



Disaster planning in the libraries of Central Universities at India: An analysis

Shraddha Shahane

Govt Arts and Commerce College, Mohna Distt-Gwalior, MP, India
shraddhashahane25@gmail.com

Available online at: www.isca.in, www.isca.me

Received 25th December 2021, revised 3rd May 2022, accepted 19th June 2022

Abstract

This paper analyses the situation of disaster planning in the libraries of Central universities at India. This paper also describes the different types of disasters. Knowledge of various measuring points are mentioned here which are adopted by the libraries of Central universities. This study also shows the actual position of the preparation and handling capacity of the libraries of Central universities at India on disaster conditions.

Keywords: Disaster, preventive measures, disaster plan, disaster team, disaster training, standards.

Introduction

Due to global warming and destructive activities of humankind, various types of disasters have occurred in the whole world. In the last few decades, the frequencies of disasters are increasing continuously. The results of the disasters, various parts of society are suffered for a long time. Then in this situation, various libraries are also suffered. Libraries maintain the information materials as a custodian. Destruction or damage of libraries means the loss of nation in the perspective of economic, cultural and educational level. Today traditional libraries are converting into the digital library but the digital library is also suffered from a disaster situation. Due to facing disaster situation, lots of precious and valuable information material, staff, library building and other infrastructure are to be damaged. Therefore Libraries need safeguard and preservation activity and the responsibility of the librarian is also to be increased.

Disaster planning is a co-operative activity. To facing disaster situations, planning is a very important factor in the perspective of the library. No disaster management policies are available in various libraries. In this situation, no clear guidelines are followed when a disaster occurs.

Disaster: Meaning: A disaster is an unexpected event or unpredictable incident which disrupts normal activities of the library. It is an occurrence arising without warning. It happened at any time and its result is in the form of serious destruction. Destruction can find in the form of damage of library building, loss of library resources and equipment, loss of human and interruption in library services. Eden and Mathew¹ “describe the disaster as an incident which threatens human life / or / and damages or threaten to damage a library building, collections, equipment and systems”. In the Chambers twentieth-century dictionary, explains the disaster as “an adverse or unfortunate

event, a great and sudden misfortune, calamity”. In Indian perspective, according to The Disaster Management Act² disaster means “a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made cause, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area³”.

Disaster is an unscheduled phenomenon which disturbs the normal library services of affected libraries. Generally, it occurs suddenly at a certain place and its effect is experienced over a long period. Lots of effort takes by the librarian to overcome the effect of the disaster.

Disaster: Types: Disaster can be happened due to the climatic phenomena or man-made error.

Natural Disaster: Libraries are facing natural disaster in the form of rain, flood and cyclone, earthquakes, volcanic eruptions, cold and heat wave, thunderstorms, tsunamis, avalanches, landslides, cloud bursts, dust storms, wildfires and much more. A natural disaster cannot be prevented but its damages can be reduced after adopting measures.

Earthquake means shaking the earth in a few seconds or few minutes and destructs the whole system of the earth. The effect of an earthquake is found in form of cracks in building, the collapse of shelves, fall the books on the floor and system failure etc. Due to the earthquake, library services are disturbed until long term and extra efforts of library staff are needed to restart the services.

When an earthquake comes in the ocean and its high waves destroy the cities situated at seashore then it is called Tsunami.

Cyclone / Typhoon or Tornado or dust or cold storm is a system of wind in which winds rotate clockwise or anticlockwise around the area of low atmospheric pressure.

Similarly, the flood is an overflow of water beyond the normal limit and affected the land. Cloud burst is also a sudden event of rainfall and its result in the form of a flood. Basically, these are the water-related disasters for the libraries. The effects of these disasters are found in the form of either wet material or flow of materials. Wet materials are also faced with the problem of mould formation.

The landslide comes in the area of the mountain when collapsing the part of the rock. Similarly, when snowfalls and rock down in the area of the mountainside is in large quantity then it is called avalanches.

Wildfire is a type of uncontrolled fire which spreads and destroys the large area.

Man-Made Disaster: Man-made disasters arise due to human error or negligence of staff and others. If the level of negligence is identified at an early stage then man-made disaster can be prevented. Libraries are also damaging through the activities of humankind which are found in the form of war and terrorism, fires, water leakage, building deficiencies, biological damages, micro-organisms, insects or bug infestation, system failure, collapse of shelving, indoor structural accident, vandalism and arson, theft and burglary, electric short circuits, riots, social and political unrest etc.

War means the armed fight between different countries or groups which affect all livings and humanity while terrorism is unlawful violence against the civilians and system. Due to war and terrorism, several libraries of the world have been destructed because these are a very easy target for the attackers to show their strength.

When fire set in the property deliberately then it is called arson. It is a criminal act. Books and audiovisual materials are sensitive elements for burning. Due to fire, it is easily converted into ash and no one can repair. Several times fire starts due to electric fault or short circuit and converts the library property into ash. Similarly, vandalism is a deliberate act of destruction and damage to public and private property. In other words, vandalism is an intentional act of destruction. Magazines, cookbook and children books are easily affected materials due to vandalism. Mostly libraries face the problem of mutilation of pages of reading materials. While theft means the action of stealing.

Water leakage is possible due to roof leakage, drainage pipes, tab leakage, ac leakage etc. It is happened suddenly and damaged the library materials.

