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Role of Library and Information Centres In Disaster Management

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Abstract
The present paper highlights the importance of library and information centres in managing a disaster or any emergency. The main thrust of the paper is to explore the possible roles that the library professionals may assume in case of disasters besides their regular or routine jobs. The concept of disaster management, types of man- made and natural disasters have also been discussed in detail. The paper discusses library professionals' role in managing the emergencies for the local community in particular and for the library and information centres in general. Various components of information and communication technology helpful in the reduction of damage by natural disaster have also been discussed. It also briefly mentions the initiatives taken by UNESCO in educating and spreading awareness among people regarding reduction in the impact and affects of any potential disasters or any emergencies. The future vision from the librarian's point of view in making a disaster reduction plan and making society aware of disasters is also suggested at the end of the paper.
Keywords: Disaster, Disaster Management, Information Centres, Information and Communication Technology.

INTRODUCTION

The library and information centres world over have experienced a sea change in the methods of acquiring, processing, storing and making that information available to the end users especially after a revolution in the information and communication technologies**.** Libraries have very successfully geared themselves to adopt any new technology that is emerging with new innovations every day. Libraries are now functional 24x7 day and night in a networked world. In the era of www, internet and other technological advancements that have been implemented in library and information centres, the librarians are now facing a new challenge in managing the affairs of their institutions in the present scenario of new modes and methods of information bases, new formats of storage, and ever changing information seeking behaviour of the users. Librarian is now working as an information scientist, researcher, educator, psychologist, coordinator, public relations officer and what not.

With huge responsibilities on the shoulders of a librarian or the information scientist one has also to safeguard and preserve the variety of precious and invaluable information sources and tools in print and non-print form, staff and other infrastructure from any potential disaster or any risk. These disasters – man made or natural can completely or partially damage the information sources and infrastructure kept and preserved for the use of present generation and for posterity. At the same time it can also paralyse the functioning of that particular library and information centre where the disaster has hit. It is in this light why planning to face any potential disaster is so important.

OBJECTIVE

The objective of the present study is to ascertain and suggest the roles, a librarian and the supporting staff, library and information centre may assume or perform during any disaster or emergency. How the library and information centres can be helpful during any emergency for the community and how a disaster can be best managed by pre planning, preparation and response are the other angles of this study. The paper also aims to spread awareness among people and sensitise the library professionals in particular for their prospective roles in case of any emergency.

RESEARCH DESIGN AND METHODOLOGY

The study involved interviews, enquiries into the present operations, services and functions of the library and information centres and has tried to explore whether the libraries have ever encountered any disaster and how these libraries managed that disaster. A structured questionnaire was designed that would address the objectives and requirements of the study.

It is an exploratory research in which the selected population constituted the librarians and assistant librarians of the libraries of four post graduate degree colleges, the assistant library and information officer of Post Graduate Institute of Medical Education and Research (PGIMER), and Central State Libraries (Sector 17 and Sector 34), situated in Chandigarh(U.T.), joint capital of the state of Punjab and Haryana, India. All the libraries which have been selected for this study are being managed and run under the Department of Higher Education, Chandigarh Administration and Govt. of India. Only the government libraries and information centres have been taken as a study population.

An effort has been made by the researcher to explore the kind of help that the librarians and information centres can provide to the local community and society as a whole during any disaster besides supporting their own institution.

CONCEPT OF DISASTER MANAGEMENT

Eden and Mathew (1996) define disaster as an incident which threatens human life/ or/ and damages or threaten to damage a library building, collections, equipment and systems.

The Dictionary for Library and Information Services (2005) defines a disaster plan as a set of written procedures prepared by the library staff in advance to deal with an unexpected occurrence that has the potential to cause injury to personnel or damage to equipment or to collections and/ or to facilities sufficient to warrant temporary suspension of services.

Such disasters in any library can damage the print material, documents, records, computer systems and the invaluable information stored in different storage media.

TYPES OF DISASTERS

Disasters or emergencies can be caused or produced by a variety of natural and man made agents.The natural agents or reasons of disasters can be climate and weather with their different phenomena such as clouds, precipitation, avalanches, blizzards, dust storms, drought, earthquakes, floods, tsunamis, hurricanes, landslides, wildfires, tornadoes, volcanic eruptions and many more. The man made reasons may vary from the poor design and quality of the buildings and properties to no or very poor maintenance, leakages, electric short circuits, burglary, vandalism, arson, wars etc.

