leak, arson or disgruntled employee destroying computer records.

Both man-made and natural disasters have serious ramifications to any information centre, library or any institution. For instance, fire ignited by arson attack or an electrical fault from computers could end up burning all information materials in the library. Matthews (2005:45) gives more example of devastating effect of disasters in an information centre as he says that a poor security management could lead to break- ins resulting to loss of important materials which would be hard to come by due to materials been in out of print. Also, Johnson (2005:12) notes that poorly maintained buildings and environmental conditions such as leaking roofs, improper lighting systems can deteriorate information materials thereby rendering them to be of no value.

It is therefore important to appreciate that information centres such as school libraries are faced with a number of disasters which threaten the well-being of information materials. Matthews (2005:67) acknowledged that longevity of information materials and the survival of information centres in general require a sound disaster management program to be in place. Therefore, the study sought to assess disaster management practices in school libraries while using Aga Khan Academy, senior School Nairobi library as a case study.

1.1.1 Aga Khan Academy, Senior School Nairobi Library

The Aga Khan Academy, senior school Nairobi is a private, co-educational, day school, located in Parklands area of Nairobi. It was established in 1970. The school is owned by Aga Khan Education Services. The Academy tries to craft a melodious balance between academic demands, sporting and cultural activities and community life. The Aga Khan Academy is registered with the Ministry of Education, Kenya. It is a member of International schools in Kenya. With approximately 450 students and 48 graduate staff, it is a multi-cultural school with many nationalities and cultures represented at any given time.

The Aga Khan Academy, senior school offers an international curriculum leading to the International General Certificate of Secondary Education (IGCSE) administered from the Cambridge University, Middle Year Program (MYP) and Diploma by International Baccalaureate. The Library facilitates both teaching and learning in the school. The Aga Khan Academy senior school has a centrally located library which serves both teachers and the students in the school. The Library also serves the school as a social hall. The mandate of the academic library is to provide library services in terms of information resources to both students and teachers. The library boasts of a collection of three thousand books. It also has a collection of audiovisual materials.

1.2 Statement of the Problem

Information materials in libraries are exposed to a number of dangers that may emanate as natural or artificial calamities. For instance, these materials are threatened not just by theft and vandalism, but by disasters such as fire, floods, riots and earthquake as well as damage from careless handling or poor environmental situations. Aga Khan Academy library, since its inception has lost a number of information materials through disasters like floods. This captured the attention of the school principal who decreed in 2010 that library materials that will be lost or destroyed will be taken as errors of omission or commission and that the school librarian will be responsible.

Despite such stern warnings, library materials have continued to deteriorate, loss and the worst case scenario happened on 20th November 2013 when the library room flooded due to water pipes that burst. This made information materials on the lower part of the shelves to submerge in the flooded water. Most of the materials were rare and out of print. It therefore became a problem for the school library to satisfy students' information needs.

Therefore, the study sought to assess disaster management in school libraries while using Aga Khan Academy, senior School Nairobi library as a case study. The aim of the study was to access the context of the disaster management in terms of likely disasters, the preparedness of the school library and the proposed strategies that will improve disaster management of the library.

1.3 Purpose of the Study

The aim of this study was to assess disaster management practices in school libraries in reference to Aga Khan Academy library.

1.3.1 Objectives

- i. To assess types of disaster that the Aga Khan Academy, Senior School Library is vulnerable to
- ii. To establish the extent of management support to disaster management practices of the Aga Khan Academy, Senior School Library
- iii. To establish how disasters are mitigated in the Aga Khan Academy, Senior School Library
- iv. To Propose suitable strategies that can be applied in mitigating disasters in the Aga Khan Academy, Senior School Library
- v. To give a framework to be used to manage disasters in the Aga Khan Academy, Senior School Library

1.4 Research Questions

- i. Which kind of disasters are vulnerable to the Aga Khan Academy, Senior School Library?
- ii. What is the extent of management support to disaster management at the Aga Khan Academy, Senior School Library?
- iii. How are disasters mitigated at the Aga Khan Academy, Senior School Library?
- iv. What are the suitable strategies that can be applied in mitigating disasters at the Aga Khan Academy, Senior School Library?
- v. What is the best framework that will be used to manage disasters in the Aga Khan Academy, Senior School Library?

1.5 Significance of the Study

The study was significant in a number of ways. To begin with, it sought to establish the kind of disasters that the library is vulnerable to at the Aga Khan Academy, Senior School. With respect to this, it is of importance as it helped to make informed proposals on how well to mitigate such disasters in the future. In so doing, it helped to curb the loss

of information materials that is rampant in the school library. This will go to great length in saving costs that the school management incurs in replacing such information materials. In addition, the study is of importance to librarians in charge of school libraries as strategies that were proposed for the mitigation of disasters at the Aga Khan Academy, Senior School library can also be of use in their school libraries.

1.6 Limitations of the Study

The study faced some resistance from the management of the Aga Khan Academy, Senior School in collecting data as they seemed too busy to respond to questions pertaining to the library which according to them may be of little importance. Again, respondents were reluctant to disclose sufficient information. To overcome this, the researcher carried out an awareness program on the dangers of disasters in the school library in order to make all players appreciate their role. This helped in improving the willingness of the top management in participating in the study. Again, the researcher assured the respondents of their confidentiality and that information collected was to be used only for the purpose of the study.

1.7 Scope of Study

The scope of the proposed study was to assess the disaster management in school libraries. The library at Aga Khan Academy Senior School was used in this research as the case study. The study population was comprised of the top management of the school, teaching staff, library staff and the students.

1.8 Operational Definition of Terms and Concepts

Disaster

A disaster is any occurrence which threatens or destroys, library's buildings, collections, contents, facilities or services.

Disaster Management

Disaster management is the organization and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters.

Interoperability

Interoperability is the communication between disciplines and jurisdictions that permits real time exchanges of information on demand, with whoever needs it, when properly authorized.

School library

A library created and maintained to serve and support the educational activities of the school.

Disaster plan

This is the written framework that outlines measures on preventing and responding to damages such as water, fire, or other emergency situations. Again, this should be a high priority in all institutions.

Mitigation

This is the effort to reduce loss of life and property by decrease the effect of disasters.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter focuses on reviewing studies undertaken by other researchers on disaster management and arguments in the area of disaster management. Possible disasters that are likely to befall school libraries are also covered. In addition, possible mitigation measures to these disasters are also reviewed in the chapter. Lastly, a conceptual framework that guides the study is provided.

2.2 Disasters

A disaster is an occurrence that causes a widespread destruction and distress (Diamond (2006: 56). It can also be regarded as an unexpected occurrence whose effects are negative and have lasting impacts on the operations of the firm. In modern academia, disasters are seen as the consequence of inappropriately managed risk which escalates to cause undesirable effects. According to Corrigan (2008: 87), these risks are as a result of hazards and vulnerability.

However, hazards that attack areas with low vulnerability are not considered a disaster, as is the case in uninhabited regions. Disasters are classified into two major groups which are natural or man-made disasters. Natural disasters are those that occur as the result of any natural occurrence that causes great damage and loss of life or the emergency situation that is the consequence of such an event or forces occurring in nature (Diamond, 2006: 56). Good examples include flood, hurricane, tornadoes among others.

On the other hand, according to Diamond (2006: 56) artificial disasters are caused by human action, negligence, error, or involving the failure of a system. Man-made disasters are in turn categorized as either technological or sociological. In terms of technological disasters, they occur as the results of failure of technology, such as engineering failures, transport disasters, or environmental disasters. On the other hand, sociological disasters have a strong human motive, such as criminal acts, stampedes, riots and war among others.

