

A Study on Disaster Management Initiatives and Planning in Academic Libraries of North East India with Special Reference to Assam: A Survey

Manoj Kumar Sinha Saroj Kumar Mandal

Abstract

The first part of the paper explores the conceptual framework of the various aspects of the disaster, natural calamities and its impact on libraries and discusses the probable steps in overcoming the impact of disasters on library resources. A well thought disaster management plan needs to be outlined and suitable strategies should be planned for affective implementation in protecting the academic libraries of this North Eastern Region in general and Assam in particular.

For the present study, the survey method of research has been adopted and data has been collected from the college and university librarians / LIS professionals using a self-designed questionnaire. The administration of questionnaire has also been ascertained by observation and conducting informal interview of few librarians / LIS professionals for their view and opinion towards awareness of various types of disasters and steps taken by them to overcome the problems for implementation of disaster management plan in academic libraries or libraries of higher educational institutions. For carrying out this study purposive sampling technique has been adopted. This study has been conducted for selected libraries and responses have been collected from March 2018 to July 2018. The data has been analysed and tabulated using MS-Excel and results were shown in tabular and graphical format. The study reveals that the awareness and preparedness to counter the problem of disasters arises out of sudden natural calamities is poor and there is need to sensitise common people and LIS professionals to make them aware with the probable disaster management techniques and measures to face the challenges and overcome the situation.

At the end the paper, the authors put forward several suggestions and recommendations for implementation of the precautionary measure to plan and implement Disaster Management Strategies / Plan to save the academic libraries/ learning resource centres/ public libraries from the menace and havoc of regular heavy rains, floods, earthquake, fire and terrorist attack etc on the basis of suggestions given by the respondents and from the authors side.

Keywords: Natural Disasters, Disaster Management Plans, Academic Libraries, North-East India, Assam

1. Introduction

Human civilisation has been facing the menace of natural disaster and natural calamities like floods, drought, storms, earthquakes which are the unexpected happening, causing huge losses of lives and properties. Along with other institutions and organisations, libraries and information centres are located in same locality and any natural calamities / disasters also affects the library buildings and library learning resources. Since the library and information centres are the treasure house of recorded knowledge and repositories of knowledge resources, the onus lies on us to protect our libraries and national heritage with rare manuscripts and documents with well planned strategies to overcome natural disasters / calamities or any other man-made unforeseen situation.

Keeping this view in our mind, this paper seeks to investigate the various types of disasters and natural calamities which may affect our library systems and making suitable disaster management plan for academic libraries in the light of natural hazards in entire North eastern States and particularly in Assam. The library authority should also evaluate the preparedness and think on various precautionary measures to be taken by library authorities and concerned officers to prevent themselves from the issues of risk and hazards which might threatens libraries and information centres and its resources & library services.

Since North East India in general and Assam in particular is multi-hazards prone states in terms of geographical area, terrain, heavy rainfall region and more earthquake prone zone, it has been fundamental truth that disasters has been with us for long as recorded history or even before. North Eastern part

of India mainly comprises of Assam and other seven states (including Sikkim) which is a gateway of Tripura, Mizoram, Manipur, Meghalaya, Nagaland and Arunachal Pradesh and that has been showing a great social and economic importance for Assam and other states. Assam is one of the worst sufferers of flood due to river Brahmaputra, Barak, Majuli Island (which a UNESCO declared heritage site), Dhansiri at Numaligarh, Katakhal in Hailakandi district which has been getting sufficient amount of rainfall in monsoon and hence the rivers became sufficient waters fed which results in heavy flood in especially in rainy season which coinciding with a vulnerable situation, which might not only include communities, cities or villages but also poor and old, even modern and well-built libraries.

In the past history, there are several examples of destruction of libraries not only by human actions but also has been ruined by natural calamities. Disaster affects library in many ways and having a big threat as it may arrive in many different forms and North Eastern States in general and Assam in particular which has been a major victims of flood disaster over a past history. Due to the monsoonal climate, flood occurs with unfailling regularity and consequently water enters in the library through the leakages from walls, broken windows, door or even floor.

Library or educational institution build their collections which are based on patron's needs, and for that library spent huge amount of money, but single strike of flood may damage all types of library resources which has been painstakingly classified, recorded and arranged in the shelves over the years. Beside these, newspapers, current periodicals, bound periodicals, govt. documents, materials, text books which are the utmost ornaments of any library.