MANAGEMENT OF DISASTERS

Owing to human nature the plans to counter any emergency are normally put off with the thought of experiencing such a crisis as a distant thought. An ounce of prevention is worth Pound of care and prevention is always better than care are the most valuable and natural aphormisms for any disaster prevention. Planning though not completely helps to prevent the disaster but it definitely helps to lessen the impact of its damage. Any plan should be clearly spelt in black and white with all the necessary inputs of familiarities with disaster, risk involved, financial implication, training of staff, etc. The disaster control plan involves four stages as following:

1. Prevention ,
2. Preparedness,
3. Reaction , and
4. Recovery.

UNESCO has provided its 2005 convention online " International Strategy for Disaster Reduction " and a portal for making aware the community as " Memory of the World ".The Director General of UNESCO, in her massage on International Day for Disaster Reduction 2010, (Oct.13,2012) pointed out the need " to promote a culture of disaster reduction, placing the emphasis on pre disaster action rather than contenting ourselves with post disaster reaction."

DISASTER MANAGEMENT FOR LIBRARY AND INFORMATION CENTRES:

Disaster management plan is a must be incorporated in initial planning of establishing a library and information centre. Several smaller pointers for a comprehensive disaster management plan, which are independent of each other but are interlinked, as parts of whole plan are set forth. The disaster and its control mechanism normally go through three stages – before, during and after. All these three stages are kept to be kept in mind while planning to minimise the impact and recover out of potential emergencies.
Each disaster plan must cover whole of the library and information centre including staff, readers, sources of information, equipment and infrastructure and it must be a team effort.

LITERATURE REVIEW

Besides the traditional roles that the library and information centres perform towards the society as a service centre and being at helm of affairs in providing information on all vital aspects for the growth and development of the society, these centres can play much bigger role during any disaster.
(Matthews and Eden,1996) in a research paper on Disaster Management Training in Libraries presents the findings of a research project that was undertaken by British Libraries covering libraries, information centres, museums, archive centres. Certain policies and practices have been suggested which should be adopted in libraries for managing a disaster. Major emphasis is given on the points that libraries should work in cooperation, take practical measures to minimise disaster risk, preparedness for a quick response. A practical and regular training session is essential for any disaster management programme. (doi 10.1108/00242539610107730).

As far as **Indian scenario** is concerned, enacting Disaster Management Act in 2005 (www.rajyasabha.nic.in/bills-ls/2005/LV_2005.pdf), Govt. Of India established National Disaster Management Authority (ndma.gov.in). Earthquakes, floods, river erosion, cyclones, tsunamis, landslides, avalanches and forest fires are included under natural disasters and nuclear & chemical destructions, mine disasters, biological disasters, cyber terrorism and environmental disasters are covered under reasons because of human activities or interventions.20 guidelines have been issued from time to time since 29.6.2009 by NDMA covering natural & man- made disasters.

Another institution National Institute of Disaster Management (NIDM) functions as nodal centre for human resource development in the area of disaster mitigation and response. Capacity development, with other institutions is one of the major concerns of NIDM. Besides this training, research, documentation and development of a national level information base also comes under NIDM. It is to network other knowledge based institutions and closely work with them.

International Strategy for Disaster Reduction (ISDR), in Hyogo Framework for Action 2005-2015 has suggested a plan for building the resilience of nations and communities to disasters with challenges posed by disasters and the Yokohama Strategy,2004 : Lessons Learned and Gaps Identified as the preambles.

National Library of Medicine (NLM), USA, has instituted Disaster Information Management Research Center (DIMRC) for preparing a long range plan, 2006-2016 to help the National emergency preparedness, response and recovery efforts. The Specialised Information Services (SIS) perform the task of collecting, organising and disseminating the health information resources and information related to disaster of natural, accidental or deliberate origin. Many educative programmes like seminars, symposia are organised for the librarians from time to time and many links to related databases, disaster related organisations, emergency response tools have been provide on the website of DIMRC (www.nlm.nih.gov).

The efforts and programmes of Control Plan for any disaster which have been put online by the M25 Disaster Control Plan of United Kingdom and COOL (Conservation Online) by American Institute for Conservation, covering cultural, property, materials are worth mentioning.