2.3 Disaster Preparedness

Kaur (2009:102) holds that any organization is prone to disasters. Thus, it becomes important for organisation to be prepared for any eventuality. The purpose of disaster preparedness is to optimize preventive measures that can be taken to protect an existing information centre and its collection from devastation resulting from both natural and man-made disasters such as fire, flood, earthquake, a building system's failure. In doing so, Corrigan (2008: 97) posits that preventive measures include having a written plan of action outlining salvage procedures to minimize damage to a collection in the event of a disaster. Warnasuriya (2005: 72) points out that disasters, such as the fire which ragged through the City Hall of the Nairobi City Council in 2004 points that organisations are vulnerable to disaster. Therefore, both large or small, natural or man-made, emergencies put an institution's staff and collections in danger. However, it is unfortunate that institutional staff often learn about the advantages of emergency preparedness through hard experience, but an emergency does not have to become a full-fledged disaster.

In fact, hazards can often be mitigated or avoided altogether by a comprehensive, systematic, emergency-preparedness program. Such programs provide a means for recognizing and preventing risks, and for responding effectively to emergencies. Diamond (2006: 69) on the hand appreciates that small-scale emergencies can be contained if staff members are prepared to react quickly. Damage can be limited even in the face of a large-scale disaster.

Warnasuriya (2005: 77) holds that a written plan developed by the disaster management team is key to prepare for disasters and emergencies. Nonetheless, Kaur (2009:112) believes that disaster planning is complex as the written plan is the result of a wide range of preliminary activities. The entire process is most efficient if it is formally assigned to one person who acts as the disaster planner for the institution and is perhaps assisted by a planning team or committee. The planner should establish a timetable for the project and should define the scope and goals of the plan, which has to depend largely on the risks faced by the institution.

2.4 Disaster Management in Libraries

Long (2006: 142) notes that information materials such as national cultural heritage in museums, archives and libraries are at risk from both natural and man-made ‘disasters’. These may cause damage to collections and buildings, with unique material lost forever. Long (2006:8) affirms that effective disaster management can help prevent the devastating losses incurred in case of a disaster.

However, in most information centres including libraries, disaster prevention and preparedness are activities have been put off to a later date with the mindset that the likelihood of experiencing a disaster not there; that ‘it won’t happen here’ attitude. Unfortunately, there are many incidents of varying cause and scale from around the world to suggest this may not be the case. Well publicized examples include the flooding in Florence in 1966 and its effect on the National Library (Long, 2006:141), the destruction by fire of Norwich Central Library in England in 1994 (Ellis, 2007: 10), all point that libraries just like any other entities are also exposed to different forms of disasters. Therefore, it become much important that disaster management should be prioritized if its resources and operations needs to be guaranteed for continuity.

Information centres such as archives, libraries and museums are not immune from critical, region-wide incidents, for example, the floods in the Czech Republic in 2003 (Long, 2006: 43), the 2004 Indian Ocean earthquake and the ensuing tsunami’s impact on South and Southeast Asia (Corrigan, 2008: 112), and Hurricane Katrina’s devastation on the Gulf Coast of the United States in 2005. Diamond (2006: 82) on his part notes that war and terrorism, likewise for example, the terrorist attacks in the United States on 11 September 2001 (Diamond, 2006: 86), war in the former Yugoslavia (Eden, Feather and Matthew, 2004: 76), and Iraq (Corrigan, 2008: 96) all pose threats to the well-being of the libraries. Thus, it is important to consider disaster management practice in this context, including reaction to such disasters, and what might be done to foster good disaster management practice across this sector which has the responsibility for what is increasingly recognized as key, educational, economic as well as cultural assets. Ellis (2007: 102) is of the view that existing practice within librarianship need to be identified

and reviewed to inform the development of effective disaster management to meet the needs of libraries in the 21st century.

Moreover, Halsted, Jasper and Little (2005: 62) hold that besides the traditional roles that the library and information centres perform towards the society as a service centre and being at helm of affairs in providing information on all vital aspects for the growth and development of the society, these information centres can play much bigger role in disaster management. Halsted, Jasper and Little (2005: 82) in a research paper on Disaster Management Training in Libraries presents the findings of a research project that was undertaken by British Libraries covering libraries, information centres, museums, archive centres. Certain policies and practices have been suggested which should be adopted in libraries for managing a disaster. Major emphasis is given on the points that libraries should work in cooperation, take practical measures to minimize disaster risk and preparedness for a quick response. On the other hand, Ellis (2007: 72) points that a practical and regular training session is essential for any disaster management programme. Nonetheless, for disasters to be well managed by these information centres including school libraries, Gerlach (2005: 57) notes that it is important to understand and appreciate disasters that are likely to befall.

2.5 Disasters in Academic Libraries

Ellis (2007: 69) asserts that there exists a wide number of man-made and natural disasters that are likely to struck libraries and other information centres. However, in the disaster management program for these libraries, there is need to have both reactive and proactive measures. It is important to appreciate that proactive measures need to be instituted in any library to curb possibility of the anticipated disasters. For instance, Long (2006: 71) provides that the level of disaster preparedness in libraries in many countries are quite high and many proactive in nature activities such as training, equipment and building preventive maintenance have been instituted. However, Warnasuriya (2005: 59) points out that most of these measures are implemented without undertaking environmental scan of the specific libraries which make measures and libraries in general to be vulnerable.

Diamond (2006: 101) notes that disasters are happening throughout the history of libraries and information services and some of them have even eliminated entire organizations. Indeed, disaster risk could be viewed as the product of the frequency and the severity of a certain unwanted event. In this context, the management of preparedness levels relates either to reducing the frequency or reducing the consequences of an event. Therefore, it is imperative to understand the types of disasters that libraries and other information centres are likely to face. According to Warnasuriya (2005: 42), water, earthquake, fire are just some of the most common disasters for libraries.

For instance, Halsted, Jasper and Little (2005:31) points that while all types of disasters have the potential of damaging libraries, water is not only the most common but also the most potent factor. Damage can be caused through a tsunami or floods from a nearby water body such as an ocean or river. Heavy rains, or wind driven hurricanes, cyclones and tornadoes also destroy collections. In all these natural disasters, water is a key damaging factor. Again, Kuuben (2003: 67) provides that apart from these natural causes, water can come into a library from broken tap water or drainage pipes, or seen in through leakages from walls, broken windows, doors or even from the ground. Moreover, even when the key disaster is a fire, activation of water sprinklers and fire-fighting equipment requires extensive use of water, which in turn causes damage to books (Diamond, 2006: 102). Nonetheless, Johnson (2005: 104) holds that vulnerability to water damage is higher when the library is located in the basement or the ground floor, or near a fire hazard prone area such as a canteen or a chemical laboratory.

Besides water, fire is another disaster threat faced by libraries. According to Kuuben (2003: 49), it can happen due to negligence, the short circuit caused by loose or faulty wiring or faulty switches. Sometimes fire can be intentionally caused damaging the cultural history and identity of an institution. Again, Aziagba and Edet (2008: 23) note that it is important to acknowledge that library resources are most often on paper or film, while the library furniture is often wooden. All these materials are inflammable. A fire in adjacent premises can easily spread to the library. The fire can damage and turn the books and other resources to ashes. Even when materials are not directly burnt soot and smoke

affect the other collection in the library. Moreover the fire prevention and firefighting methods also add to the damage of the material.

Besides fire, libraries are also targeted during wars, conflict and related risks. With respect to war, Kuuben (2003: 51) believes that libraries and other information centres are usually affected as collateral damage; just being in the wrong place. On the other hand, high intensity earthquakes lead to collapse of the building thus burying the books among the debris (Long, 2006: 19). Often, an earthquake is followed by tsunamis, heavy rains, landslides or fire which in turn destroys information materials in totality.

2.6 Mitigation Strategies in Disaster Management

Corrigan (2008: 104) acknowledges that disaster management training is a key element in mitigating disasters in any environment. According to Kuuben (2003), disaster management training should aim to raise the awareness of all staff regarding everyday safety and security issues and the steps they can take to reduce the likelihood of a disaster occurrence. Warnasuriya (2005: 64) supports this position as he holds that training should give all staff a clear idea of what they can expect to find in various disaster scenarios, such as fires and floods, and make them fully aware of their own roles and responsibilities, as well as those of their colleagues. For instance, Aziagba and Edet (2008: 267) posits that the training should provide opportunities for staff at all levels to practice particular activities, such as the removal of items from a disaster area with minimal damage and to familiarize themselves with materials and equipment. This will enable individuals to react more quickly in an emergency and help to give them greater confidence in their ability to cope with disasters.

