# Disaster control practices among library staff in Federal University Libraries in North East, Nigeria

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## Abstract

*This study examined Disaster control practices among library staff in federal universities in North East, Nigeria. Four research questions guided the study. Four hypotheses were formulated and tested at 0.05 level of significance. The design of the study was descriptive survey research. The population of the study comprised of 345 Professional and Para-professional library staff in federal university libraries in North East, Nigeria. The sample population of the study was the entire population as it was considered manageable in size. Questionnaire and observation checklist were the instruments employed for data collection. A total of 217(62.9%) of the questionnaire were retrieved. Data collected was analysed using frequency, mean and standard deviation to answer the research questions. The t-test statistics was used in testing the hypotheses at (p<0.05) level of significance. Data collected from the interview were analysed qualitatively. The study recommended the need for federal university libraries to create periodic awareness forum for both the library staff and users on matters relating to disaster and preventive steps and regular training programs should be organized to enhance disaster control practices in libraries of the federal universities in North East, Nigeria.*

**Keywords:** University Libraries; Information Resources; Mitigation measures; Disaster Control Practices; Library Staff.

## Introduction

Throughout history, libraries have faced numerous threats, ranging from natural disasters like floods, fires, and harmattan to human-induced issues such as leaking roofs, mutilation, insects, fungi, and theft. Poor disaster control practices have led to significant damage in libraries. Oluwatola (2015) reported that no country is immune to these threats, citing examples from China, Indonesia, Iran, Pakistan, and African nations like Nigeria, South Africa, and Ghana, which are susceptible to earthquakes, fire outbreaks, flooding, terrorism, and kidnappings. Consequently, disaster control practices have become mandatory for all institutions, including university libraries.

University libraries, crucial for educational advancement, play a pivotal role in supporting teaching, learning, research, and consultancy activities. To ensure effective service delivery, libraries must be prepared to handle disasters. Feather and Sturges (2017) define a university library as a collection of information resources organized and maintained by an institution. Similarly, Ansaar (2019) views university libraries as organized institutions preserving the heritage of civilizations from ancient times to modern libraries, which serve as hubs for acquisition, processing, maintenance, and dissemination of varied information resources.

Information resources are essential for library operations, and their preservation is crucial for intellectual content and knowledge communication. Muboful (2020) emphasizes the importance of information resources in library operations. Libraries must ensure safety of its information resources through measures such as disaster control practices. The United Nations International Strategy for Disaster Reduction [UNISDR] (2012), defined disaster as a severe disruption causing widespread losses beyond a community's coping capacity. Therefore, libraries are not immune to disasters and their information resources need to be safeguarded from destruction. Idiegbeyan-Ose et al. (2018) categorize library disasters as natural (earthquakes, hurricanes) and man-made (arson, terrorism). The prevalence of disasters in university libraries necessitates the establishment of disaster control practices.

Disaster control practices involve measures taken before, during, or after the occurrence to minimize effects, and initiate recovery. The World Health organization (2020) and the National Emergency Management Agency (2021) described disaster control practices as procedures and immediate measures taken to prevent a situation from becoming a disaster. The International Federation of Red Cross and Red Crescent Societies (2019) outlines four steps involves in disaster control practices such as: preparedness, prevention, response, and recovery. These steps are vital for minimizing the impact of disasters on library information resources and therefore, they must be properly adopted through library staff.

Library staff, comprising professionals and para-professionals, play a crucial role in disaster control practices. Library staff comprises of professional, para-professional and administrative staff. Professional staff, with qualifications in library and information science, are responsible for administrative functions and decision-making. Para-professionals, possessing diploma certificates, assist in managing library activities and ensuring the organization of information

resources. Lack of established disaster control practices in libraries posed a threat to resources, service delivery, and staff development. Therefore, it is essential to establish robust disaster control practices in federal university libraries in North East, Nigeria.