Disaster Management Bureau under the Ministry of Food and Disaster Management have established a Disaster Management Centre in Bangladesh which provide information on current situation about weather related phenomenon like storms etc. , measures taken by different agencies for recovery, and latest weather situation.
(Satpathy,2007) in his article Role of Libraries in Disaster Management : Experience from NE India has elaborated that during floods in 2004 in Barak Valley of Assam libraries acted as rehabilitation centre and in coordination with NGOs and rescue teams , the library staff also worked as rescue workers. Because all other networks failed library provided a base for information centre.

Featherstone, Lyon, and Ruffin (2008) in their oral history project concluded that the librarians and other supporting staff acquired the role of planners, community supporters, information builders relating to different government schemes for recovery and rehabilitation etc.

INFORMATION TECHNOLOGY FOR DISASTER PREVENTION

The technological advancements especially in the information and communication sector have provided a real yardstick to warn, prepare, share, respond, quickly to a disaster for minimising its impact and in some cases it is even possible to avoid the damages by a natural disaster .Following technologies can be helpful in the reduction of damage by a disaster:

1. Remote Sensing Technology,
2. Geographic Information System,
3. Global Positioning System,
4. Forecasting and Warning System,
5. Communication Technology,
6. WWW and Internet.

Remote Sensing technique can be helpful to read possible threats of any weather disturbances through its weather and other observation satellites. It helps in gathering data by means of radiation from electro-magnetic spectrum. **Geographic Information System** integrates stores, edits, analyzes, and shares geographically referenced data and is helpful during floods, landslides, earthquakes**. Global Positioning System** is a technology by means of which one can pinpoint the exact place where disaster has struck. The exact damage site then can be visited to start rescue operations. This can be very effective for search and evacuation of displaced people or people buried under debris. **Warning and Forecasting System** plays a vital role in determining the possible action of a disaster. The potentially affected area can be evacuated and people can be moved to safer places even before the disaster. It is effective for floods, cyclones. Earthquake Warning System is being used these days to warn people against its possible strike. **Communication Technology** is particularly effective in mitigation, preparedness, response and recovery. Internet, Fax, Mobile phones, E mail, Radio and Television can all be used to spread and share information relevant during and before any disaster. WWW and Internet provide a global platform for instant and automatic sharing of information regarding a disaster and its management. The latest tools, methods, technologies, weather forecasting, satellite images and other relevant data can be put on web for sharing and exchange.

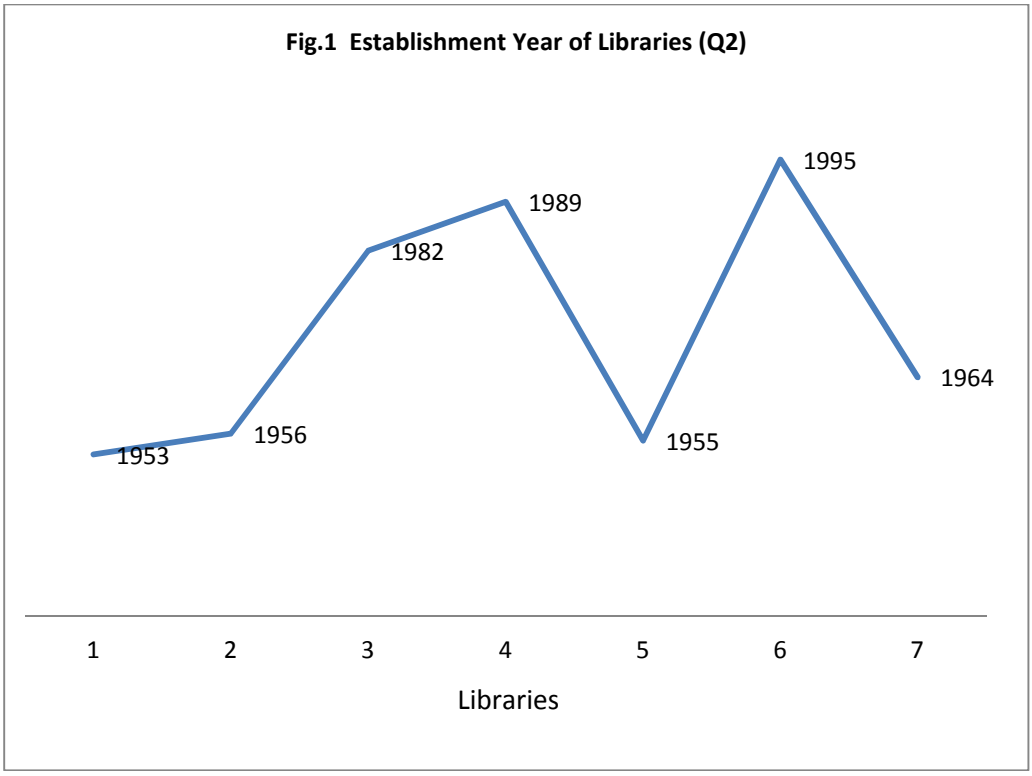
DATA ANALYSIS AND FINDINGS:

The primary data collected by the investigator was tabulated on MS Excel Spread sheet and simple percentage method was employed to arrive at the results and findings of data analysis which is graphically shown by pie charts, line graph and bar graphs. The responses gathered from the librarians and information officers are tabulated below to have a better understanding of the findings. All answers in “yes “ and “no” have been codified as 1 and 2 respectively except for question number 3 a and 9 K. Names of the institutions under question 1 have been tabulated as LIB1...LIB7. The questionnaire has also been attached for the reference. Since the number of libraries taken under the present study constitutes the government managed libraries and cater to the needs of academic, medical and general users, the responses received are 100 %, which are liable to be different but the final results show a similarity in their responses. The responses given by the respondents have been tabulated in the following table which forms the basis of the findings. Apart from the responses given as per the questionnaire, interviews and observation method has also been taken into account by the researcher. A summary of the findings based on the analysis of the data is listed below along with the table :

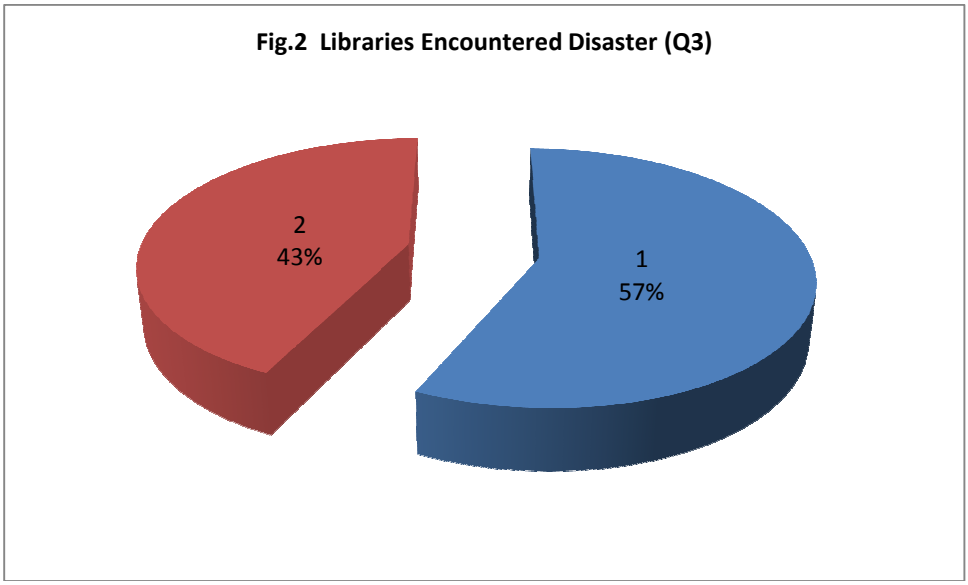
Q 1.Name of the Library	Lib.1	Lib. 2	Lib.3	Lib.4	Lib.5	Lib.6	Lib.7	
~~Q2.Establishment~~ year	~~1953~~	~~1956~~	1982	1989	1955	1995	1964	
Q3.Encountered Disaster	1	2	1	1	1	2	2	1=57% 2=43%
Q3a.Kind Of disaster					Fire	Basement flooded	Fire	Fire=29% Floods=14%
Q4.Disaster plan		2	1	1		2		1=29% 2=29%
Q5.Disaster plan	1	2	1	1	1	2	1	1=71%