Biological disaster is happened due to the attack of different types of insects and living organism such as rat and mice, birds,

bacteria cockroaches, silverfish, termites etc. These living insects ate the materials and destroyed. Similarly, Chemical disaster is happened due to the chemical reaction of substances, or components or natural. Accident and system failure comes in the form of damage of building, failure of electricity and computer system, the collapse of shelving etc.

Meaning of disaster planning: Disaster planning is a part of the preservation programme of libraries and archives. Basic security of library material, staff and other infrastructure are so much important for the future generation because libraries are the protector of knowledge. Disaster planning includes all activities of the disaster situation. It is also known as disaster management. The necessity of disaster planning is on the time off during and after the disaster. Disaster planning included those management issues which are very important for salvaging the library materials, services, infrastructure and human lives from any disaster incidents. Disaster planning system includes four phases which are known as prevention, preparedness, reaction and recovery. i. Prevention: In this phase, risk factors of disasters are identified. This step is mainly related to precautions to be followed before the disasters occur. Damages can be minimal if the libraries have adopted a preventive measure to deal with disaster situations. ii. Preparedness: In this phase, documentation work of these activities is prepared which is very useful during the disaster occurrence. These measures are prepared on the basis of the anticipation of a disaster happening. iii. Reaction/Response: In this phase, the rescue of human lives should be the main priority of the disaster team. This is the time when emergency services and procedures should be followed to salvage the human lives and valuable property. iv. Recovery: Recovery is a lengthy process that is done for a decade or more to achieve pre-level. This phase provides the various experiences which are useful to change the previously adopting measures in prevention and preparedness phase. Recovery activities continue until normal life is not achieved.

Review of Literature: Various literature describes about the different ways of disasters, preparation activities of libraries and their salvage techniques. Few reviews of previous literatures are given here:

Kaur⁴ studied on the condition of disaster plan in university library at indian perspective. The area of the study was around two universities i.e. Thapar university patiala and Punjabi university Patiala. She described that both universities were suffered from some disasters in last few years. Lots of material were destroyed in this situation. She studied that No disaster plan have at any university. Both university's librarian were not more awared regarding preparation of disaster plan and they have kept very casual attitude in this regard. No staff training and mock drill programmes were conducted by both universities. But at present both university libraries were equipped with fume detector, fire extinguishers and CCTV. Thapar University insured their collection but Punjabi university were not awaked for it.

Biswas & Choudhuri⁵ explained meaning of disaster with support of different sources. Unpredictability, unfamiliarity, speed, urgency, uncertainty, threat are general feature of any disaster. They classified disaster into two categories – natural and human made. They also provide list of several national and international sources, Academic and Research Institutions, Governments and Intergovernmental Organizations, Non-Governmental Organizations, UN Agencies and International Organizations which are involving in disaster planning and rescue operations.

Rattan⁶ is described about the importance of library and information centers in managing a disaster or any emergency situations. There are mainly two types of disaster conditions i.e. man-made and natural disasters which are facing by library. Due to the era of www, internet and technological innovations, library is functioning 24x7 days. Now new technology is using for controlling disasters. One disaster control plan should be maintained for every library which is in written form. The control of the disaster goes through in three steps-before, during and after. Each plan should cover whole library including staff, readers, sources of information, equipment and infrastructure and it must be a team effort.

Abareh⁷ revealed disaster situations and its recovery in the perspective of Library environment. He describes different types of disasters which are commonly damaging library 'collections. He strengths on the disaster preparedness which is not taken seriously by libraries. No budget is sanctioned for this purpose. In the paper it is shown that No library is aware regarding advance planning of unexpected incidents. He strengths on maintenance of disaster kits for preparedness and training of staff regularly. He also suggests to cover with insurance policy for safety of library's collection, structure, equipment and employees.

Gupta⁸ wrote in the newspaper which described the damage of lots of library material due to human error in the National library of India Kolkata. Due to leakage of AC plant and broken window lots of water was entered in the Bhasa Bhavan Section where lots of precious and priceless periodicals and newspapers were kept. One day library staff opened the door of this section and found that 2000 sq feet space was inundated. In this section approximately 3 lakhs books were kept. Library staff used the emergency alarm system for salvage the inundated materials. All library staff was made a human for rescue of materials. These efforts were insufficient and approximately 60000 periodicals and newspaper had been destroyed. Responsibilities by the director and CPWD were not properly done.

The focus of the Present study: The focus of the research is limited up to the libraries situated at only 40 central universities of India. These universities are situated at different states of India which come in different disaster-affected areas. There is no accurate information found regarding disasters occurrence in these libraries to date. So this study focuses on the awareness

and experience of librarian/In-charge of the library about the disaster conditions. Every library should be adopted preventative measures to avoid disaster happenings. So this study focuses that what precautionary steps are adopted by these libraries to prevent the occurrence of a disaster. It also focuses on the actual position of a disaster plan which is a very necessary element of the disaster planning system. The study also focuses on the existing adopted policies regarding library insurance which is an important step in the recovery of materials. Mock drill and training programmes are necessary to train the persons for handling the disaster. The study wants to know the actual position of the efforts done by central university's libraries in this regard. Finance is an essential element for operating any system. The study focuses on the budget allotment and its expenditure of central university's libraries regarding handling the disaster.