Disaster in form of severe flood can also affect on readers, library and administrative staff. It may damage personal health, injury or diseases, destruction of valuable library furniture and properties, service and system of library, if library authority is not properly prepared to face any kind of disaster.

1.1 Assam: A Central Hub of Higher Institutions

Assam region is bestowed with two Central Universities (viz. Assam University & Tezpur University), one IIT, IIIT and one NIT with several state universities and colleges. These higher educational institutions are attached with a library, so called academic libraries. The primary role of the academic library is not only to fulfil the “mission” of the higher institution to which it belongs to but also to advance its aim and objectives. It is a central place for study and research. But at the same time, natural calamities may affect libraries in many ways, especially flood is a big threat for libraries in Assam. So, librarian may not forget to giving due importance to disaster planning in their respective libraries.

1.2 Impacts of Disaster on Academic Libraries

It is evident from the past history that, library and information centres have also been stricken by floods, earthquakes, cyclones and fires in India. In many states of India like Assam, Arunachal Pradesh, Tripura, Bihar, Uttar Pradesh, Tamil Nadu and recently in Kerala, the devastating situation of flood have been evident in recent times which have been destroying lives, wealth, animal and agricultural resources. The flood water also equally affected Library and Information centres in that flooded area which results in loss of valuable books, rare reading materials, manuscripts, offline e-resources, making damage to computers and equipments.

Therefore, it is observed that the disaster are of man-made or natural origin, their effects in a libraries can be detected in each sections and causes sudden disruption to the normal activities of libraries and its valuable infrastructures, resultant losses of library computers and its database, networking, book and patron database, IT infrastructure , losses of library rare collections and manuscripts, journals & bound volumes and may also disturb borrowing and circulation services, reference and inter library loan services etc. So, today it is proven fact that natural calamities can happen at any libraries irrespective of small and big libraries and in matter of minutes an entire library can see its infrastructure destroyed and which lead to sense of fears, anxieties, and uncertainties, sociological & psychological consequences among LIS professionals.

1.3 Importance of Disaster Management Planning for Academic Libraries and Information Centres/ Public Libraries

It can be said that natural calamities can be distinguished from each other in term of their nature and extent of their impacts, but ultimate results are causing great losses of life-human beings, animals, plants, buildings and even small and big libraries. Disaster can strike libraries at any time, but if an institution or library is prepared, the damages can be decreased or avoided. However, disaster plan in libraries cannot be designed to respond to all distinguished natural calamities. Even disaster plan can not indicate exactly how each librarian should respond to all disaster because every disaster will have different and unpredictable features. The effective disaster plan, however, can provides workable guidelines to librarians’ appropriate response to any disaster.

Librarian needs to have a set of living documents or set of written procedures to tackle disasters in libraries. Written strategies are the most important steps in preparing against disaster. At first, there should be written documents that acknowledge disasters are possible and quantifying the probability or risk, and there is commitment on the part of the librarian to accept responsibility and challenges to face disaster in a sensible and logical way. Secondly, learn from the past and prepare for the future and take several initiatives before disaster happening such as preparation, prevention, evacuation and responses, during emergencies- immediate response to rescue of library patrons and staff with subsequent quick damage assessment of library properties and finally can take initiatives of immediate protection of rare collections. After disaster there are several workable steps which need to follow such as recovery, detailed damage assessment of library's infrastructures, followed by restoration & repair and after that the steps for recovery & rehabilitation. These are the workable steps which may minimise panic, assure proper decisions, reduce damages of rare collections and minimize price of recoveries. Thirdly, planning steps should provide step by step knowledge and instructions which are easy to follow for library staff and anyone who is called to use them to face disaster in libraries.

1.4 Scope and Limitations

This study is conducted primarily for the purposes of indentifying disaster management plan in academic libraries and is limited to its investigation in the state of Assam, covering both university and college libraries, such as Rabindra Library-Assam University; Central Library-Tezpur; Central Library-KKHSOU; Radhamadhav Library; Girls' College

Kokrajhar Library; Kamal Kumar Brahma Central Library; Science College ,Kokrajhar; Women's College Central Library; Central Library-Anundoram Borooah Institute of Language Art and Culture; S.B Deorah College Library; Abhayapuri College Library; Pub Kamrup College Library; HNDB, Central Library; Central Library-Dhakuakhana College; M.C.Das College Central Library and Madhabdeb College Library, Lakshimpur only.