## Statement of the Problem

Disaster control practices are essential for effective information resources preservation in libraries. The practices will assist university libraries to effectively respond to emergency situation rapidly. The need to preserve intellectual contents for future use is essential in equipping library staff with the knowledge of handling disaster equipment's and protects library buildings from destruction in an event of disaster. Lack of disaster control practices in federal university libraries will create danger to information resources. Absence of disaster control practices can lead to a serious threat to the security of library and destruction of properties; creating difficulty in the preservation of information resources. The consequences of which will further result to a serious disruption of library services. It may also accompany with reduction in volumes of print and non-print information resources in libraries in an event of fire disaster which consequently affect teaching and learning as well as unsatisfactory library services and frustration to users. These factors among others propelled the investigation of this study and also accounted for the reason why the need for effective preservation of information resources in libraries is necessary and thus, further necessitated the conduct of this study, "disaster control practices among library staff for effective information resources preservation in federal university libraries in North East, Nigeria" with a view to identifying the preventive, preparedness, responses and recovery measures in university libraries under study.

## Objectives

The general purpose of this study is to examine disaster control practices among library staff for effective information resources preservation in libraries of Federal Universities in North East, Nigeria. This study will specifically:

1. Find out the disaster control practices used in Federal Universities in North East, Nigeria.

2. Ascertain mitigation measures taken to prevent disaster occurrence in Federal Universities in North East, Nigeria.

3. Identify challenges associated with disaster control practices in Federal Universities in North East, Nigeria.

4. Determine strategies for facilitating disaster control for effective information resources preservation in federal universities in North East, Nigeria.

## Hypotheses

The following null hypotheses were formulated to guide the study and were tested at 0.05 level of significance.

**Ho1:** There is no significant difference in the mean ratings of Professional and Para-professional staff on disaster control practices used in Federal Universities in North East, Nigeria

**Ho2**: There is no significant difference in the mean ratings of professional and Para-professional staff on the mitigation measures taken to prevent disaster occurrences in Federal Universities in North East, Nigeria

## Literature Review

### University Libraries

University libraries, crucial centers for educational resources, are expected to proactively control the provision of information resources to ensure effective service delivery for university communities. Joseph and Aliyu (2017) highlight the significance of university libraries for undergraduates, providing relevant and up-to-date information materials essential for learning various courses. These libraries are established to advance learning, teaching, and research, aligning with the goals of the communities they serve. Adeniran (2013) emphasizes the essential role of university libraries in contributing to knowledge generation and catering to a diverse range of knowledge seekers. O'Donnell (2021) notes that modern university libraries operate within versatile and interactive learning environments, utilizing digital technologies to support evolving teaching, learning, and research practices.

University libraries in Nigeria play a significant role in fulfilling the mandates of teaching, research, and community services, contributing to the social, political, and economic development of the country.

### Information Resources in Libraries

Information resources are vital for the development of the academic system. Chima and Nwokocha (2013) define information resources as materials, strategies, manipulations, apparatuses, or consultations enhancing research and development. These resources encompass data and information used by organizations, including equipment, facilities, software, and data designed to collect, process, store, retrieve, display, and transmit information. Umoh (2017) emphasizes that university libraries provide a collection of information resources in print and non-print formats, supporting various academic needs from undergraduate instruction to post-graduate research.

The effective use of library information resources is crucial for knowledge development, and their preservation is essential against potential disasters. University libraries must take adequate measures to ensure the safety and supervision of information resources.

### University Library Staff

University library staff play a key role in disaster management and are involved in all library operations. According to the American Library Association (2021), library staff manage libraries, contribute specialized expertise, engage in routine activities, and supervise or direct other staff. Training staff at regular intervals is crucial to enhance their disaster management capabilities. University library staff also play a vital role in connecting users to information resources and contribute to developing students' literacy skills and enthusiasm for reading.

**Disaster Control Practices in Libraries**

Disaster control practices involve activities aimed at addressing disastrous situations, including planning, risk assessment, training, and financial preparations for successful implementation. Due to the nature of resources stored in libraries, which predisposes them to disasters like fire and floods, libraries should take the lead in disaster control campaigns within their universities. McIlwaine (2012) emphasizes the importance of disaster control planning, considering the unique environment and resources of each library. Disaster control practices encompass organized efforts to prevent, prepare for, respond to, and recover from natural and man-made disasters. Matthews and Eden (2017) note that disaster control involves broader management issues, including finance, risk assessment, and training. Disaster control practices can be denoted as a processes or strategies put in place to manage catastrophic events, involving prevention, preparedness, response, and recovery.