Need of the Present Study: Disaster planning is an essential matter for libraries. The result of the study would helpful for the librarian to prepare and follow the policies and strategies regarding disaster planning system. The present study would assist the library staff to recover the library resources from any disaster occurrence. The result of the study would help to develop the safety infrastructure for disaster in the libraries situated at Central Universities.

Importance of the study: Any type of libraries is not free from the disaster situation. Library materials are either fully or partially lost due to facing both types of disaster conditions i.e. natural and man-made. Several times, library building and other infrastructure, humankind etc. are also affected. Disaster may occur anywhere and anytime. But our libraries attached with central universities situated at India are unaware to handle a disaster situation. There is no appropriate disaster controlling system available in these libraries. The utility of the study increases in the future perspective when libraries will aware of the factors of disasters. It is hoped that this study will change the mindset of Library administrators for the planning of disaster control system. They will prepare policies regarding disaster in their library.

Purpose of the Present study: i. To find out the adopting strategies of the libraries of central universities for disaster planning. ii. To find out the actual position of the disaster plan among central university's library of India. iii. To find out the status and availability of insurance policy of libraries situated at the central university of India for their resources. iv. To know the status of separate preservation section in the central university's library of India. v. To know the will power of librarian of the central university to prepare a cooperative plan between libraries.

Hypothesis: i. All the Central University's libraries of India have furnished with few types of equipment for the prevention of various types of the disaster situation. ii. All Central University's libraries have organised a mock drill programme

every year. iii. All the Central University's libraries of India have not a written disaster plan. iv. All the Central University's libraries of India have insured its collection.

Methodology

The result of the study is based on the investigation methods adopted by the researcher. It should be formed in a well-organized manner. To find the accurate result of this study, it is essential to take only central universities established in different states of India. These states come in different disaster zones. Researcher thought that when the number of units (i.e. population) in the research is little then the forthcoming results will accurate and useful for the future. So it is appropriate to study only libraries established in the central universities. Descriptive method is adopted by the researcher in this study. Both primary and secondary data are important for any research work. Survey method is the best option for collecting the primary data. Secondary data can be obtained from both published and unpublished documents. In this study, questionnaire is the main tool for data collection. Maximum questions were closed type in the questionnaire.

The questionnaire was designed online as well as pdf format and sent to the Librarian/In-charge of the Library through email.

Responses: Most of the Librarians were very supportive to provide the responses. A questionnaire prepared broadly and distributed to 40 libraries attached to central universities. Approximately 85% of responses were received.

Results and discussion

Library Collection and Library Staff: In any disaster incident, Library materials are easily damaged, and lots of efforts have done to salvage it. Nowadays Libraries collect and preserve the materials not only in print form but also in non-print form. Library employees are also valuable assets for libraries because the success of the libraries depends on their employees. Loss of the employees during the disaster affects the services of the library. Library staff divides into Professional, Semi-professionals and Non-professionals.

Table-1 present that University libraries expend lots of funds to maintain their collection. Only 3 University libraries out of 34 enrich with very much collection and keep National significance at University level (i.e. over 10 Lakhs reading material). Similarly, 3 other libraries also enrich with more than 5 Lakhs precious collections, and its possibility to reach up to 10 lakhs in future.

Table-2 presents that 14.70% Libraries (i.e.5) have employees more than 80. 58.82% of libraries (i.e.20) have the number of personnel up to 20. Only 23.52% libraries (i.e.8) have the number of employees more than 20 but less than 40. Only 2.94% of libraries have library staff among 40-60.

Table-1: Importance of libraries according to its collections.

Total collection: Ranges (Print and Non-Print)	No of libraries	Percentage of Libraries
Less than 100000	17	50
100000 – 500000	11	32
500000-1000000	3	9
More than 1000000	3	9
Total	34	100

Table-2: The total number of library staff.

Ranges for library employees including professional, semi-professional and Non-professionals	Total Number of Libraries	%
0-20	20	58.82
20-40	8	23.52
40-60	1	2.94
60-80	-	-
More than 80	5	14.70
Total	34	100

Disaster incidents: Figure-1 presents only 15% (i.e.5) Central University libraries have faced different disaster incidents whereas 85% (i.e.29) of Central University Libraries are not faced any disaster situation.

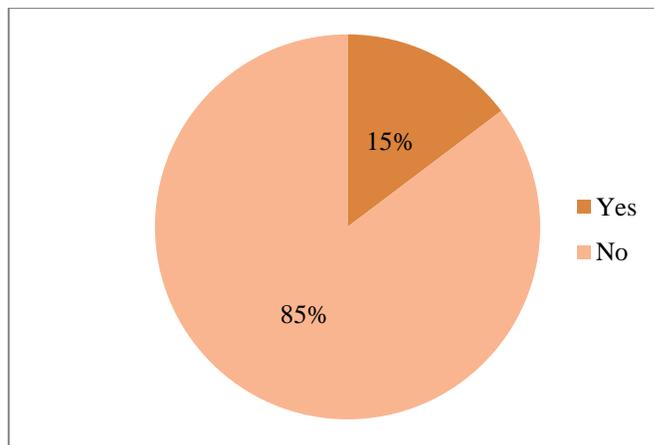


Figure-1: Affected University libraries from disaster incidents. Table-3 presents Only 5 University libraries experienced a disaster incident in which 60% of libraries faced a natural disaster and 20% of libraries faced man-made disaster. 20% of libraries affected due to facing both kinds of disasters.