Furthermore, Kuuben (2003: 57) points that the training should prepare them for what to do in the event of a disaster. Although some staff will need to be familiar with the use of materials such as plastic sheeting and blotting paper provided for use in salvage and recovery operations, they must also be made aware of their own limitations in skill and knowledge, particularly when dealing with valuable or delicate items, and, therefore, know when and where to seek expert advice. Training should encourage questions and feedback, with staff given opportunities to discuss general disaster management issues,

ask questions concerning materials, procedures and priorities, and raise specific questions on safety which can be addressed in further training sessions or staff meetings (Kuuben, 2003: 39).

2.7 Disaster Management Approaches in Academic Libraries

In mitigating disasters, risk and vulnerability assessment involves identifying the nature and magnitude of current and future risks from hazards to people, infrastructure and buildings (Long, 2006: 74). For instance, according to Aziagba and Edet (2008: 268), tsunami vulnerability analysis is fundamental to effective disaster planning as it is not possible to develop or implement sensible mitigative measures without a meaningful analysis. This process is based on a review of both technical features of hazards such as their location, intensity, frequency and probability and also the analysis of the physical, social, economic and environmental dimensions of vulnerability and exposure, while taking particular account of the coping capacities of the risk scenario (Kaur, 2009: 45). Through vulnerability analysis it is possible to identify which areas should be reinforced or relocated. Therefore, detailed information on which buildings, structures and group of people are vulnerable to tsunami impacts helps to develop cost effective mitigation measures (Long, 2006: 76).

In addition, Aziagba and Edet (2008: 267) notes that mitigation or risk reduction activities include structural and non-structural measure undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards. Preparedness dealing with the activities and measures taken in advance to ensure effective response to the impact of hazards, including the issuance of timely and effective early warnings and the temporary Provision of assistance or intervention during or after a disaster to meet the life preservation and basic subsistence needs of those people affected is made during the relief phase (Corrigan, 2008: 61).

The commencement of the recovery phase begins with the restoration of essential buildings and infrastructure services destroyed in the disaster and rehabilitation to assist the victims in returning to their pre-disaster livelihood or until the community's capacity for self-help has been restored (Corrigan, 2008: 73). Recovery is usually known as slow,

expensive and complex in terms of coordination and management (Kuuben, 2003: 36). However, it may present an opportunity for improvement in the functioning of the institution, so that risk from future events can be reduced while the community becomes more resilient (Ellis, 2007: 63).

Importantly, activities of vulnerability assessment, mitigation and preparedness are conducted as proactive approach while the activities conduct after the disasters are called reactive approach. Lack of proactive approach to disaster management caused more damage and it is encouraged more proactive activities for successful disaster management (Aziagba & Edet, 2008: 266). However, some natural disasters (droughts, floods and volcanic eruptions) are slow-onset and provide lead-time for proactive approach, while others (flash floods, tsunamis and cyclones) provide little or no lead-time for proactive measures (Halsted, Jasper & Little, 2005: 132). Therefore, an integrated approach which includes both proactive and reactive strategies is important for managing disasters successfully. This include evacuation of people and property from threatened locations (Ellis, 2007: 74).

Moreover, risks have to be determined and categorized according to the frequency and severity of their occurrence. Thus, the distinction and evaluation of risks at libraries is as follows: Risks from outside the building (e.g. library location, prevailing climatic and geologic conditions, potentially damaging human activities such as commercial or industrial premises, pollution, potential risks of civil disturbance or terrorist attacks etc.).

Besides natural disasters, risks from the building's structure and library services hampers the overall performance of a school library (Corrigan, 2008: 63). This include building's structure such as roofs, windows, skylights or areas below ground level, fire risks from internal issues such as electrical circuits, equipment or flammable substances, flooding risks from water transfer installations such as rain gutters, water pipes, air conditioning systems and fire suppression systems; and risks from human errors and carelessness. Again, there are some risks from human interference such arsons, vandalisms, civil disturbance, terrorist attacks and other security issues among others (Diamond, 2006: 107).

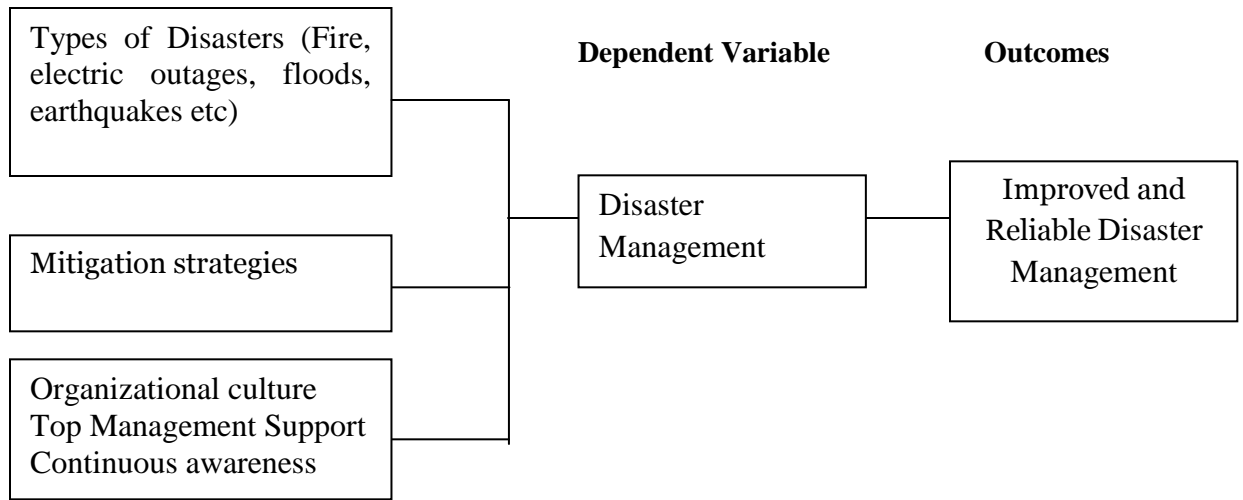
As Aziagba and Edet (2008: 265) posit “every library needs a disaster plan and that the plan needs to plan for the worst. It is okay to hope for the best, but you should plan for the worst”. According to the IFLA manual, five different stages need to be included in a disaster management plan. These include: Risk assessment which identifies potential risks should be evaluated and rated according to their likelihood of occurrence, as well as their consequences. Prevention and Protection which is concerned with the adoption of measures that will prevent an event from occurring, while; protection is concerned with measures to protect the library after the occurrence of an event. Preparedness which involves developing a disaster management plan, clarifying the roles of disaster response team members, ensuring the availability of the plan, revising the plan, staff training, identifying the priority material for salvaging, maintaining and updating the appropriate documents to support the implementation of the plan, establishing and maintaining links with outside agencies and individuals, collecting and maintaining supplies that will be used as an emergency equipment, arranging for immediate contingency funding, identifying and organizing a “recovery” area, drawing up various scenarios for re-establishing basic services to users. Reaction and Recovery actions that ensure the recovery of services to users, repairing building damages and insurance coverage.

2.8 Conceptual Framework

The conceptual framework is comprised of independent and dependent variables. In the independent variables, types of disasters such as fire, electric outages, floods and earthquakes are the threats to school libraries. It is thus important to have mitigation strategies both preventive and reactive for their effective management. In addition to mitigation strategies, the organizational culture need to be aligned to support disaster management, there is a need for top management support to ensure that there is available resources and continuous awareness of the disaster management program.