It is crucial for federal university libraries in North East, Nigeria, to take proactive steps by formulating disaster control plans that consider their environmental peculiarities and available resources.

**Challenges Associated with Disaster Control Practices in Libraries**

Disaster control practices in university libraries are essential for avoiding potential calamities. Khalid and Dol (2015) emphasize that controlling disasters is the primary defense mechanism, and adequate preparation is necessary to minimize or eliminate their impact. Kaur and Mahajan (2021) highlight the role of university libraries as nurseries for thought and research, making it imperative for them to be prepared for all types of disasters, whether natural or man-made. However, libraries worldwide, including those in Ghana, have faced challenges in disaster preparedness. A study by Ayoung, Boatbil, and Baada (2015) in Ghana revealed obstacles such as a lack of security policies, poor physical security, inadequate firefighting apparatus, poor cooperative networks, and insufficient funding hindering effective disaster preparedness in academic libraries. Factors like a lack of emergency exits, inadequate fire extinguishers, insurgency activities, and insufficient budgets for disaster control facilities have also been identified as obstacles to effective information resource preservation in libraries.

**Strategies for Facilitating Disaster Control Practices for Effective Information Resources Preservation in Libraries**

Disasters underscore the importance of disaster control practices in libraries, prompting the adoption of various strategies to minimize the loss inflicted on collections. Nancy (2016) suggests the adoption of video surveillance and CCTV systems for managing disasters arising from vandalism, serving as a way to monitor and record evidence of misconduct in the library. Other measures include staff surveillance of stock and reading areas, the use of human security guards, installation of burglary-proof on doors and windows, educating users on the consequences of theft and mutilation, and the implementation of electronic alarm systems on books.

Echezona, Ugwu, and Ozioko (2010) propose strategies like regularly backing up library websites, staff training, and raising awareness of the need to protect documents to control disasters in university libraries in Nigeria. Davou (2014) emphasizes adequate security measures, proper library orientation, regular cleaning, and fumigation as strategies to enhance disaster control practices and prevent possible occurrences in university libraries. Bansal (2015) recommends effective disaster preparedness policies, periodic full-scale mock drills, insurance coverage for library buildings and equipment, proper drainage and flood-proofing, regular checks on water leakages, and maintenance of buildings and properties as crucial strategies for managing disasters in libraries.

## Methodology

The survey research design was used for this study. The population for this study is 345 Professional and Para-professional library staff in 6 federal university libraries in North East, Nigeria. There was no sampling due to the manageable size of the population and therefore, all the 345 was used as the sample size of the population of this study. The researcher employed questionnaire as the research instrument for collecting data for this study. The data collected was analysed using descriptive statistics such as frequency, mean and standard deviation to answer research questions. Statistical Package for Social Science version 21 was used for the analyses. The null hypotheses were tested using t-test statistic at 0.05 level of significance. For test of hypotheses, if the probability value (p-value) is less than 0.05, the null hypothesis will be rejected but if it is greater than 0.05, the null hypothesis will not be rejected.

## Results and Discussion of findings

This section reports the findings on disaster control practices among library staff for effective information resources preservation in federal university libraries in North East, Nigeria.

**Research Question 1:** What are the disaster control practices used in libraries of the Federal Universities in North East, Nigeria?