Table-3: Types of disasters.

Types of disaster	Total number of affected libraries	Percentage
Natural	3	60
Man-made	1	20
Both types	1	20
Total	5	100

Different Risk factors of Disasters: Our country is a tropical country. Different types of disasters come in different parts of our country. The Central Universities established at different states of India. But this study revealed that only 5 Libraries experienced natural and man-made disasters. Table -4 represents that 20% affected libraries faced the disasters due to cyclone/ Typhoon, fire, chemical reasons. 60% of libraries affected due to biological causes. 40% of affected libraries suffered from the earthquake and theft. Here it is cleared that one library did not face any disaster but identified the risk factor in the form of

theft and termite problem. Similarly, one more Library namely also did not face any disaster but identified the risk factor in the form of Cyclone/Typhoon, Heavy Rain, fire and fungus.

Destroyed part of libraries and its collection during the experience of disaster incident: Every librarian should learn from the earlier experiences of the disaster incident. During previous years experiences few parts of libraries and its collections can destroy, and librarian can develop their handling capacity from these experiences as future. Table-5 reveals that 20% (i.e.1) of the affected library (Namely Manipuru-library) faced the 25% loss in the form of library collection and library whereas 80% of affected libraries were lucky because these were not faced any destruction.

About adopted preventive measures: Library premises: Various factors such as age, floors, location, waterproof and emergency gate etc. can also help to control the disaster. 18% of University libraries did not locate in the separate building. 79% Library building (i.e.27) constructed in multi-stories.

Table-4: Different Risk factors of Disasters which affected University Libraries.

Different types of Natural Disaster	Affected Libraries	%	Different types of Man-made Disaster	Affected Libraries	%
Flood	Nil	0	Terrorism	Nil	0
Cyclone/Typhoon	1	20	War/bomb-blast	Nil	0
Tsunami	Nil	0	Fire	1	20
Landslide	Nil	0	Vandalism	Nil	0
Cloud-burst	Nil	0	Theft	2	40
Heavy-rain	5	100	Arson	Nil	0
Avalanches	Nil	0	Chemical	1	20
Tornados	Nil	0	work violence	Nil	0
Earthquake	2	40	Biological	3	60

Table-5: Past experiences of the destruction of the library.

Destroyed part of Libraries	Affected Libraries	%	Destroyed part of library collection	Affected libraries	%
25%	1	20%	25%	1	20%
50%	Nil	-	50%	Nil	-
100%	Nil	-	100%	Nil	-
Not effected	4	80%	Not effected	4	80%
Total	5	100	Total	5	100

Basement situated in the libraries can become the reason for biological growth. 65% of libraries have not a basement. Library building can face the problem of water leakage at any time due to the heavy rain, broken drainage pipes, taps, extinguisher of fire by water and others. Therefore every part of the library must waterproof. 38% of libraries did not waterproof. Every library building should have the appropriate emergency gate for evacuation purpose. 18% of libraries have not maintained it.

The age factor of the library building can also invite the disaster incident. The heritage building needs appropriate maintenance otherwise; it faces the problem of falling off the ceiling, leakage from the roof and biological growth etc. 3 (9%) Library buildings have historical importance due to its age up to 100 years. Several times libraries face the biological and fire disaster arisen due to eating and smoking habits of library employees. 91% (31) of University libraries strictly prohibited the eating and smoking habits of library employees in their stack room, Various furnished equipment at the libraries needs regularly uninterrupted electric supply. Without power-supply library faces the problem to maintain the temperature and humidity level. 15% libraries (5 libraries) did not receive it uninterruptedly.

Furnished equipment: various kinds of equipment should furnish in the Library which can help to avoid the disaster incident. AC helps to avoid the brittle of paper, biological growth, acidity and yellowish the pages, fragile of bindings. Proper temperature and humidity in the library can maintain with furnishing the fully AC building. In this study, only 19 Libraries (56%) are fully air-conditioned, but 14 (41%) libraries have not furnished with it. One librarian (3%) did not provide their answer.

Nowadays Libraries are depending on the closed-circuit television (CCTV) for security checking. In CCTV, all activities of readers' record and library staff can monitor it from their seat. 30 libraries (88%) furnished with a CCTV camera whereas 4 libraries (12%) have not furnished it. Libraries can face sudden fire due to electric short circuit, arson, smoking of library staff and other reasons. 30 libraries (88%) furnished with the fire extinguishers whereas 4 libraries (12%) have not furnished it.

Few early warning systems should set up in the library to reduce the impact of hazards. Librarians should consult with experts before furnishing early warning systems. This study reveals that 15 libraries (44%) equipped with the fire alarm, whereas 19 libraries (56%) did not furnish with it. Smoke alarm system is also the early warning system. 12 libraries (35%) equipped with the smoke alarm system, whereas 22 libraries (65%) did not furnish with it. Similarly 21 libraries (62%) adopted lighting conductor as a protection device, whereas 11 libraries (32%) have not furnished with it. 2 Library administrators (6%) did not give their responses on this question. The earthquake warning

machine is also an early warning. Only 2 Libraries (6%) equipped with an earthquake warning machine. Similarly, only 8 Libraries (24%) equipped the water sensing alarm system in their libraries, whereas 25 Libraries (73%) did not furnish with it (Figure-2).