in Staff Knowledge								2=29%
Q6.Budget allocation	1	2	1	1	2	1	1	1=71% 2=29%
Q7.Training for staff	1	2	1	1	2	2	2	1=43% 2=57%
Q8.Willingness to perform any duty during disaster	2	2	2	2	2	2	2	2=100%
Q9A.Support parent institute	2	2	2	2	2	2	2	2=100%
Q9B.Protect collections & Restore services	2	2	2	2	2	2	2	2=100%
Q9C.Share Information	2	2	2	2	2	2	2	2=100%
Q9D.Rescue & co worker	2	2	2	2	2	2	2	2=100%
Q9E.Disburse aid, find shelter Work with local admin.	2	1	2	2	2	2	2	1=14% 2=86%
Q9F.Restoration of water etc.	1	1	2	2	1	2	2	1=43% 2=57%
Q9G.Spread awareness	2	2	2	2	2	2	1	1=14% 2=86%
Q9H.Act as nodal agency to share information	2	2	2	2	2	2	2	2=100%
Q9I.Prepare reports	2	2	2	2	2	2	2	2=100%
Q9J.Prepare knowledge base	2	1	2	2	2	2	2	1=14% 2=86%
Q9K.Any other role		Awareness among students				Depends on nature/time/situation		2=29%(only two responses)

1. All the libraries were established between 1953to1995 which form the part of present study. The oldest library under the study was established in the year 1953 as an academic library and the youngest library as a public library, Divisional Library (South) was established in the year 1995.



2. Three libraries, 43% encountered disaster in the form of fire and floods and 57% of the respondents did not face any disaster.. Two of these three libraries (67%) faced fire due to short circuits and the basement of one library (33%) flooded because of heavy rains. However, out of the 7 libraries 29% libraries faced fires and 14% libraries encountered floods making it to 43% libraries which have faced disasters.

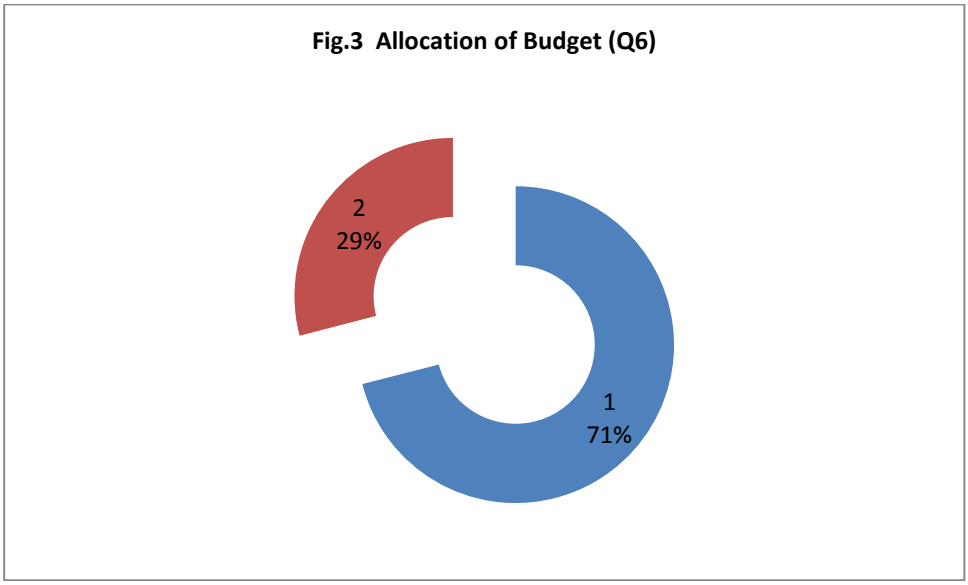


3. Only two libraries (29 %) have a disaster plan in their libraries and the respondents were not sure whether the plan is now available in black and white or not.