**Table 1: Mean Responses of Respondent on Disaster Control Practices used in Federal Universities in North East, Nigeria**

| | | Staff status | | | | Overall | | R | D |
|---|---|---|---|---|---|---|---|---|---|
| | | P | | PP | | | | | |
| | | Mean | SD | Mean | SD | Mean | SD | | |
| 1 | Development of disaster control plan | 3.10 | .98 | 3.17 | 1.07 | 3.13 | 1.02 | 5th | A |
| 2 | Vulnerability analysis | 2.86 | .89 | 3.06 | .89 | 2.95 | .90 | 11th | A |
| 3 | Backing up library websites regularly | 2.94 | 1.04 | 3.13 | 1.05 | 3.03 | 1.04 | 8th | A |
| 4 | Regular Staff training on disaster preparedness. | 2.85 | 1.17 | 2.94 | 1.10 | 2.89 | 1.14 | 13th | A |
| 5 | Raising awareness of the need to | 3.14 | .83 | 3.13 | .69 | 3.13 | .77 | 5th | A |

protect document from disaster

| # | Item | P X̄ | P SD | PP X̄ | PP SD | X̄ | SD | Rank | Dec |
|---|------|------|------|-------|-------|------|------|------|-----|
| 6 | Proper orientation to library users on disaster control practices. | 2.91 | .99 | 2.93 | .99 | 2.92 | .99 | 12th | A |
| 7 | Regular cleaning of the library | 3.55 | .64 | 3.51 | .63 | 3.53 | .63 | 1st | A |
| 8 | Regular fumigation of the library | 2.62 | 1.08 | 2.45 | 1.00 | 2.54 | 1.05 | 16th | A |
| 9 | Following an effective disaster control plan | 3.14 | .97 | 3.07 | .97 | 3.11 | .97 | 7th | A |
| 10 | Training staff members in handling of equipment in case of emergency | 3.30 | 1.01 | 3.48 | .79 | 3.38 | .92 | 3rd | A |
| 11 | Fit electrical installations in a safe mode | 2.54 | 1.22 | 2.51 | 1.18 | 2.53 | 1.20 | 17th | A |
| 12 | Installing single switch control | 2.97 | 1.06 | 2.71 | 1.07 | 2.85 | 1.07 | 14th | A |
| 13 | Taking Preventive measures by libraries | 2.70 | 1.05 | 2.68 | .95 | 2.69 | 1.00 | 15th | A |
| 14 | Establishing control measures by libraries | 3.57 | .62 | 3.45 | .70 | 3.51 | .66 | 2nd | A |
| 15 | Taking response measures when disaster strike | 3.34 | .95 | 3.23 | .98 | 3.29 | .96 | 4th | A |
| 16 | Developing recovery plan after disaster occurrence | 3.04 | 1.12 | 2.90 | 1.01 | 2.98 | 1.07 | 10th | A |
| 17 | Risk assessment | 2.93 | 1.11 | 3.12 | 1.02 | 3.02 | 1.07 | 9th | A |
| | Cluster Mean | 3.03 | .51 | 3.02 | .75 | 3.03 | .97 | | A |

***Keys: P= Professional; PP= Paraprofessional; A = Agree; D = Disagree***

Table 1 above indicated the mean responses on disaster control practices in libraries of federal universities in North East, Nigeria. Using the criterion mean of 2.50, indicated that the disaster control practices used in libraries includes Regular cleaning of the library ($\bar{X}$=3.53, SD=.63); Establishing control measures by libraries ($\bar{X}$=3.51, SD=.66);Training staff members in handling of equipment in case of emergency ($\bar{X}$=3.38, SD=.92); Taking response measures when disaster strike ($\bar{X}$=3.29,SD=.96); Development of disaster control plan ($\bar{X}$=3.13, SD=1.02); Raising awareness on the need to protect document from disaster($\bar{X}$=3.13, SD=1.02) and ensuring an effective disaster control plan ($\bar{X}$=3.11, SD=.97) as well as Backing up library websites regularly ($\bar{X}$=3.03,SD=1.04), among others.

**Ho1:** There is no significant difference in the mean ratings of Professional and Paraprofessional staff on disaster control practices used in libraries of Federal Universities in North East, Nigeria

**Table 2: t-test analysis of Mean score of Professional and Para-professional staff on disaster control practices used in Federal University Libraries**

| Workers status | N | $\overline{X}$ | SD | Df | T | Sign | Decision |
|---|---|---|---|---|---|---|---|
| Professional staff | 116 | 3.03 | .51 | | | | |
| | | | | 215 | -.255 | .799 | NS |
| Para-professional staff | 101 | 3.02 | .75 | | | | |

The t-test analysis presented in Table 2 shows that t (-.255) is not significant at .799. Since the significant level is greater than 0.05 level of significance set for testing the hypotheses. Hypothesis three as stated above is therefore, accepted.