Preventive measures for termite treatment: Termite problems are very common in libraries. Only 44% of libraries faced the termite problem. To control the termite problem, every librarian should have aware of termite treatment. The treatment should do in a regular period according to condition. 15% of libraries decided the tenure of termite treatment fix at half-yearly basis, whereas 18% of libraries fixed it every year. 26% of libraries did not fix time, and not mention a specific time.

Cleaning Modes of Libraries: To avoid the biological and chemical disaster, the libraries must keep regularly neat and clean. The area of Libraries is in large. Therefore it is a tedious task for cleaning staff to do the dusting of every part of the library through manually. 24 University libraries do their work manually whereas 10 libraries use the vacuum cleaner for cleaning work.

Regular checking and maintenance of furnished equipment of the library: Libraries install different kinds of equipment as preventive measures for evading from disaster incident. These devices will be useful at the time of disaster only when libraries are regularly checked and well maintained it. 88% (30) of libraries properly maintained their equipment regularly. 15% libraries have done this work every month, whereas 18% libraries on every quarterly basis, 6% (2) libraries on Half-yearly basis and 20% (7) libraries on Yearly basis have done this work. 3% (1) library specified any time when required.

Insurance of Libraries: Insurance is a way to face disaster incidents, which reduces the uncertainty of financial losses happened due to disaster. The administration of the university library must always understand the importance of insurance in respect of security of the library. Library administrator should take expert advice before taking insurance. Table-6 presents only 29% university libraries (i.e.10) have insurance whereas 62% university libraries (i.e.21) have not taken any insurance policy till date. One library (3%) informed that at present insurance is not available but the process is under-progress. Only 2 Library administrators (6%) did not give their response. only 11 libraries protect their collection from insurance whereas 12 libraries also insured their building. Only 5 libraries protect their personnel and users under the insurance policy. 12 Library administrators did not give their responses to this question. The insurance claim will be active at the time of occurrence of a disaster only if the policy is regularly updated and renewed by the university every year. This study presents that only 11 libraries out of 34 libraries renew repeatedly their insurance policy, while 11 libraries do not take it seriously and not regularly renew.

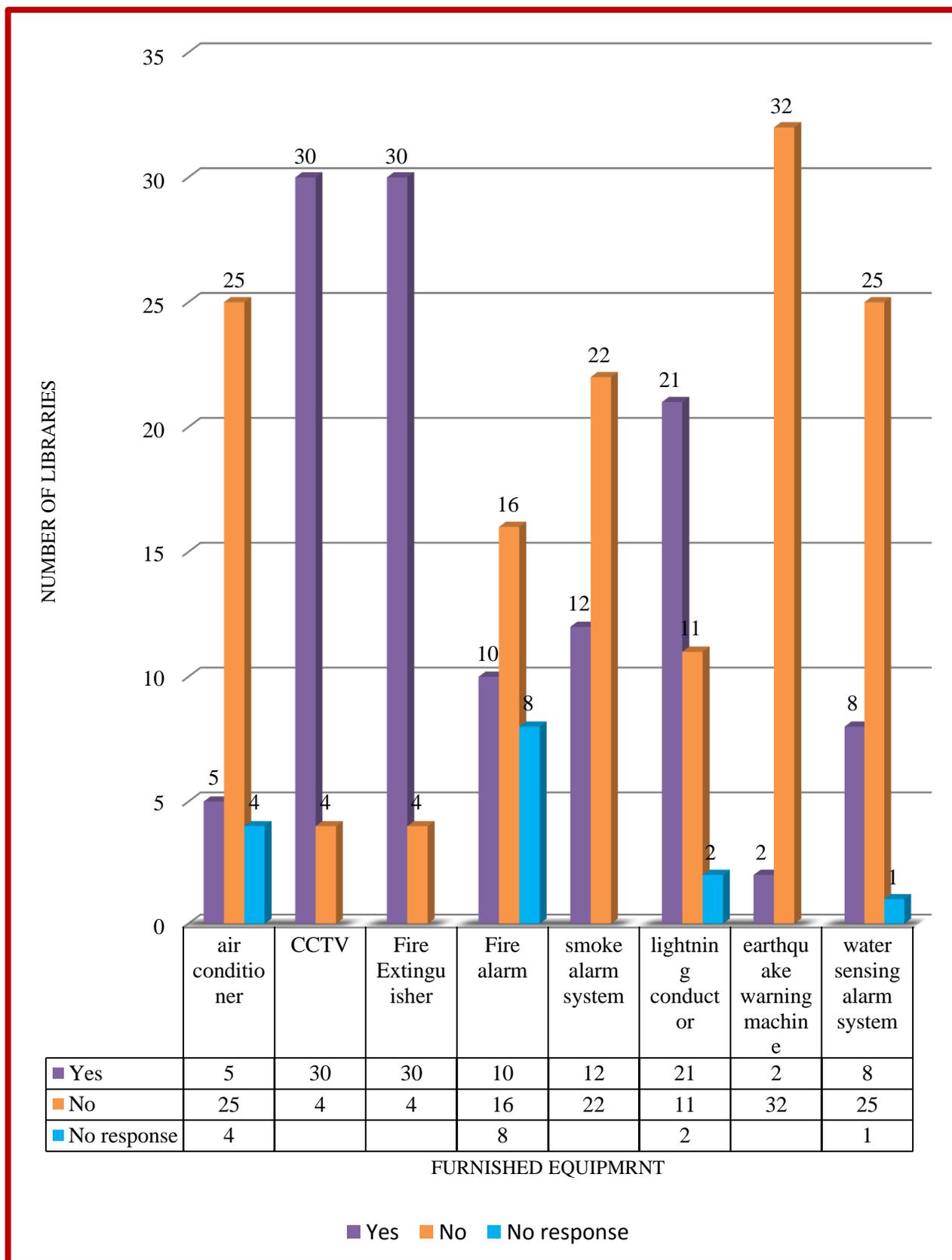


Figure-2: Libraries furnished with different types of equipment.