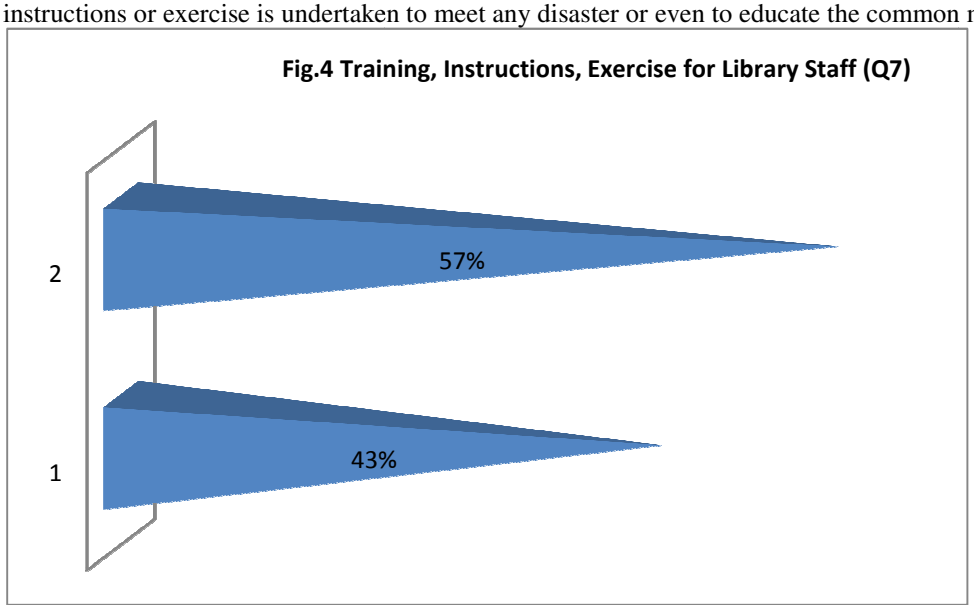
4. The staff of the two libraries having a disaster plan is aware of such a plan in their library which makes up only 29 % of the total responses and another 29% responded negatively for having any disaster plan. 42% of the total respondents skipped the question.

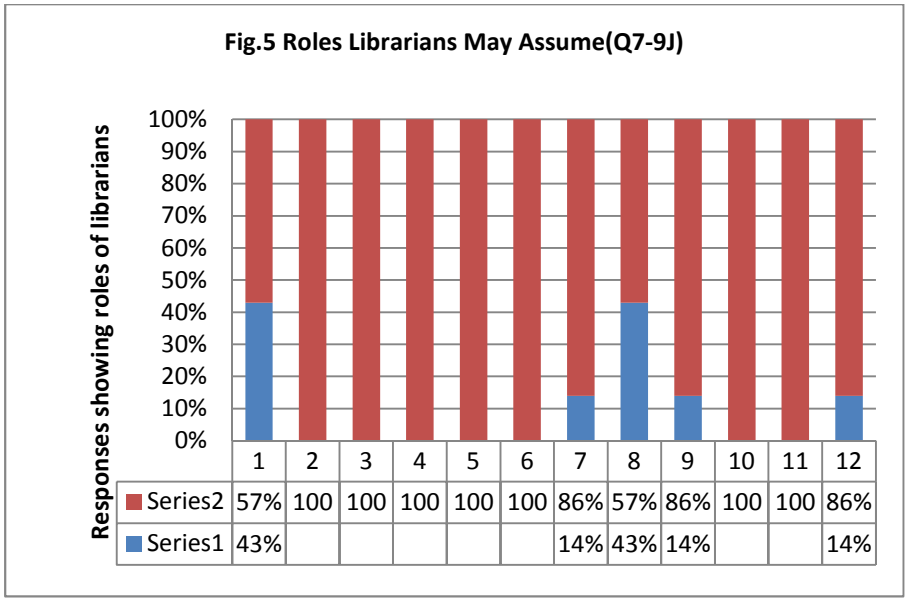
5. Only two librarians responded positively for the availability of the budget for meeting any eventuality in case of disaster making it only to 29 % of the libraries having budget for such a cause and 71 % of the total libraries

did not have any special budgetary provisions to meet the challenges posed by potential disaster. One of the librarian was of the view that the budget available is only to upgrade the present equipment available in the centre to control fire or as the need be. However, for meeting any expenses for disaster the budget allocation lies with the Chandigarh Administration which is to be sanctioned or sent to the concerned library only if some disaster has struck but the decision of budget allocation lies with the Chandigarh Administration.



6.A majority of the librarians (57 %) agreed that the library and information centre provides special training to counter any disaster . Instructions and briefing is also done from time to time. One public library admitted of employing a first- aid training to its staff. However (43%) respondents were of the view that no training, instructions or exercise is undertaken to meet any disaster or even to educate the common masses.