**Research Question 2:** What are the mitigation measures employed to prevent disaster occurrence in Federal University libraries in North East, Nigeria?

**Table 3: Mean Responses of Respondent on Mitigation Measures Employed to Prevent Disaster Occurrences in Federal University Libraries in North East, Nigeria**

| | | Staff status | | | | Overall | | R | D |
|---|---|---|---|---|---|---|---|---|---|
| | | P | | PP | | | | | |
| | | Mean | SD | Mean | SD | Mean | SD | | |
| 1 | Setting up a disaster response team | 2.19 | 1.12 | 2.51 | 1.03 | 2.34 | 1.09 | 18th | LE |
| 2 | Establishing a disaster communication network | 3.00 | 1.02 | 3.15 | .98 | 3.07 | 1.00 | 7th | E |
| 3 | Repairs of leaking roof | 3.37 | .89 | 3.33 | .97 | 3.35 | .93 | 3rd | E |
| 4 | Upgrading of library system | 3.15 | .98 | 2.83 | 1.23 | 3.00 | 1.11 | 10th | E |
| 5 | Provision of freezing facilities | 3.09 | 1.00 | 3.25 | .85 | 3.17 | .93 | 6th | E |
| 6 | Carrying out disaster drills | 3.00 | 1.09 | 2.81 | 1.13 | 2.91 | 1.11 | 13th | E |
| 7 | Carrying out disaster simulation | 2.47 | 1.24 | 2.61 | 1.24 | 2.54 | 1.24 | 17th | E |
| 8 | Provision of sand buckets | 3.23 | .87 | 3.15 | .83 | 3.19 | .85 | 5th | E |
| 9 | Reinforcing building security | 2.92 | .95 | 2.91 | .91 | 2.92 | .93 | 12th | E |
| 10 | Data backup of information resources | 3.06 | .95 | 3.05 | 1.03 | 3.06 | .99 | 8th | E |
| 11 | Fumigation | 3.44 | .90 | 3.57 | .73 | 3.51 | .82 | 2nd | HE |
| 12 | Cleaning of the library regularly | 3.53 | .81 | 3.64 | .63 | 3.59 | .73 | 1st | HE |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 13 | Creating an evacuation plan | 3.09 | .97 | 2.93 | 1.06 | 3.01 | 1.02 | 9th | E |
| 14 | Drawing up a disaster management plan | 3.49 | .73 | 3.05 | .83 | 3.29 | .81 | 4th | E |
| 15 | Ensuring access to financial resources | 3.00 | .75 | 2.97 | .71 | 2.99 | .73 | 11th | E |
| 16 | Budgetary allocation | 2.97 | 1.08 | 2.73 | 1.08 | 2.86 | 1.08 | 16th | E |
| 17 | Embankment/channelization to prevent flooding. | 2.96 | 1.09 | 2.81 | 1.08 | 2.89 | 1.09 | 14th | E |
| 18 | Provision of fire fighting vehicles, Ambulances, recovery vehicles. | 2.37 | 1.44 | 2.18 | 1.13 | 2.28 | 1.31 | 19th | LE |
| 19 | Removal of inflammable materials around the library buildings. | 2.97 | 1.03 | 2.78 | 1.15 | 2.88 | 1.09 | 15th | E |
| | Cluster Mean | 3.02 | .60 | 2.95 | .58 | 2.99 | .99 | | E |