1.5 Statement of the Problems

In the 21st century, due to the huge advancement of ICT and its relevant impact on libraries, most of the librarians remain focused on ICT implementation & automation, they were mostly found to digitize, automate their library. But at the same time, College and university librarian should not forget to give due importance to disaster planning in their respective libraries. Today's modern library buildings are equipped with fire fighting equipments but they have neither been used nor assess their conditions. Even though a big threat of disaster, disaster management issues has not been given adequate importance in the libraries and Library & information science (LIS) curriculum in India, resulting lack of awareness about how to face disasters. That is why, this problem has been chosen as a research problem and to find out disaster management scenario in academic libraries of North East India with special emphasis on College and University Libraries of Assam.

1.6 Objectives of the study

- ❖ To examine disaster awareness among the library staff;
- ❖ To assessing disaster risk and vulnerability in academic libraries;

- ❖ To find out disaster management and strategies in case of natural calamities happened in libraries;
- ❖ To know maintenance and inspection frequency of disaster fighting equipments in academic libraries;
- ❖ To examine the various possible measures to be taken in advance by the academic libraries to protect printed and offline electronic resources/ learning resources; and
- ❖ To explore the opinions / viewpoints of Librarians towards implementation of disaster management plans in their libraries.

2. Review of Literature

Since present study is conducted to define importance and concept of disaster, to identify present scenario of disaster management plan and awareness among LIS professionals, various literatures have been consulted from the primary and secondary sources to collect relevant data to meet the objectives of the present study.

3. Research Methodology and Research Design

It is a descriptive study in which the Survey Method of research has been adopted. The questionnaire has been used as a data collection tool.

3.1 Sampling Technique Adopted

Purposive Sampling Technique has been adopted to select the libraries and the Librarians.

This study was conducted during May 2018 to mid of August 2018. On the basis of age of the colleges and universities, the libraries / respondents have been selected.

3.2 Design of Questionnaire

To collect data and to find a solution to research problems, a questionnaire was framed using Google Forms consisting to seven numbers of questions and profile of the library.

3.3 Administration of Questionnaire and Responses Received

The Online questionnaire in Google Form was developed and emailed to selected 25 number of college and university librarians and persuaded them through e-mail and phone calls to respond the questionnaire. Altogether 15 filled up questionnaire have been received which is not encouraging response. The low response rate indicates the little awareness and seriousness of the LIS professionals to address this issue. On the basis of responses, data has been coded and tabulated in MS-Excel and analysed.

4. Data Analysis And Interpretations

The first part of study shows the library background and second part of the study shows the initiatives and planning of college and university librarians towards prevention of threats / damages caused by the unexpected disasters which are discussed in following headings and sub-headings:

4.1 Background of Library

4.1.1 Locations of the Libraries

The survey result depicts that out of 15 libraries under study, maximum number of libraries (8=53.33%) are located in semi urban localities which is followed by 4 (26.66%) academic libraries which are located in urban area whereas only 3 (20.0 %) libraries are situated in rural areas.

4.1.2 Terrain and Geographical Locations of the Libraries

The survey finding reveals that out of 15 libraries, 20% (3) of librarians said that their libraries situated in low-lying areas and they were partially affected during heavy rains, because of libraries are located in ground floor. Similarly, out of 15 libraries, five (33.33%) respondents agreed that their libraries are located in very humid area and they have been suffering a lot specially in summer and rainy seasons whereas maximum number of libraries (10=66.66%) are not affected by humid condition. Further out of 15 libraries, only 4 (26.66%) respondents admitted that their libraries are situated in mountains/Hilly area and that may cause disaster to their libraries whereas 11 (73.33 %) libraries have not such problems.

4.3 Status of Independent Library Building

The survey result reveals that out of 15 libraries, only 6 (40.0 %) libraries are having their own independent library building where as as maximum number of libraries (9=60.00 %) libraries are still running in other departmental building.