Table-6: Insured Libraries.

Insurance	Number of Libraries	Percentage
Yes	10	29
No	21	62
Under process	1	3
No response	2	6
Total	34	100

Disaster Plan and team: Dr Lyall¹⁰ described that a disaster plan is a document which specified the whole procedures of prevention and preparedness for disaster incidents. Every Library should prepare one disaster plan in advance before happening of any disaster incident. Figure -3 presents only 20% (i.e.7) of University Libraries have prepared their disaster plan in written form.

In this study, represents that only 24% Libraries prepared a disaster plan before the disaster incident. 15% of libraries prepared their disaster plan at the time of any disaster incident. Every Library should improve and revise their disaster plan regularly. 24% of libraries revised and updated their disaster plan regularly.

Various reasons are available regarding non-availability of the disaster plan. This study presents that 9 libraries stated that they have not prepared a disaster plan due to lack of awareness.

libraries mentioned that they have not prepared the disaster plan due to lack of expert staff. 16 libraries stated the reason of unavailability of the disaster plan was the lack of resources. 6 librarians did not give their responses to this query.

Similarly, each library should maintain a trained disaster team to deal with disaster situations. This study presents that trained disaster team maintained by 8 libraries. Every library should conduct training programmes for their staff. This study reveals that 14 libraries (41%) organised this type of training programmes. 19 libraries (56%) did not conduct it.1 Librarian (3%) did not provide their response. These training programmes organised monthly by 2 libraries whereas 5 libraries organised it every quarter. One library organised it on half-yearly basis.6 libraries organised it on yearly.

Emergency kit: Every library should quickly provide emergency kit to their disaster team at the time of the disaster incident. This study represents that 12 libraries provided emergency kit immediately to their disaster team at the time of the disaster, while 16 libraries did not implement it.

Information regarding standards/ guideline for disaster: In the Indian perspective, The National Disaster Management Authority contributes to the preparation of guidelines and standards for disaster from time to time. Every library should always follow these guidelines and standards for disaster handling. This study presents that 29% of libraries (i.e.10) follow these guidelines, whereas 47% of libraries (i.e.16) do not follow it. 24% of librarians (i.e.8) did not provide their responses.

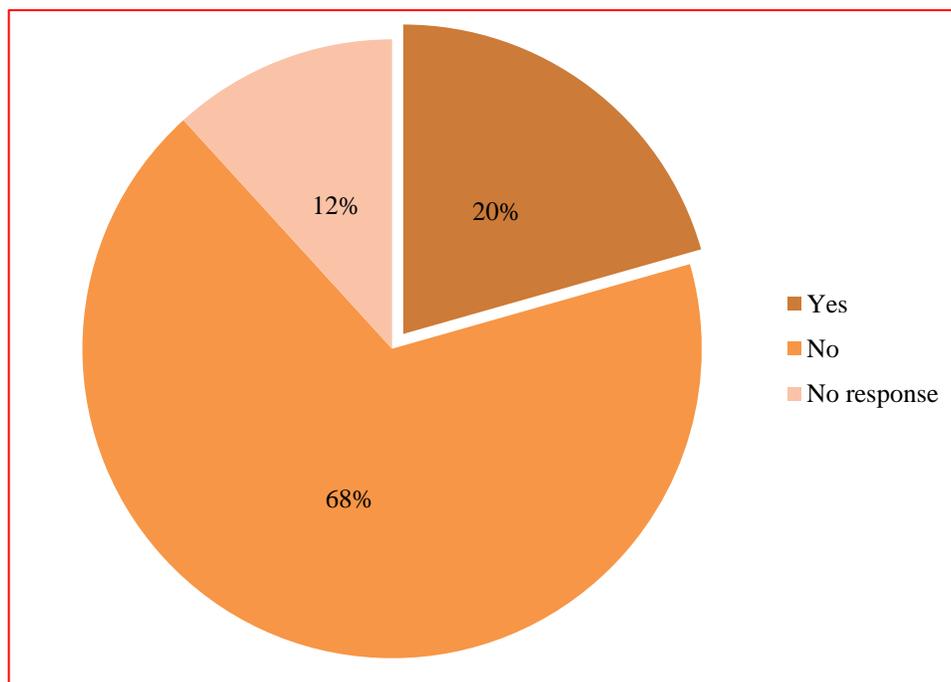


Figure-3: Existence of Written disaster plan in university Libraries.