**Keys: P= Professional; PP= Paraprofessional; HE=Highly Employed; E=Employed;LE= Less Employed; NE=Not Employed**

Table 3 above indicated responses from the respondents on mitigation measures employed to prevent disaster occurrences in federal university libraries in North East Nigeria, using the principle of real limit of numbers, indicated that Cleaning of the library regularly ($\overline{X}$=3.59, SD=.73) and Fumigation ($\overline{X}$=3.51,SD=.82) are highly employed. Other measures employed includes Repairs of leaking roof ($\overline{X}$=3.35, SD=.93); Drawing up a disaster management plan ($\overline{X}$=3.29, SD=.81); Provision of sand buckets ($\overline{X}$=3.19, SD=.85); Provision of freezing facilities ($\overline{X}$=3.17, SD=.93); Establishing a disaster communication network ($\overline{X}$=3.07, SD=1.00) and Data backup of information resources ($\overline{X}$=3.06, SD=.75) among others.

**Ho2:** There is no significant difference in the mean ratings of Professional and Paraprofessional staff on the mitigation measures taken to prevent disaster occurrences in Federal University libraries in North East, Nigeria

**Table 4: t-test analysis of Mean score of professional and Para-professional staff on the mitigation measures taken to prevent disaster occurrences in Federal University libraries in North East, Nigeria**

| Workers status | N | $\overline{X}$ | SD | Df | T | Sign | Decision |
|---|---|---|---|---|---|---|---|
| Professional staff | 116 | 3.02 | .60 | | | | |
| | | | | 215 | 1.612 | .108 | NS |

| | | Para-professional staff | 101 | 2.95 | .58 | | | | | |

Para-professional staff    101    2.95    .58

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The t-test analysis presented in table 4 shows that t (1.612) is not significant at .108. Since the significant level is greater than 0.05 level of significance set for testing the hypotheses. Therefore, hypothesis two as stated is accepted.

**Research Question 3:** What are the challenges associated with disaster control practices in Federal Universities in North East, Nigeria?

**Table 5: Challenges associated with disaster control practices in Federal Universities libraries in North East, Nigeria**

| | | Staff status | | | | Overall | | R | D |
|---|---|---|---|---|---|---|---|---|---|
| | | P | | PP | | | | | |
| | | Mean | SD | Mean | SD | Mean | SD | | |
| 1 | Negligence | 3.21 | .91 | 3.13 | 1.01 | 3.17 | .95 | 2nd | A |
| 2 | Inappropriate design | 3.08 | 1.09 | 3.07 | .95 | 3.07 | 1.02 | 4th | A |
| 3 | Inadequate support facilities | 3.07 | 1.06 | 3.10 | .96 | 3.08 | 1.01 | 3rd | A |
| 4 | Financial constraints | 2.97 | 1.05 | 2.79 | 1.04 | 2.88 | 1.05 | 8th | A |
| 5 | Inadequate Policy framework | 3.01 | .82 | 2.93 | .80 | 2.97 | .81 | 5th | A |
| 6 | Limited insurance cover. | 2.92 | 1.01 | 2.89 | 1.04 | 2.91 | 1.02 | 7th | A |
| 7 | Inefficient communication channels | 2.72 | 1.04 | 2.91 | 1.09 | 2.81 | 1.07 | 10th | A |
| 8 | Unreliable power supply | 2.97 | 1.09 | 2.97 | 1.05 | 2.97 | 1.07 | 5th | A |
| 9 | Poor urban planning | 2.38 | 1.00 | 2.72 | 1.00 | 2.54 | 1.01 | 12th | A |
| 10 | Weak co-operative efforts | 3.29 | .87 | 3.20 | 1.03 | 3.25 | .95 | 1st | A |
| 11 | Inadequate support services | 2.84 | .89 | 2.84 | .89 | 2.84 | .89 | 9th | A |
| 12 | Inappropriate use of buildings | 2.76 | 1.21 | 2.50 | 1.11 | 2.64 | 1.17 | 11th | A |
| | Cluster mean | 2.93 | .41 | 2.92 | .49 | 2.93 | .60 | | |

*Keys: P= Professional; PP= Paraprofessional; A=Agree;D = Disagree*

The respondents were asked to indicate the challenges associated with disaster control practices in libraries of Federal Universities in North East, Nigeria. Using the criterion mean of 2.50, table

5 above indicated that the challenges includes, Weak co-operative efforts ($\bar{X}$=3.25, SD=.95); Negligence ($\bar{X}$=3.17, SD=.95); Inadequate support facilities ($\bar{X}$=3.08, SD=1.01); Inappropriate design ($\bar{X}$=3.07, SD=1.02); Inadequate Policy framework ($\bar{X}$=2.97, SD=.81); Unreliable power supply ($\bar{X}$=2.97, SD=1.07); Limited insurance cover ($\bar{X}$=2.91, SD=1.02); Financial constraints among others.