Figure 2.1: Conceptual Framework

Independent Variables



Source: Author 2014

2.9 Summary

School Libraries need to take practical measures to minimize the risk of disaster and they should be prepared to react quickly and effectively should a disaster occur. Having a written disaster control plan which outlines risks, safety procedures, staff responsibilities and reaction and recovery strategies is essential, but unless staff receive appropriate training in these areas, the plan is really little more than words on paper. Disaster control plans may be executed in response to a variety of incidents, from the minor and seemingly straight forward, to the major, where staff will have to operate in strange and trying circumstances. They are much more likely to be successful if staff are fully aware of what to expect and what to do, and if they have been given the opportunity to practice their roles beforehand. Disaster training is, therefore, an essential requirement of any disaster management.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter illustrates the main processes that were used in conducting the study. The key areas covered include the research design, target population, sampling, collection and analysis of data in the research study. In essence, this chapter forms perhaps the most important part of the study given that it provides a strong basis on which results; discussions, inferences and findings were drawn from to shed more light on the study topic. Precisely, in achieving this, the chapter advances a new, well-grounded and explorative set of ideas that helps to shed light into the assessment of disaster management in school libraries while using Aga Khan Senior School Library.

3.2 Research Design

Mixed approaches were used to gain in-depth knowledge into the disaster management of school libraries. This research took the mixed approach where it assessed disaster management practices in school libraries while using Aga Khan Senior School Library as the case study. The study hence used quantitative methods in its exploration. Creswell's (2003: 67) postulations concerning case studies suggest that a quantitative approach offers the best option for examining these approaches. In addition, interviews were used to supplement quantitative sources of data.

3.3 Area of Study

The study was conducted at the Aga Khan Academy Senior School, Nairobi library

3.4 Target Population

Kothari (2004: 103) defines population as the total number of units from which data can be collected such as people, events, artifacts or organisations. On the other hand, Nachmias and Nachmias (2004: 78) describe population as the element that meets the criteria for inclusion in a study. For this study, the target population was the top management of the school, teaching staff, library staff and the students of the Aga Khan Senior School who formed total target population of 502. Table 3.1 on pg. 18 illustrates the target population of the study.

Table 3.1: Illustration of the Composition of the Target Population of the Study

Category	Designation	Population
1	Top Management	2
2	Teaching Staff	48
3	Librarians	1
4	Students	450
	Total	502

Source: Aga Khan Academy Staff and Students Records (2014)

3.4.1 Sample Frame

The researcher employed sampling frames in his sampling techniques. Sampling frame is the list or other devices used to define researchers population of interest (Fowler, F. J (2002). This means that (the researcher) requested for lists of members in this population in order to use these lists as a resource that aided him to select a sample. Sample frame used in this study included list of staff members of Aga Khan Academy comprising of top management, teaching staff and librarian. It also included list of students. Since the research population comprised of people from the same institution, their registers were requested from their administration in order to facilitate the sampling process.

3.5 Sample and Sampling Technique

3.5.1 Sample Size

A sample is a set of respondents selected from a larger population for the purpose of determining parameters or characteristics of the whole population (Kombo, 2006: 28). In research work, the larger the sample, the more reliability is assured. However, it is important to keep in mind that other constraint factor such as the accessibility and the reliability of the sampled population also occur. Nachmias and Nachmias (2004: 89) insist on a ten percent sample for a population ranging from five hundred to one thousand five hundred, five percent sample for a population ranging from two thousand to five thousand and one percent for the population above five thousand. However, the study used 15 percent sample of the total population than the recommended 10 percent in order to have more precision in the study. Thus, 76 respondents were used as the sample size in the study.

Again, the quality of research work obtained from any given research depends on the sampling techniques employed by the researcher. It is therefore necessary to obtain data

from a smaller group or a subset of the total population in a way that the knowledge being generated can be representative of the whole study population. Table 2 on page 19 illustrates the sample size.

Table 3.2: Illustration of the Sample Size

Category	Designation	Population	Sample
1	Top Management	1	2
2	Teaching Staff	48	7
3	Library staff	1	1
4	Students	450	67
Total		504	76

Source: Author (2014)

3.5.2 Sampling Techniques

The population was then stratified into four homogenous groups which were top management, teaching staff, library staff and students. This method was used to reduce the degree of error in the sample and getting a more representative sample of the population (Babbie, 2010: 102). The stratum was then categorized under the top management of the school, teaching staff, library staff and the students of the Aga Khan Senior School. Therefore, the population was grouped following these categories hence forming four groups each having homogenous characteristics. Though, basing on the research population, there exist different needs and characteristics that go with each stratum. It was therefore important for the researcher to assign equal weights to each stratum. This was important since it was assumed that all library members are equally aware of the disaster management strategies at the school library. Therefore, the percentage that formed the research study sample was 15 percent of the total population and as each stratum contributed a 15 percent of its population to the sample.

Random sampling was the most effective technique in the case of this research and therefore it was employed. This is because the method is able to avoid biasness and it reduces sampling error in research. Again, random sampling gives equal chance to all subjects for selection. This ensured that the researcher has a representative collection from each stratum in the research population.

3.6 Data Collection Methods

Data collection is the process of gathering and measuring information related to study variables in an established and systematic fashion that helps in answering research questions, aid in testing hypotheses and evaluating outcomes (Konar, 2009: 47). In that case, there are various data collection methods that vary along a continuum which include quantitative and qualitative data collection methods. The quality of a study is determined by how well the research design was well understood and formulated. Based on this assertion, the study was implemented by using quantitative methods of data collection where questionnaires were used and supplemented by interviews as data collection tools.

3.6.1 Questionnaire

Questionnaires and interviews schedules were the only data collection tool that was used in the collection of data in the research study.

According to Kothari (2004: 176), this is one of the most common data collection tools employed in research works. Relevant questions were compiled on the study topic, having thoroughly reviewed the existing secondary sources to gain a background understanding of it. The questions on the questionnaires were carefully structured to reflect the aim and the objectives of this study.

In order to generate more comprehensive data, both closed and open ended questionnaires were used. A persuasive introductory letter was attached to rid out any suspicions that were held by respondents. Moreover, the respondents were requested to read carefully each question's accompanying instructions and respond to each question accordingly. Simple terms were used in compiling the research questions to avoid instances of ambiguities on the part of the respondents.

In choosing the questionnaires, the researcher was aware that they are less costly when compared to other data collection methods e.g. interviews. It is even a better way of collecting data from very large samples such as this case study. The researcher was able to ask very many questions using a single piece of paper and reach a large population without necessarily travelling. Besides this, the questionnaires to be used easily should

have understandable questions and the respondent responded at his or her own convenience.

3.6.2 Interviews

The study also used interviews in the collection of its data. Face-to-face interviews were conducted to gather more detailed information from the top management of the school, especially on matters relating to policies on disaster management. This method was used in order to collect data from the higher authority of the school. Importantly, the method was preferred since it has the strength of respondents being observed while answering questions.

3.7 Research Instruments

3.7.1 Pilot Study

Before embarking to actual data collection, a pilot study was conducted to test whether the study was to be successful given the prevailing circumstances and the study environment. This was conducted at the Oshwal Academy to determine feasibility of the study. According to Kombo (2006: 38), a small percentage of the sample population should be used in the pilot study. For that case, this study used only 4 participants for the pilot study since every one participant was representing each frame in the sample. The result of the pilot study was used to judge the feasibility of the proposed study. Corrective measures were taken as per the outcome of the pilot study. Any hinge was ironed out in order to pave way for a smooth study during the actual research.

3.7.2 Reliability and Validity

The reliability of the questionnaire was also tested during the pilot study to determine whether it is reproducible and consistent in the study. This helped to determine whether the questionnaire is capable of yielding similar results even when administered to same people but in different occasions. Nonetheless, this was determined by using different set of respondents in administering the same questionnaire but in different occasions to determine whether the answers are consistent. Validity of the study was considered through examining the questionnaire. As for such, the questionnaire was keenly crafted to ensure that it covers all research objectives in order to address all underlying issues under

investigation. Moreover, the process of data gathering was conducted with a lot of care to ensure that all aspects and issues are addressed in the questionnaire.