4.4 Provision of Stack Area, Space of Reading Rooms, Administrative and Archives

The survey finding reveals that out of 15 libraries, maximum number of libraries (13 = 86.66%) respondents agreed that they had separate reading rooms usually furnished with comfortable chairs and study tables followed by similar percentages of librarians also agreed that their libraries are well planned with separate stack space /area for library collection whereas only two libraries (13.33 %) are not having separate space for reading room facilities with comfortable furniture and stack areas.

Further a good number of libraries (12=80.00%) are having adequate space for administrative work in the library whereas only 3 (20.0) libraries are not having sufficient space for doing administrative works. If we look into space for space for archiving rare and old reading materials, it has been observed that out of 15 libraries, a good number of libraries (10= 66.66 %) are having space for archives preserving rare, old books and other reading materials, manuscripts etc., whereas only 5 (33.33 %) libraries are not yet having space for to preserve rare documents. Lack of space for archives makes the valuable reading materials and rare manuscripts and the important documents vulnerable for getting damaged and destroyed permanently. The college and university libraries should pay attention towards of creating space for development of archives with air-conditioning and proper furniture.

4.2 Strategies and Planning for Disaster Management in Libraries

4.2.1 Provision of Emergency Exit in Libraries

In all libraries and information centres, provision should be made for emergency exit or evacuation in case of any disasters like fire, flood, earthquake etc. The survey finding as indicates that out of 15 libraries, only 6 (40%) libraries are having provision of emergency exit door/ gate in libraries whereas maximum number of libraries (9=60.0%) libraries are not equipped with the emergency exit provisions which may led to problems in case of sudden disaster happenings.

4.2.2 Opinion of Librarians towards Possibility of Threat of Risk Factors to Natural Calamities to the Libraries

The main purpose of the present research question is to examine the opinion of librarian on various risk

factors for probable causes of disasters and probable risk factors which may damage their libraries maximum. The survey finding reveals that out of 15 libraries, less than 50.0 % respondents (7=46.66%) felt that earthquakes are of major possibilities to be happen in their libraries followed by thundering, heavy rains and fire disasters, it is quite surprising that flood and landslide are not very much concern as a risk factor and it has been recorded in decreasing risk factors.

4.2.3 Preventive Measures Taken by the Library to Fight Disasters

The college and university libraries are taking many preventive steps to avoid the disasters to be happened. From the survey findings it is found that majority of libraries (14= 93.33 %) installed various types of modern fire extinguisher devices in their libraries whereas only one library has not installed these devices. Further 14 (93.33 %) libraries are also having uninterrupted power supply and 12 (80.0%) libraries are also having data backup system. About 13 (86.66%) libraries do not allow smoking & eating's in their library premises whereas 10 (66.66%) libraries are having good plan for water proofing of the library building walls, floors, ceilings & basements.

It has also been observed that out of 15 libraries only 5 (33.33 %) libraries have installed short circuit & smoke alarm whereas majority of libraries have not installed short circuit & smoke alarm which may lead to the accidents in their libraries. It has also been observed that majority of libraries (8=53.33%) have not displayed the emergency contact numbers for calling ambulances, fire, police station and control rooms whereas only 7 (46.66%) libraries have displayed the emergency contact numbers at prominent places.

4.2.4 Frequency of Maintenance and Inspection of Disaster Fighting Equipments in Library

In any library and information centres, it should be necessary to inspect the disaster fighting equipments and devices regularly. When these variables were asked to the librarians, it has been observed that majority of librarians understand the importance of maintenance of disaster management devices and equipment on regular intervals except few.

The findings show that out of 15 libraries, majority of (8=53.33%) respondents carried out a plan for maintenance and inspection of fire extinguishers system in regular intervals, while 3 (20.00%) respondents disclosed that they collectively inspect their fire extinguishers system in rarely, where as 6.66% of librarian chosen the option of no idea about the frequency of maintenance of fire extinguishers system in library. Further in response to the queries of checking of alarm system only 5 (33.33%) respondents agreed that they were rarely inspecting alarm system which is followed by 4 (26.66%) respondents are in confusion whether they should regularly check alarm system or not, whereas least number of respondents stated that they were regularly inspecting their alarming equipment.

It has also been observed that out of 15 libraries, majority of respondents (9=60.00%) manage time to properly check electric equipments in regular intervals, while rest of the librarians check their installed electric equipments rarely (5=33.33%) and sometimes (1=6.66 %).