**Table 6: Strategies for facilitating disaster control practices for effective information resources preservation in federal universities in North East, Nigeria**

| | | Staff status | | | | Overall | | R | D |
|---|---|---|---|---|---|---|---|---|---|
| | | P | | PP | | | | | |
| | | Mean | SD | Mean | SD | Mean | SD | | |
| 1 | Security patrol round the library premises | 3.67 | .62 | 3.37 | .73 | 3.53 | .69 | 3rd | VA |
| 2 | Security checks at the library entrance/exit | 3.53 | .64 | 3.56 | .54 | 3.55 | .59 | 2nd | VA |
| 3 | Disallowing bags into the library | 3.17 | .84 | 3.35 | .87 | 3.25 | .85 | 4th | A |
| 4 | Maintaining vigilance on the in-house use of materials to detect mutilated books | 3.17 | .85 | 3.09 | .97 | 3.13 | .91 | 6th | A |
| 5 | Provision of single exit | 2.86 | 1.05 | 2.90 | 1.06 | 2.88 | 1.06 | 10th | A |
| 6 | Provision of emergency exit | 2.96 | 1.05 | 2.98 | 1.01 | 2.97 | 1.03 | 8th | A |
| 7 | Ensuring standard electrical work in the building | 2.53 | 1.11 | 2.63 | 1.10 | 2.58 | 1.10 | 12th | A |
| 8 | Ensuring good drainage facilities and good plumbing work in the library building | 2.59 | 1.04 | 2.66 | 1.00 | 2.63 | 1.02 | 11th | A |
| 9 | Conducting regular surveys in and outside the building to identify defects | 3.05 | 1.07 | 2.85 | 1.19 | 2.96 | 1.13 | 9th | A |
| 10 | Installing lightning devices on the library building | 2.43 | 1.10 | 2.70 | 1.07 | 2.56 | 1.09 | 13th | A |
| 11 | Regular house keeping | 3.60 | .73 | 3.53 | .81 | 3.57 | .77 | 1st | VA |
| 12 | Micro filming of library materials | 3.24 | .86 | 3.09 | .98 | 3.17 | .92 | 5th | A |
| 13 | Provision of fire alarm systems | 2.88 | 1.09 | 3.15 | 1.07 | 3.00 | 1.09 | 7th | A |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Cluster mean | | 3.05 | .50 | 3.07 | .49 | 3.06 | .94 | A |

**Keys: P= Professional; PP= Paraprofessional; VA=Very Appropriate; A=Appropriate; LA=Less Appropriate; NA=Not Appropriate**

The respondents were asked to indicate strategies for facilitating disaster control for enhanced information resources preservation in libraries of federal universities in North East, Nigeria. Using the principle of real limit of numbers, responses as presented on Table 6 indicated that it is very appropriate for regular housekeeping ($\bar{X}$=3.57, SD=.77); security checks at the library entrance/exit ($\bar{X}$=3.5 5, SD=.59) and E-journals ($\bar{X}$=3.53, SD=.69). Other strategies include disallowing bags into the library ($\bar{X}$=3.28, SD=.85) ; Micro filming of library materials ($\bar{X}$=3.17, SD=.92); maintaining vigilance on the in-house use of materials to detect mutilated books($\bar{X}$=3.13, SD=.91); provision of fire alarm systems ($\bar{X}$=3.00, SD=1.09) ;provision of emergency exit ($\bar{X}$=2.97, SD=1.03); conducting regular surveys in and outside the building to identify defects ($\bar{X}$=2.96, SD=1.13); provision of single exit ($\bar{X}$=2.88, SD=1.06) ; ensuring good drainage facilities and good plumbing work in the library building ($\bar{X}$=2.963, SD=1.02).