3.7.3 Ethical Considerations

According to Creswell (2003: 105), it is important to observe research ethics to be able to protect participants against psychological, social and financial harm. With respect to this study, those who were sampled were notified through an acknowledgement note where they were required to consent before they were included in the final sample. This was done in order to observe ethical issue of informed consent, which was vital in a study involving human participants (Kombo and Tromp, 2006). In addition, according to Statistical Act (2006), privacy of respondents is a key ethical consideration in any social study. As such, the questionnaires that were used in data collection did not require any identification details from respondents.

3.8 Data Presentation and Analysis

Data analysis was done upon completion of the data collection from the sample population. Since the study was quantitative, the data collected was summarized and presented by use of quantitative statistical methods in accordance to the objectives of the study. Descriptive statistics was used to describe the sample results and the findings generalized to the rest of the population. The collected data was then translated to codes where the answers to the questions were given codes. After coding of the data, its classification was done where the information was categorized in different classes according to specific characteristics. The classified data was again tabulated into table's columns and rows. Statistical techniques such as frequency distributions and graphical techniques were used in presentation of the findings. The statistical software that was used in this analysis was SPSS which was capable of computing many different procedures with different kinds of data (Kombo and Tromp, 2006). This software aided in faster data analysis since items such as graphs, pie charts will be generated automatically given information on the variables.

3.9 Summary

This chapter details the research method used which was quantitative and qualitative design, the area of the study, the target population, sample and sampling technique and the sample size. Data collection methods used were questionnaire and interviews. The chapter also sought the validity and reliability of the study. The area of pilot study was indicated. Ethical issues were considered, confidentiality of information adhered to and data analysis and presentation in relation to research questions and objectives stated.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the results of the data that was collected using questionnaires and interviews. The study aimed at assessing disaster management practices in school libraries and proposed strategies that will improve it. To attain this, as earlier stated, the study was grounded on five objectives which were to: find out types of disaster that the library is vulnerable to; establish the extent of management support to disaster management; establish how disasters are mitigated in the school libraries; propose suitable strategies that can be applied in mitigating disasters in the school libraries and finally to propose a framework that will be used to manage disasters in school libraries. Therefore, the chapter presents data collected from primary sources based on five main thematic areas of the study and also based on the objectives and research questions of this research study.

4.2 Presentation of Data from Questionnaire and Interviews

Significantly, the study used questionnaires and interviews in assessing disaster management practices in school libraries and proposed strategies that will improve it. The sample size was 76 respondents. Out of these, 67 students and seven teaching staff respondents were targeted using the questionnaire while one top management and one librarian respondents were targeted using interviews. For the respondents surveyed using questionnaires, 70 questionnaires were returned thus making a return rate of 97 percent, while the librarian and the top management respondents availed themselves for interviews making 100 percent of return rate for this segment. This translates to 95 percent response rate to this study.

Therefore, this section presents the results of the study that were obtained by use of the questionnaire and interviews and later analyzed by SPSS 17.0. The questionnaire was subdivided into five parts, each relating to a theme of the study. Part A of the questionnaire was intended to generate general information on the respondents, part B was designed to generate information on the types of disaster that the library is vulnerable to, part C intended to generate information on the extent of management support for

disaster management while part D was designed to generate information on how disasters are mitigated. Part E on the other hand helped to generate information on the suitable strategies that can be applied in mitigating disasters.

4.2.1 General Information

To begin with, the study sought to determine how long the respondents had been members of the Aga Khan Academy, Senior School Library. This was important as it helped to establish if the respondents had the requisite experience with the school library to give reliable information that could be relied upon on drawing conclusions and recommendations. With respect to this, as illustrated in table 4.1, it was established that most respondents have been members of the school library for a period of five to ten years as this category has 63.9 percent, while zero to five years were at 30.6 percent, 10 to 15 years and over 15 years both at 2.8 percent. A member of the top management interviewed reported that;

“A good number of staff have stayed in the school between 5 to 10 years and they are the majority.”

Therefore, it can be concluded that a substantial number of respondents have been members of the school library for longer periods, thus in better position to provide useful information relating to disaster management.

Table 4.1: Duration of Membership to the School Library

	Frequency	Percent	Valid Percent	Cumulative Percent
0-5yrs	22	30.6	30.6	30.6
5-10yrs	46	63.9	63.9	94.4
10-15yrs	2	2.8	2.8	97.2
over 15yrs	2	2.8	2.8	100.0
Total	72	100.0	100.0	

Source: Author (2014)

4.2.2 Designation of Respondents

Again, the study sought to determine the current designation of respondents involved in the study. This was important since it helped to determine if all stakeholders of the school library were involved in the study. As illustrated in table 4.2, school management,

teaching staff, librarians, and students of Aga Khan Academy Senior School Library were involved in the study in 1.4, 9.7, 1.4 and 87.5 percent respectively. This reflects the fact that in any school library, students usually comprise the largest number, followed by teaching staff. Thus, respondents truly represented Aga Khan Academy Senior School Library across the spectra.

Table 4.2: Designation of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
School management	1	1.4	1.4	1.4
Teaching staff	7	9.7	9.7	11.1
Librarian	1	1.4	1.4	12.5
Student	63	87.5	87.5	100.0
Total	72	100.0	100.0	

Source: Author (2014)

4.2.3 Types of Disasters Vulnerable to the Library

Whilst the study was aimed at assessing disaster management practices in school libraries and proposed strategies that will improve it, it was important for the researcher to determine the types of disasters that are vulnerable to the school library. This was important as it helped to determine if such disasters are planned for by the school library. Therefore, when the question was asked on which disasters is the school library vulnerable to, the results as illustrated below in table 4.3 were obtained. From the results, it was affirmed by 33.3 percent of the respondents that the school library is vulnerable to fire, 29.2 percent held that the school library is exposed to flood, exposure to wars and students riots were held by 26.4 percent of the respondents while 11.1 percent were of the opinion that the school library is exposed to other disasters such negligence, poorly maintained buildings among others.

The Researcher interviewed the Librarian and to clarify whether there are disasters that are vulnerable to the library. The librarian reported that;

“The library is vulnerable not only to fire, flood, wars and student riots but also negligence and poorly maintained buildings.”

Table 4.3: Disasters Vulnerable to the School Library

	Frequency	Percent	Valid Percent	Cumulative Percent
Fire	24	33.3	33.3	33.3
Flood	21	29.2	29.2	62.5
Wars/students riots	19	26.4	26.4	88.9
Others	8	11.1	11.1	100.0
Total	72	100.0	100.0	

Source: Author (2014)

4.2.4 Disaster Management Programs in School

Importantly, in line with this, the study sought to establish if the school library has a disaster management program. For that matter, when the question about whether the library has a disaster management program was posed, the results as indicated in table 4.4 were obtained. This question was useful as it helped to determine if measures were in place to help address any disaster. From the findings, it was affirmed by 73.6 percent of the respondents that the library has a disaster management program in place while only 26.4 percent were of the opinion that there was no such program. Through the Interview with top management it was reported that;

“Indeed there was a disaster management program.”

It can thus be affirmed that there is a disaster management program in the school library but not all its members are aware of its existence.

Table 4.4: Disaster Management Programs in School

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	53	73.6	73.6	73.6
No	19	26.4	26.4	100.0
Total	72	100.0	100.0	

Source: Author (2014)

4.2.5 Types of Disasters Planned by the Library

Besides, after affirmation that indeed there is a disaster management program the study sought to establish the types of disasters which are planned for by the school library. Thus, when the question was posed as to the types of disasters that are planned for by the school library, the results as indicated in table 4.5 were obtained. From the findings, it

was held by the respondents that fire, flood, wars and student riots and other forms of disasters are planned for by the school library in 45.8, 38.9, 12.5 and 2.8 percents respectively. The interview with the Librarian sought to clarify whether the school plans for different types of disasters that are fire, flood, wars and student riots and others. The interviewee reported that;

“The Aga Khan academy has a disaster management plan for the whole school which is not only in paper but is put into practice as the school holds impromptu drills to prepare for any form of disaster.”