While asking question to the Librarians about the frequency of maintenance of IT backup and security procedures, it was found that more than 50% (8=53.33%) of libraries have regularly doing the

checking process of their IT backup and security procedures, while 5 (33.33%) librarians replied that they inspect and check IT backup and security procedures quite occasionally and sometimes. Further out of 15 libraries, majority of respondents (53.33%) found that they were occasionally take initiative for overall maintenance of library's buildings, and in the same way out of 15 respondents, 5 (33.33%) of librarians replied that they reviewed security measures on regular intervals, while same percentage of librarians reviewed their security measures not on regular intervals. On the other side, least number of librarians doesn't have any idea about review of security measures in their libraries.

4.2.6 Measures to be Adopted for Protecting Electronic Resources by the Library

The survey result reveals that majority of respondents (14=93.33%) reported that since backup is the only scope to recover data in case of losses, so they took backup of important data on library's computers. When questioned on "does your library take backup data on another computer outside the library", all the respondents (100.00%) stated that they have not yet started to taking backup data on another computer outside the library. On the other side, out of 15 respondents, 14 (93.33%) librarians took manual backup and very least number of libraries took automatic backup. Beside these, 14 (93.33%) libraries reported that they have antivirus software with up gradation facilities.

4.2.7 Suggestions and Recommendations offered by the Respondents

The survey findings of the suggestions show that after analysis of overall opinions of the librarians, it was concluded that 6 (40%) of respondents believe that because of workload disaster management is not given much priority in their libraries, while 4

(26.66%) librarians completely disagreed that workload is major constraints for implementation of disaster plan in libraries. On the other hand, 7 (46.66%) respondents viewed that existing arrangements are not enough to protect their libraries in case of disaster happen, whereas, 5 (33.33%) respondents agreed that their existing arrangements are enough to face any kind of disaster.

When asked a question on issues of senior management's support to take initiatives and implement plan against disaster, it was found that 7 (46.66%) librarians agreed that their higher officers don't consider and give priority to disaster plan in their libraries which has been followed by 4 (26.66%) of librarian even strongly agreed that their senior managements are not very much conscious on disaster plan and its implementation issues in libraries. In response to the question of allocation of fund to implement disaster plan in libraries, large number of respondents believe that funds are major constraints to implement disaster plan in their libraries.

5. Important Findings of the Study

- ❖ Present study reveals that majority of respondents agreed with probabilities and possibilities of an earthquakes and fires that may happen in their region and as well in their libraries;
- ❖ The study indicates that majority of the academic libraries doesn't have emergency exit door;
- ❖ Out of 15 libraries, 60% libraries don't have independent library building and most academic libraries attached either administrative sections or departments;

- ❖ It was found that majority of libraries are installed fire extinguishers system in their libraries to prevent fire;
- ❖ The study also reveals that large part of academic libraries maintains guidelines to restrict smoking and eating in library premises;
- ❖ Major part of the academic libraries has taken precautions and measures of water proofing the building walls, floors, ceiling and basement to protect libraries from overall disaster;
- ❖ It was also found that majority of libraries having facilities of uninterrupted power supply in case of power failures;
- ❖ It was found that more than half of libraries were not installed board of emergency contact number to get instant help in case of emergency;
- ❖ While question asked about the maintenance and inspection frequency of disaster fighting system, it was found that checking and maintenance of fire extinguishers has been done on regular intervals, followed by majority of respondents stated that they have also been regularly checking electrical equipment;
- ❖ It was also found that majority of librarians informed that no initiatives have been taken by the administration for regular maintenance of library buildings;
- ❖ This study also shows that majority of academic librarians took manual backup of important data on library computer and most of libraries having antivirus S/W and up gradation system;
- ❖ When question asked “does your library take backup data on another computer outside the library in case of disaster strike library’s computer, it was observed with surprise that

100% of libraries doesn’t take any initiative to store data on another computer outside the libraries;

- ❖ It was also found that majority of librarians strongly agreed that because of their busy schedule and heavy workload, they don’t get sufficient time to think on disaster management plan and its implementation in their libraries; and
- ❖ Majority of librarians agreed that neither senior management has been giving adequate priority to disaster management plan nor release sufficient fund to implement the same in the libraries.