**Discussion of Findings**

Findings of the study highlighted disaster control practices in federal university libraries in North East, Nigeria. Among the practices highlighted include: adequate planning, risk assessment, staff training,regular fumigation of library and financial preparations for successful implementation. Supporting this statement, by Uwakwe (2019) opined that disaster control practices in some libraries are lacking effective implementation and monitoring. In some library boards, as pointed out by Oluwatola, Ogbuiyi and Oriogu (2015) that most of the libraries boards had put in place adequate measures to curtail disaster occurrences, therein majority of the staff were fully aware of the disaster control measures and have knowledge on how to use the available disaster control equipment. But in some libraries findings revealed that  there was no disaster control plan available in their university library (Ijiekhuamhen, Omosekejimi and Rhima; 2020). They pointed out that only few facilities are been provided as disaster control practices.

Responses from the findings also indicated some practices that regular cleaning and fumigation as measures that are highly employed. Ijiekhuamhen, Omosekejimi and Rhima (2020) identified few facilities libraries should provide for disaster mitigation such as fire extinguishers, air fresheners, anti-virus, thunder arrestors and sand filled buckets. However, most libraries have not establish measures for mitigation of disaster like repairing leaking roofs, creating a disaster management plan, and offering freezing facilities.

Findings further highlighted some challenges such as inadequate policy frameworks, limited insurance coverage, inefficient communication channels, unreliable power supply, poor urban planning, weak cooperative efforts, inadequate support services, and inappropriate building use as challenges to disaster control. Bernadin  (2019) pointed out that some of the challenges are related to inadequate measures in place to implement planning and prevention of disasters. However, Patrick and Lindiwe (2013) stressed absence of  the following facilities in university

libraries like; Fire extinguishers, fire suppression system, fire detection system and security cameras.

Also, some disaster control practices which include conducting security patrols around the library premises, implementing security checks at entrances/exits, restricting bags from entering the library, ensuring vigilance on in-house material use to detect mutilated books, providing single and emergency exits, ensuring standard electrical and plumbing work, and maintaining a good drainage system in library buildings were identified by Ahenkorah-Marfo and Borteye (2010). They stated that there was no disaster control plan available in their university library. However, they pointed out that disasters can be well controlled if members of staff are trained and equipped adequately with the basics of what to do to prevent phenomena and what not to do when there is occurrence.

Furthermore, Echezona, Ugwu and Ozioko (2010) proffer some strategies which include; backing up library websites regularly, organizing staff training and raising awareness of the need to protect document from damage or loss. In the same vein, Davou (2014) stressed that adequate security measures; proper library orientation; regular cleaning of the library and regular fumigation of the library are good strategies which will enhance disaster control practices and as well prevent possible occurrence in university libraries.

## Conclusion and Recommendation

This research delved into the disaster control practices implemented by library staff to enhance the preservation of information resources in libraries of federal universities in North East, Nigeria. Employing a descriptive survey research design, the study formulated six research questions and tested five null hypotheses. The study encompassed 345 professional and para-professional library staff across six federal university libraries in North East, Nigeria, with no sampling conducted due to the manageable size of the population. Data collection instrument was questionnaire and four hypotheses tested at a 0.05 level of significance using T-tests.

The key findings indicated the existence of disaster control practices in libraries of federal universities in North East, Nigeria. However, certain identified disasters were highly prevalent in libraries. The study also highlighted challenges associated with disaster control practices in this context. Respondents proposed various strategies to enhance disaster control and information resource preservation in federal university libraries in North East, Nigeria.

In conclusion, it is recommended that federal university library management should provide adequate facilities for disaster control practices to protect information resources from damage or loss. Adequate measures should be implemented to mitigate recurrence of highly prevalent disasters in libraries. Furthermore, library management should initiate comprehensive awareness programs concerning disaster control measures that are underutilized.

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