This indicates that fire and floods are the most anticipated by the library thus being planned for and library members being aware to the largest extent.

Table 4.5: Types of Disasters Planned by the Library

	Frequency	Percent	Valid Percent	Cumulative Percent
Fire	33	45.8	45.8	45.8
Flood	28	38.9	38.9	84.7
Wars/students riots	9	12.5	12.5	97.2
Others	2	2.8	2.8	100.0
Total	72	100.0	100.0	

Source: Author (2014)

4.2.6 Responsibility for Preparing and Maintaining Disaster Plan

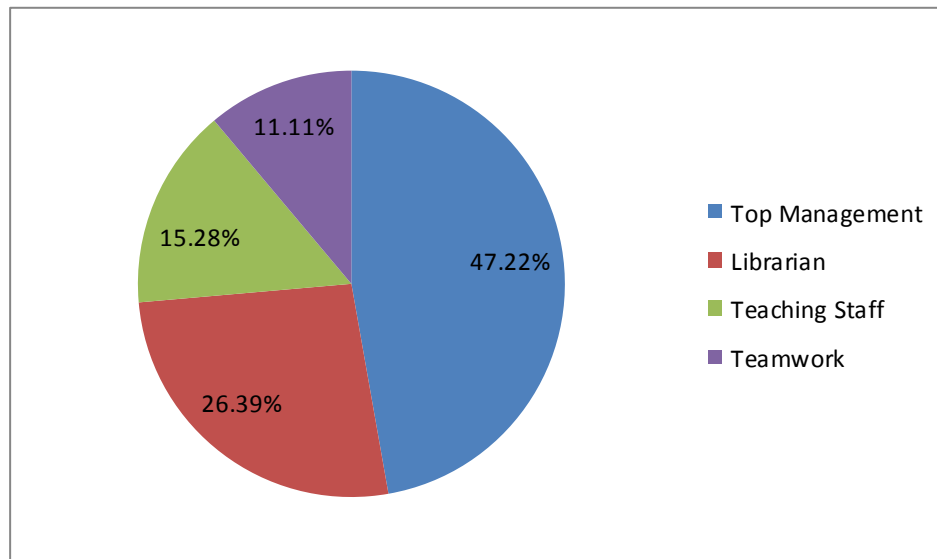
Again, the study sought to establish the people who are responsible for the preparation and maintenance of the disaster management plan for the school library. This was important as it helped to establish if such initiatives are supported by the top management. As such, when the study posed a question about who is responsible in preparing and implementing the disaster management plan for the school library, the findings as illustrated in figure 4.1 were obtained. Majority of the respondents held that it is the top management, which prepares and maintains disaster management plan for the library as 47.2 percent of the respondents believed so. On the other hand, 26.4 percent of the respondents believed that the librarians are the ones responsible for preparing and implementing the disaster management plan. The interview helped to find out who is

responsible for preparation and maintenance of the disaster management plan. When interviewed, one of the top management reported that;

“ The librarian has been assigned the responsibility by the school administration.”

It was clear that top management was responsible. Teaching staff and teamwork collaboration were put at 15.3 and 11.1 percent respectively.

Figure 4.1: Responsibility for Preparing and Maintaining Disaster Plan



Source: Author (2014)

4.2.7 Frequency of Reviewing the Library Disaster Management Plan

It was important to know the period to which the disaster management plan takes before it is reviewed. This question was useful in determining if the plan is always kept upto date. With respect to this, the study posed a question about how often the disaster management plan is reviewed. For that matter, the results as illustrated in table 4.6 and figure 4.7 were obtained. From the findings, 4.2 percent of respondents held that the review is done every two years while 33.3 percent of the respondents did know the frequency of the review. On the other hand, 62.5 percent of the respondents did not know if the review ever takes place. When interviewed about the review of the disaster management plan, the top management reported that;

“Review is done after every two years.”

Thus, it can be affirmed that review and maintenance of the plan is not inclusive as majority of stakeholders are not involved.

Table 4.6: Frequency of Reviewing the Library Disaster Management Plan

	Frequency	Percent	Valid Percent	Cumulative Percent
Every two years	3	4.2	4.2	4.2
Not at all	24	33.3	33.3	37.5
Don't know	45	62.5	62.5	100.0
Total	72	100.0	100.0	

Source: Author (2014)

4.2.8 Availability of a Disaster Management Policy

The second objective of the study was to determine the extent of management support to disaster management. The study sought to find out whether there is a disaster management policy in place. This question was relevant in helping to establish if there was a defined framework for the management of the disasters. With respect to this, the findings as indicated in table 4.7 were obtained. The majority of the respondents at 90.3 percent held that there is no disaster management policy for the school library while only 9.7 percent believed that the library has a policy for disaster management. However, from the interview with the librarian, it was reported that;

“There is a disaster management policy but other stakeholders are not aware of it.”

Table 4.7: Availability of a Disaster Management Policy

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	7	9.7	9.7	9.7
No	65	90.3	90.3	100.0
Total	72	100.0	100.0	

Source: Author (2014)

4.2.9 Policy Endorsement by the Top Management

It was imperative to establish if the existing policy had been endorsed by the top management. As such, when the study posed as a question regarding the endorsement of

the policy by the top management. The findings were as illustrated in table 4.8. For those who had confirmed availability of the policy affirmed that that indeed the policy has been endorsed by the top management of the school.

Table 4.8: Policy Endorsement by the Top Management

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	7	9.7	100.0	100.0
System	65	90.3		
Total	72	100.0		

Source: Author (2014)

It was important for the study to determine if the management provides resources for disaster management. This question helped to determine if the top management is supporting disaster management initiative by availing the required resources. The findings were as illustrated in table 4.9 below. From the findings, 2.8 percent of the respondents held that the top management provides resources for disaster management to a very high extent, 6.9 percent believed they do this at high extent, 12.5 percent held that they provide resources on average while 66.7 percent believed that the resources provided are below average. On the other hand, 11.1 percent held that there are resources provided by the top management. From the interview with the librarian, it was reported that;

“The school provides limited resources for disaster management.”

It can therefore be affirmed that the top management of the school provides resources for disaster management, but such resources are not sufficient as they are below average.

Table 4.9: Provision of Resources for Disaster Management

	Frequency	Percent	Valid Percent	Cumulative Percent
Very high extent	2	2.8	2.8	2.8
High extent	5	6.9	6.9	9.7
Average	9	12.5	12.5	22.2
Below average	48	66.7	66.7	88.9
Not at all	8	11.1	11.1	100.0
Total	72	100.0	100.0	

Source: Author (2014)

4.2.10 Disasters Mitigation in School Libraries

The third objective of the study was to establish how disasters are mitigated in school libraries. Thus the study posed several questions to determine how disasters are addressed by the school library. First and foremost, the study sought to establish if the school library has ever faced a disaster. With respect to this, it was affirmed by 72.2 percent of respondents that the school library has faced disaster before while only 27.8 percent were of the contrary opinion that the school has never faced the disaster This is illustrated in table 4.10.

Table 4.10: Disasters Mitigation in School Libraries

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	52	72.2	72.2	72.2
No	20	27.8	27.8	100.0
Total	72	100.0	100.0	

Source: Author (2014)

4.2.11 Types of Disasters in School Libraries

The study went further and sought to understand the types of disasters that the school library has faced before. This was important to establish vulnerability of the library to such disasters. With respect to this, the findings were as illustrated in table 4.11 below. In the findings, 45.8 percent of the respondents held that the library has suffered from flood, 25.0 percent of the respondents held that the library has suffered from negligence while 29.2 percent believed that the library has suffered from poor maintenance of the library building. When interviewed the librarian reported that;

“The library has suffered from flood, negligence and poorly maintained building.”

These are three different types of disasters which are all disastrous to the library materials.