7. All the librarians in all the information centres making it to 100 % agreed to acquire any role during any emergency besides their regular job.
8. There was a 100 % positive response to support their parent institution where they are working. They were ready to collect and post the information on web or display it electronically regarding displaced staff of their centre and members of library.
9. The library staff (100 %) is ready to protect their collections and to restore the services of their centre for the benefit of the community as early as possible.
10. 100 % librarians are ready to share and disseminate information relevant to protect self and community during any disaster.
11. All the respondents (100 %) agree to volunteer as rescue and co-worker with other people engaged in the welfare of the affected masses.
12. 86 % of the respondents are ready to work with the local administration to help the disaster victims in disbursing aid to them, to find shelter, to provide information to the victims about the different schemes launched by the government for community welfare while 14 % of the respondents disagree to perform this kind of duty.
13. Only 57% respondents agreed to work with public health department to save local flora and fauna and saving environment, helping in controlling the spread of any disease by means of distributing medicines etc., and also for helping to restore the water supply and 43% respondents were not ready to take up this job.
14. A majority of the library and information centres (86 %) agree on the point of spreading awareness among the society/community through mobile library services, especially where communication set up is not available or weak or has been completely damaged and are also ready to deliver lectures, presentations, organise workshops for making people aware of the yardsticks which can minimise the damage and providing them the information of the latest welfare schemes launched by the govt., and NGOs. Only 14% of the total respondents disagreed for not doing this job during any disaster.
15. All the respondents (100%) agreed their library will act as a nodal point /agency for supporting and sharing information with other libraries and sister concerns and help them in restoring their services for the well- being and concern of the affected & general people.
16. 100 % centres responded and agreed to make reports for the government departments and for the common public listing the displaced or missing or dead people, and make assessment of damage with the help of an expert and kind of aid and help required in the affected area.
17. 86 % library and information centres agreed to prepare a knowledge base regarding any disaster or emergency that will be shared on web for immediate consultation for the benefit of the community while only 14% of the respondents showed their disagreement with this kind of duty during any disaster.
18. One academic librarian admitted to educate students about the measures and tools that are to be kept ready for use during disaster so that the students can act as key persons in spreading awareness among the society regarding minimising the effect of these disasters. Another librarian from a public library admitted to acquire any role depending upon the nature, time and situation of the disaster. The total responses to this question comprised only 29% of the total respondents as only two responses were received out of total 7 respondents.71% respondents did not show any interest in providing an answer to their assuming of any role other than mentioned above.

INTERPRETATION OF THE FINDINGS

In most of the cases the librarians and the supporting staff is ready to assume any role and help the community during any disaster.100 % of the respondents are ready to act as a support for their institution, to act as co-worker, to share and disseminate the relevant information regarding any disaster through web. A majority of them around 86 % agree to work with local administration to help in rehabilitation and recovery from the emergency. Although all the libraries are equipped with fire fighting instruments but a majority of the staff is not sure of its handling, even they have not checked its expiry dates.
The lack of any special budgetary provisions is a cause of concern because without finances at the discretion of the library administrator, an immediate action to tackle the emergency cannot be taken up. Another point is of provision of any training or instructions for the working professionals to protect self, their resources, community, and to educate common masses regarding potential risks from any disaster and the measures to safeguard themselves against the disasters. One most glaring outcome of the study shows that only 29% of the respondents agreed to have a disaster plan in their libraries and a large majority 71% even are not aware if there is any such plan which addresses the issue of disaster management.

FUTURE LINE OF ACTION

Lack of planning at all levels, lack of mitigation planning, lack of coordination and networking, delayed response and lack of trained man power, forces us to think that how serious are the authorities and library professionals for having a proper disaster management action plan. The importance of planning of disaster reduction needs serious and concerted efforts with a multi layered cooperation and coordination between all the stake holders,i.e.,government agencies, NGOs, and library and information centres.

CONCLUSION

Creation of a disaster management knowledge base related to different disasters occurred anywhere in the world in a networked mode, including the counter and recovery plans is the need of the hour. Mobile libraries can help to a greater extent in educating the people to safeguard themselves against emergencies. The library and information science curricula also needs to be modified keeping in view the importance of disaster management for library and information centres and above all because libraries world over act as service agencies and librarians as service and information handling managers.

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