6. Recommendations and Sugestions

- ❖ At regular intervals, librarian may review the plan for maintenance of library buildings and overall security measures to be taken to keep library safe from the disaster;
- ❖ It is suggested that those libraries which do not have such provision of emergency exit, must think over it and request the authority to keep a provisoin of emergency exit in libraries for use in case of emergency.
- ❖ All emergency numbers may be have been displayed in the prominent locations of the libraries to get instant help in case of any emergency;
- ❖ Every library needs to install Fire Alarm System and CCTV camera for security;
- ❖ Automatic backup system has to be installed to prevent loss of data in case of digital disaster;
- ❖ Librarians needs to take data backup on another computer outside the library at another location;

- ❖ Since disasters are in many forms, any existing disaster plan is not enough to prevent them, so the Librarians should re-evaluate and re-design existing plans to counter any kind of disasters. Beside it, regular mock drills need to be conducted which would be helpful to find out technical problems and examine other issues in existing disaster plan to counter any kind of disaster in future;
- ❖ The college and university library management and authorities should take disaster seriously and allocate sufficient funds to implements disaster management plan in libraries;
- ❖ Disaster management training courses need to be incorporated in the course curriculum of the Library and Information Science; and
- ❖ Disaster management course need to be started at school level to make the young generation aware of the situation.

7. Conclusion

The main purpose of this article is to create awareness among LIS professionals and administrative authority aware by holding regular meetings and discussions with the authorities and address this matter in the seminars, conferences and workshops at national levels to discuss all the related issues of disaster management plan in libraries.

Therefore, it is concluded that disaster management planning is one of the important issues and the Library administration and College & University Management should give more importance and priorities to tackle the disaster planning issues and make all advance plan to fight the challenges of disasters in future.

Further Reading

1. ABAREH, Henry Maina (2014). Survey of disaster preparedness by head of academic libraries in North-Eastern Nigeria. *Global Journal of Academic Librarianship*, Vol. 3, No.1,45-58.
2. GAUR, Ramakant (2008). *Disaster Management*. (pp.1-2). Delhi: GNOSIS. New Delhi: Deep and Deep Publication.
3. GOEL S.L. (2007). *Disaster administration and management: text and case studies*.(pp.1-20).
4. GUPTA, Harsh. K. (2007). *Disaster management*.(p.23).Hyderabad: University press.
5. KOSTAGIOLAS, Petros. ARAKA, Iliana, THE ODOROU, Roxana, and BOKOS, George. (2011). *Disaster management approaches for academic libraries: an issue not to be neglected in Greece*. *Library Management*, Vol. 32 No (8/9), 516-530.
6. SINGH, Tej. (2006). *Disaster management: approaches & strategies*.(pp.2-18).New Delhi: Akansha
7. SATPATHY, Kishor Chandra and SINHA, Manoj Kumar (2012). *Role of Library in Disaster Management : A Case Study in North East India In Preservation of Information Resources in 21st Century* (Eds: Pravakar Rath , R. Ramachandran and R.N. Mishra), , (pp. 257-272) New Delhi: Today and Tomorrow Printers and Publishers. (ISBN: 81-7019-462-8 (India); 1-55528-322-5(USA).
8. SINHA, Manoj Kumar (2014). *Role of Libraries, Archives and Museum in Conservation and Preservation of Cultural and National Heritage with Special Reference to North East India*. In

(NIFT-ICLAM-2014 : International Conference on Convergence of Libraries, Archives and Museums : Innovative Ideas, Technologies and Services (Eds: Sanjeev Kumar et.al.), organised by NIFT, New Delhi in collaboration with IFLA during November 27-29, 2014, (pp.533-544) , New Delhi : Pragun Publication (ISBN : 978-93-80397-52-8).

About Authors

Prof. Manoj Kumar Sinha, Professor , Head, DLISc, & Dean, Swami Vivekananda School of Library Sciences, Assam University, Silchar.
Email: mksinha1965@gmail.com

Shri Saroj Kumar Mandal, Library Assistant, Rabindra Library, Assam University, Silchar.
Email: sarojlis@gmail.com

Note:

Online version of this paper, associated data, files and other supplementary materials are available on Institutional Repository of INFLIBNET Centre. It can be accessed online by scanning QR Code or using following URI:
<http://ir.inflibnet.ac.in/handle/1944/2277>