Table 4.11: Types of Disasters in School Libraries

	Frequency	Percent	Valid Percent	Cumulative Percent
Flood	33	44.6	45.8	45.8
Negligence	18	24.3	25.0	70.8
Poorly Maintained Building	21	28.4	29.2	100.0
Total	72	97.3	100.0	
System	2	2.7		
Total	74	100.0		

Source: Author (2014)

4.2.12 Mitigation of Disasters

The study sought to know which disasters that the library has faced and how they were mitigated. Thus, when this question was posed to the respondents, the results were as illustrated in table 4.12 below. It was determined that the school library had mitigated its disasters through three main measures. 40.3 percent of the respondents held that the disaster had been controlled through proper drainage, 34.7 percent held that disasters had been controlled through institution of library rules and regulations while 25.0 percent held that disasters had been controlled through maintenance of the library building.

Table 4.12: Mitigation of Disasters

	Frequency	Percent	Valid Percent	Cumulative Percent
Proper Drainage	29	40.3	40.3	40.3
Library Rules and Regulations	25	34.7	34.7	75.0
Building Maintenance	18	25.0	25.0	100.0
Total	72	100.0	100.0	

Source: Author (2014)

4.2.13 Disaster Management Team

The fourth objective of the study was to establish the suitable strategies that can be applied to improve disaster management of the school library. This was imperative as any disaster management program requires regular improvements. The study sought to find out about members of disaster management team who should be members of the disaster management team of the school library. With respect to this, the results were as illustrated in table 4.13 below. When interviewed the Principal pointed out that;

“ The top management is responsible for disaster management program.”

The study established that there are four categories of people who should comprise the disaster management team. Respondents held that representatives of library users, teaching staff, library staff and top management at 38.9, 11.1, 23.6 and 26.4 percent respectively.

Table 4.13: Disaster Management Team

	Frequency	Percentage	Valid Percentage	Cumulative Percent
Representatives of Library Users	28	38.9	38.9	38.9
Teaching Staff	8	11.1	11.1	50.0
Library Staff	17	23.6	23.6	73.6
Top Management	19	26.4	26.4	100.0
Total	72	100.0	100.0	

Source: Author (2014)

4.2.14 People Incharge of Disaster Management Program

The study went ahead to determine the person who should be in charge of disaster management program of the school library. This was important as in any project management, there must be project managers. The findings as indicated in table 4.14 were obtained. The results indicated that 62.5 percent of the respondents held that the school librarian should be the one in charge of the disaster management program. Only 20.8 percent and 16.7 percent held that the school principal and the school director should be in charge of the disaster management program respectively.

Table 4.14: People Incharge of Disaster Management Program

	Frequency	Percent	Valid Percent	Cumulative Percent
School Principal	15	20.8	20.8	20.8
School Director	12	16.7	16.7	37.5
School Librarian	45	62.5	62.5	100.0
Total	72	100.0	100.0	

Source: Author (2014)

4.2.15 Review of the Disaster Management Program

The study sought to determine how frequent the disaster management program for the school should be reviewed. In line with this, as illustrated in table 4.15, it was found out

that the majority of the respondents believe that the review of the disaster management program should be done once a year as 52.8 percent were of this view. On the other hand, 30.6 percent of the respondents held that the review should be done once in five years while 11.1 and 5.6 percent of the respondents believed that it should be done twice a year and once in ten years respectively.

Table 4.15: Review of the Disaster Management Program

	Frequency	Percent	Valid Percent	Cumulative Percent
Twice a Year	8	11.1	11.1	11.1
Once a Year	38	52.8	52.8	63.9
Once in Five Year	22	30.6	30.6	94.4
Once in Ten Years	4	5.6	5.6	100.0

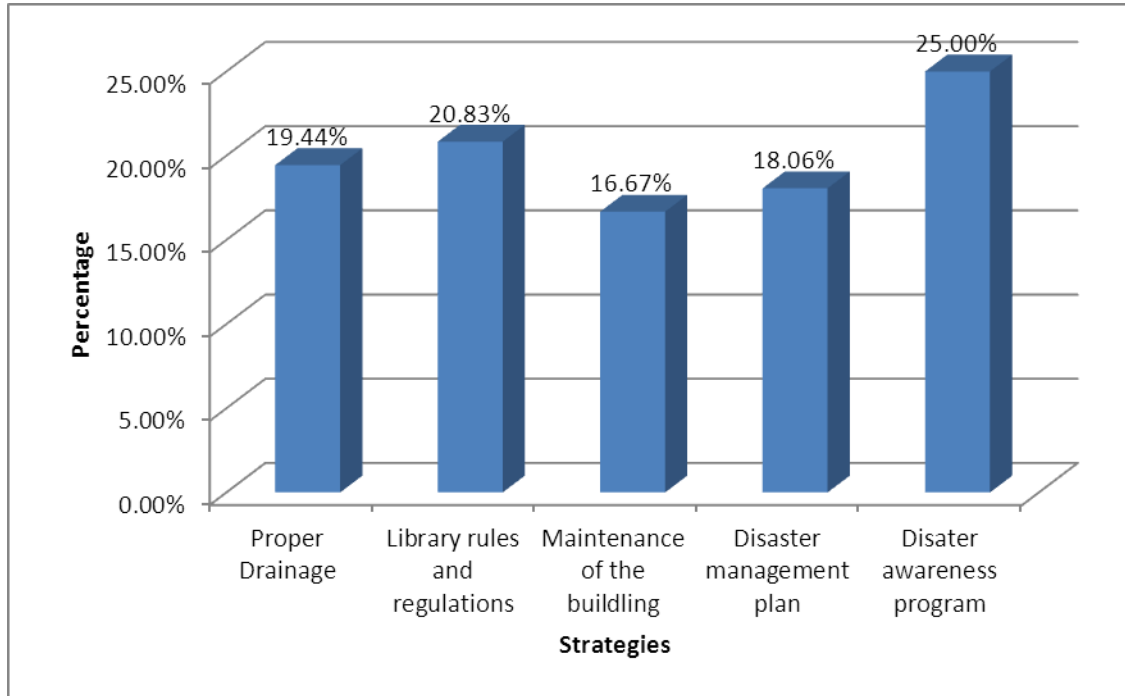
Source: Author (2014)

4.2.16 Suitable Strategies for Mitigating Disasters

Lastly, the study set to determine some of the suitable strategies that can be applied in mitigating disasters in the school libraries. This was an important aspect of the study as it helped to establish improvement strategies for the disaster management program. The findings as illustrated in table 4.2 were obtained. From the findings, it was established that there are five ways through which the school library can implement to improve its mitigation measures for the disasters. These were as follows: proper drainage, library rules and regulations, maintenance of the building, disaster management plan and disaster awareness program at 19.4, 20.8, 16.7, 18.1 and 25.0 percent respectively. The librarian the in the interview illustrated that;

“ Proper measures are taken to mitigate disasters like; proper drainage, library rules and regulations maintenance of the building, disaster management plans and disaster awareness program.”

Figure 4.2: Suitable Strategies for Mitigating Disasters for the School Library



Source: Author 2014

CHAPTER FIVE

SUMMARY OF KEY FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

Libraries including school libraries need to take practical measures to minimize the risk of disaster and they should be prepared to react quickly and effectively should a disaster occur. Having a written disaster control plan which outlines risks, safety procedures, staff responsibilities, and reaction and recovery strategies is essential, but unless staff receive appropriate training in these areas, the plan is really little more than words on paper. The chapter thus presents a summary of the findings, provides a conclusion, recommendations, and suggests areas of future research.