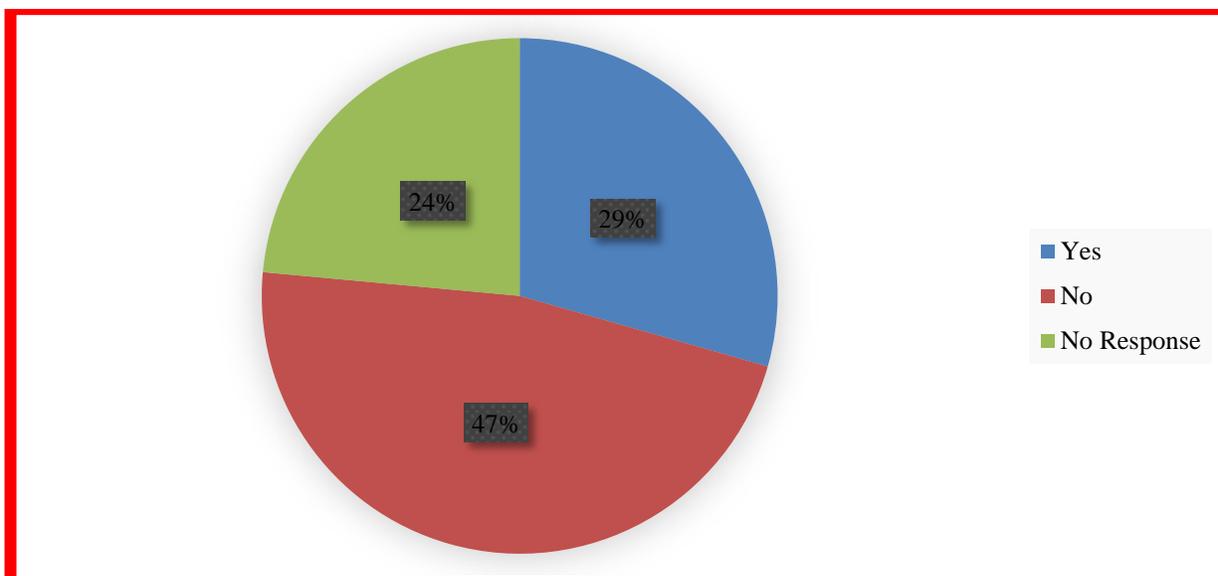


Figure-4: Libraries follow Guideline of National Disaster Management Authority.

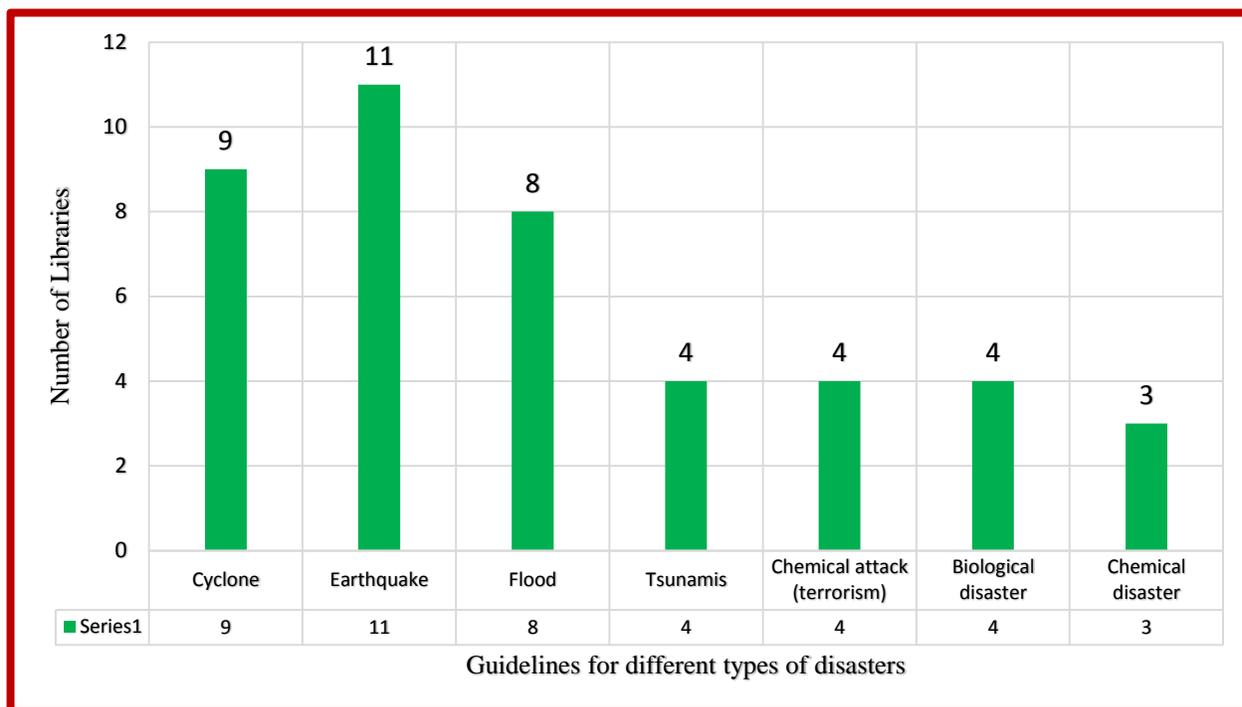


Figure-5: Guidelines for different types of disasters prepared by National Disaster Management Authority followed by Libraries.

The National Disaster Management Authority of India prepares guidelines for different types of disaster situation. 9 libraries follow cyclone-related guidelines, whereas 11 libraries follow earthquake-related guidelines. 8 libraries follow flood-related guidelines. 4-4 libraries follow guidelines relating to tsunamis, chemical attacks (terrorism), and biological disasters. 3 libraries follow chemical disaster-related guidelines.

Separate Preservation Section: Every library should establish a separate preservation section. It is so helpful to recover from a

disaster incident. This study presents that only 13 libraries (out of 34) have founded a separate preservation section, whereas 21 libraries have not established it. Every library should appoint conservation expert at their preservation section. This study represents that 35% of libraries (i.e.12) employed the conservation expert in their preservation section. The preservation section at every library should fully furnish with the necessary equipment. This study presents that 13 libraries (i.e.38%) fully furnished with the necessary equipment to its preservation section.

Conclusion

Proper planning and management should do to minimize the adverse impact of the disaster incident. The present study represents the actual position of disaster planning of libraries attached to the central universities situated in India. The library administration is responsible for ensuring the safety of the whole library system in any disaster situation. The efforts of library administration are helpful to prepare powerful libraries which can easily handle any disaster incident and restart their services at the earliest.

The awareness level of librarians found at low level on this matter. The Seriousness of the disaster incident depends on how tackles the disaster by the libraries. Factors of risks are always to activate, but their effect can find less after adopting various preventive measures. In the context of libraries, our reading materials and historical literature are less safe facing due to little and large risks. Present study is clearly showing that most of the University libraries did not fully furnish with essential equipment due to lack of awareness and fund.

Most librarians do not take efforts sincerely regarding disaster planning due to lack of awareness. All libraries attached with central Universities did not fully fit for handling disaster situation because they did not fully apply to all norms in their library. These libraries did not implement all strategies as per standards. Therefore all are in danger zone.

Further area of Research: In the Indian perspective, research on this issue is uncommon for different types of libraries. A similar study can possible in the area of various kinds of libraries such as special, school, college, public and national libraries. Further research is possible in the perspective of biological and chemical risk in the libraries and their adopting preventive measures for them. The influence of disaster finds as psychological, economic and physical losses. Further research is possible to know the psychological impact on the employees and users of the library at disaster happening.

References

1. Eden, P. & Matthews, G. (1996). Disaster management in libraries. *Library management*, 17(3), 5-12.
2. Nomani, M. Z. M., & Parveen, R. (2020). Covid-19 pandemic and application of disaster management act, 2005: Promises and pitfalls. *International Journal of Pharmaceutical Research*, 12(4), 3730-3734.
3. Govt of India (2018). National Disaster management Authority. <https://ndma.gov.in/en/disaster.html>. Retrieved Sept 24, 2018, from <https://ndma.gov.in/en/disaster.html>
4. Kaur, T. (2009). Disaster planning in university libraries in India: a neglected area. *New Library world*, 110(3/4), 175-187. doi:10.1108/03074800910941365
5. Biswas, B. C., & Choudhuri, S. K. (2012). Digital information resources for disaster management of libraries and information centres. *Bangladesh Journal of Library and Information Science*, 2(1), 12-21.
6. Rattan, P. (2013). Role of library and information centres in disaster management. *Library Philosophy and Practice (ejournal)*, 886, 1-11. Retrieved 05 21, 2017, from <http://digitalcommons.unl.edu/libphilprac/886>
7. Abareh, H. M. (2014). Survey of disaster preparedness by heads of academic libraries in North-Eastern Nigeria. *Global journal of academic librarianship*, 3(1), 45-57. from <http://www.ripublication.com>
8. Gupta, S. (2016). Leaking AC plant floods National Library. 60K periodicals ruined. KolKatta, India: <http://timesofindia.indiatimes.com>.
9. Buchanan, S. (1988). Disaster Planning, Preparedness and Recovery for Libraries and Archives: A RAMP Study with Guidelines. *Paris: General Information Programme and UNISIST*. Retrieved 05 21, 2017, from <http://unesdoc.unesco.org/images/0007/000798/079813eb.pdf>.
10. Lyall, J. (1995). Disaster planning for libraries and archives: Understanding the essential issues. National Library of Australia Staff Papers.
11. McIlwaine, J. (2006). IFLA disaster preparedness and planning -A Brief manual. Paris: IFLA-PAC (Preservation and Conservation).
12. Morgan, G., & Smith, J. G. (1997). Disaster management in libraries: the role of a disaster plan. *South African journal of library and information science*, 65, 62-71.
13. Barua, N. (2018). Disaster management in college libraries: a study in India. *International Journal of Innovative Knowledge Concepts*, 6(5), 43-46.
14. Kalyani, K., & Prabhakaran, A. (2014). Are we ready to face the disasters at libraries in india?. *The need for focusing disaster preparedness from disaster management. American research thoughts*, 241-250. Retrieved 10 10, 2017, from www.researchthoughts.us
15. Juryiah, M. K., & Norazlina, D. (2015). Disaster preparedness for academic libraries in Malaysia: an exploratory study. *International Journal of Social, Behavioral, Educational, Economic and Management Engineering*, 9(10), 2946-2952.
16. Zaveri, P. (2012). Disaster management in libraries in india. Ph.D. Thesis, S.N.D.T. women's University, S.H.P.T. school of library science, Mumbai.
17. Arora, J. (2009). Disaster planning, preparedness and recovery for libraries of National importance in Delhi. PhD Thesis, Jiwaji University, School of studies in library and information science, Gwalior.
18. Bansal, J. (2015). Disaster management in libraries: an overview. *Gyankosh*, 6(1), 9.