5.2 Summary of the Finding

S\NO	OBJECTIVES	FINDINGS
1.	To assess types of disaster that the Aga Khan Academy, senior school library is vulnerable to	The study established that the school is vulnerable to fire, floods, exposure to war, students' riots, negligence and poorly maintained buildings.
2.	To establish the extent of management support to disaster management practices of the Aga Khan Academy senior school library.	It was established that that there is a disaster management program in the school library but not all know its existence. With respect to this it was found out that fire, floods, wars and students' riots and other forms of disaster are planned for by the school library in 45.8, 39.9, 12.5 and 2.8 percent respectively which indicated that fire and floods are the most anticipated by the library thus being planned for library members being aware to the largest extent.
3.	To establish how disaster are mitigated in the Aga Khan academy senior school library	Besides, it was determined that there is disaster management policy but majority of stakeholders are not aware of its existence. In

		close association, it was confirmed availability of the ``policy has been endorsed by top management of the school. Again, it was established that the top management of the school provides resources for disaster management, but resources are not sufficient as they are below average.
4.	To propose suitable strategies that can be applied in mitigating disasters in the Aga Khan Academy, senior school library.	In determining how disasters are addressed by the school library, it was established that the school library has mitigated its disasters through three main measures. These has been through proper drainage, library rules and regulations, and also through proper maintenance of library building
5.	To give a framework to be used to manage disasters in the Aga Khan Academy, Senior school library.	In establishing suitable strategies that can be applied to improve disaster management practice of the school library management team. These include representatives of library users, teaching staff, library staff and top management. Again, there should be proper drainage, library rules and regulations, maintenance of building, disasters management plan and disasters awareness program.

5.3 Conclusion

In Conclusion, it can be affirmed that school libraries are faced with a number of disasters which need to be properly managed by putting in place the necessary mitigation measures. From the findings of the study, school libraries face disasters such as fire, flood, wars or student riots, negligence and poor maintained buildings. However, for disasters to be properly managed, it is important that a disaster management policy should be put in place to govern its implementation. This disaster management policy

must be endorsed by the top management of the school for it to be binding for all school stakeholders.

In addition to the disaster management policy, there should be a disaster management plan which outlines how specific disasters should be mitigated in the school library. In addition, there should be a disaster management team for the library which should comprise of the representatives of all library users, but headed by the school librarian given that he/she is the most knowledgeable library expert in the institution.

Again, in the development of the disaster management program, all library stakeholders should be involved for it to be all inclusive. This helps to prevent dangers of the program being resisted by some quota of the stakeholders. In addition, the program should be regularly reviewed and updated on an annual basis in order ensure it remains relevant. This is important as it helps to ensure that the disaster management program remain proactive and reactive.

5.4 Recommendations

The study recommends a number of issues to be addressed in order to strengthen the school libraries disaster management program. To begin with, the study recommends that there should be an awareness program on disaster management program and policies that are put in place by school libraries. The awareness program will help to make the stakeholders aware of the program and also be conversant with the disaster management policy. This will assist in improving the effectiveness of the program.

Also, the top management should sufficiently provide resources required for disaster management. These resources are in form of the personnel, facilities, equipments and financial resources that will help in ensuring that disaster management activities are adequately provided for.

Furthermore, library rules and regulations should be regularly reviewed, revised and updated. This will help to address threats of negligence, vandalism and other forms of disasters that may occur due to poor rules and regulations. This will aid in fostering discipline among library users. There should be a Disaster management plan, which will

assist in planning for disaster in case it happens. The plan will document the procedures to follow in case of disaster. In addition, there should be a disaster management team put in place for the library which should comprise of the representatives of all library users, but headed by the school librarian given that he/she is the most knowledgeable library expert in the institution.

5.5 Future Research

The study has identified a number of gaps in the area of disaster management for the school libraries. Given the fact that school libraries in the current technological environment are also responsible for the management of digital information materials, it is imperative that there should be disaster management program to cater for such electronic materials. Thus, the study recommends for future research to be carried on disaster management of electronic information resources in school libraries.

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APPENDIX I: LETTER OF INTRODUCTION

Kimita Waweru
Department of Library and Information Science
University of Nairobi
P.O. Box 30197-00100
Nairobi.

Dear Respondent,

RE: INTRODUCTION LETTER

I am a Master of Library and information Science student in the Department of Library and Information Science, University of Nairobi. At present, I am conducting a research titled; *Assessment of Disaster Management Practices in School Libraries with Reference to Aga Khan Academy Library*. The purpose of this study is to collect data and information from students and staff of the Agah Khan Academy Senior School, Nairobi.

You have been selected to participate in this study. The information and opinions you provide are purely for academic purposes of the study and shall remain strictly confidential.

Thank you in advance for your cooperation.

Yours faithfully,

Kimita Waweru
Registration Number: C54/62502/2013

APPENDIX II: QUESTIONNAIRE

Please read each question carefully and follow instructions where necessary. Kindly answer all the questions to the best of your ability. Indicate with a tick or fill in the space(s) provided. All answers will be kept confidential and will only be used for the purpose of this study.

SECTION A: GENERAL INFORMATION

1. Gender:

Male Female

2. Duration of stay at the school:

0-5 years 5-10 years
10-15 Over 15 years

3. Designation:

School management Librarian
Teaching staff Student

Other (Specify).....

SECTION A: TYPES OF DISASTER THAT THE LIBRARY IS VULNERABLE TO

1. a) Which disasters is the school library likely to be vulnerable to?

- i)
- ii)
- iii)
- iv)

b) If yes, in question 1, what types of disasters are planned for the school library?

- i)
- ii)
- iii)
- iv)
- v)

2. Does the school library have a disaster management program?

Yes

No

3. Who is responsible for preparation and implementation of the disaster plan for the school library?

i)

ii)

iii)

iv)

4. How often is the disaster plan reviewed?

Annually

Every two years

Every three years

Never reviewed

Others (specify):

5. Who responds to these disaster management issues?

i)

ii)

iii)

iv)

SECTION B: EXTENT OF MANAGEMENT SUPPORT TO DISASTER MANAGEMENT

6. a) Is there a disaster management policy in place?

Yes No

b) If yes, has the policy been endorsed by the top management?

Yes No

7. Does the management provide resources for disaster management?

Highest extent

High extent

Average

Below average

Not at all

8. Does the management support current awareness on disaster management programs for the school library?

Yes No

SECTION B: HOW DISASTERS ARE MITIGATED

9. a) Has the school faced any disasters?

Yes No

b) If yes, indicate the type of disasters experienced?

- 1.
- 2.
- 3.
- 4.

10. How has these disasters been prevented?

- 1.
- 2.
- 3.
- 4.

11. a) Is there a team responsible for disaster management?

Yes No

- b) If yes, who are the members of the team?
- i)
 - ii)
 - iii)
 - iv)

SECTION B: SUITABLE STRATEGIES THAT CAN BE APPLIED IN MITIGATING DISASTERS

12. Who should be members of the disaster management team of the school library?

- i.
- ii.
- iii.
- iv.

13. Who should be in charge of the disaster management team of the school library?

- 1. School principal
- 2. School Librarian
- 3. School Director
- 4. Other (specify):

14. How often should the disaster management program for the school library be reviewed?

- Twice a year
- Annually
- Once every two years
- Others (specify):

15. What are the suitable strategies that can be applied in mitigating disasters in the school library?

- i)
- ii)
- iii)
- iv)

APPENDIX III: INTERVIEW SCHEDULE

1. Which disasters is the school library vulnerable to?
2. Does the school library have a disaster management program
3. If yes in question 1, what types of disasters are planned for the school library?
4. Who is responsible to prepare and implement the disaster plan for the school library?
5. How often is the Disaster Plan reviewed?
6. Who responds to these disasters when they occur?
7. Is there a disaster management policy in place?
8. If yes, has the policy been endorsed by the top management?
9. Does the management provide resources for disaster management?
10. Does the management support current awareness on disaster management programs for the school library?
11. Has the school faced any disasters?
12. If yes, what has been these disasters?
13. How has these disasters been mitigated?
14. Is there a team responsible for disaster management?
15. If yes, who is comprised in this team?
16. Who should be members of the disaster management team of the school library?
17. Who should be in charge of the disaster management team of the school library?
18. How often should the disaster management program for the school library be reviewed?
19. What are some of the suitable strategies that can be applied in mitigating disasters in the school library?