Building Resilience and Safe Guiding Strategies for University Libraries in Disaster-Prone Areas: A Study of Hazara Region, Pakistan

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University libraries in disaster-prone areas are increasingly at risk from natural and man-made disasters, such as earthquakes, floods, fires, and technology meltdowns, which can disrupt library services and potentially lead to the loss of valuable materials. The Hazara region in Khyber Pakhtunkhwa, Pakistan, is particularly vulnerable to such disasters. However, the level of disaster preparedness of libraries in this region has not been extensively studied.

This research aims to examine the existing disaster preparedness, response, and recovery protocols in public and private university libraries across the Hazara region. The study population comprised the library staff of all five universities in the region. Qualitative research and purposive sampling methods were utilized. 15 semi-structured interviews were conducted with library staff. The thematic analysis of the qualitative data highlighted several principal themes. The study results suggest the need for creating tailored disaster management policies. It is recommended that international best practices be adapted to the local context. This will guarantee the long-term effectiveness and sustainability of the preparedness strategies implemented. Furthermore, these tailored disaster management policies should weave disaster risk reduction into the fabric of library planning and implement ongoing training programs for staff. This research fills a literature gap and offers practical, evidence-based approaches to making libraries more resilient in areas frequently hit by disasters.

Keywords: Disaster Management, Academic Libraries, University Libraries.

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INTRODUCTION

A disaster is a serious disturbance in a society's functioning caused by environmental factors or human activity. University libraries play a vital role in supporting the educational growth of a region. According to Samea (2015), the "university library is the most important retrieval institution." However, these organizations have been very susceptible to destruction caused by natural and man-made disasters throughout history. Given the risk of disasters, librarians must take security measures to protect their libraries and ensure the continuity of services (Oyeniran, 2023). The Hazara region of Khyber Pakhtunkhwa is particularly prone to earthquakes, floods, and landslides, underscoring the necessity of establishing disaster management practices in university libraries in the region. International studies have highlighted the significance of disaster management in libraries, emphasizing best practices and approaches for mitigating the effects of disasters of any kind (Yazid et al., 2025). Oyeniran (2023) stated that while disaster preparedness plans and regular surveillance are critical, staff training and raising awareness are also equally important. Climate change has further increased the risk of natural disasters, and to address its impact, our professionals must prioritize awareness, training, and support for disaster preparedness. Despite the significant international focus on disaster management, research on Pakistani libraries, particularly those in KPK, remains limited (Shah et al., 2019). This research aims to address this gap in the literature and explore disaster management practices in university libraries in the Hazara region of KPK, Pakistan. Furthermore, the aftermath of the 2005 earthquake in Pakistan has made it even more important to assess Pakistan's disaster management practices. The study will make an important contribution to developing an outline for disaster response and to confirming whether university libraries are prepared and able to handle probable disasters.

Problem Statement

Despite the significance of disaster management for university libraries, there is a shortage of scholarly work on this topic in Pakistan, especially with respect to the disaster-prone Hazara region. This research aims to address this literature gap and deliver real-world approaches for developing disaster resilience in university libraries. "The connection to international disaster risk reduction policies is rarely discussed within academic literature" (Garnett, 2021, p. 12). This research identifies a significant knowledge gap in the level of awareness and preparedness for disasters in this region. Furthermore, Asad and Hussain have suggested that, "there seems to be neither the will nor the initiative on the part of the government to address the situation" (Asad & Hussain, 2014, p. 53). There is a critical need to evaluate the current level of awareness and preparedness among library staff and to develop appropriate safe guiding strategies. It is essential to identify these issues and suggest strategies to improve the resilience and disaster preparedness of university libraries in the Hazara Region to safeguard them against future disasters. By addressing these areas, this study will ultimately contribute to

the literature and will help develop practical strategies for promoting and increasing awareness of disaster management in university libraries.

Research Objectives

1. To define the level of awareness and preparedness about disaster management in university libraries of the Hazara Region.
2. To identify the best safe guiding strategies for university libraries of the Hazara Region.

LITERATURE REVIEW

Disasters have been a persistent danger to societies, organizations, and individuals throughout history. Investigators and library professionals have repeatedly highlighted the necessity of robust disaster management strategies to protect libraries and their collections from damage caused by these disasters (Matthews & Smith, 2016). "Effective disaster management is also the library's responsibility to protect collections that belong to society at large" (Abidin, Kiran, & Samsuddin, 2024). However, only effective collaboration among libraries, government, and non-government organizations can help institutions successfully face disaster threats (Yazid et al., 2025). The literature review is divided into two sections.

Awareness and Preparedness Level Regarding Disaster

Libraries have historically faced many disasters, and they are still at real risk today from different types of natural and man-made disasters. In Pakistan, libraries have dealt with different kinds of disasters, such as floods, earthquakes, and fires. Inadequate preparedness has often worsened the effects of these disasters on libraries and their collections. In recent history, the 2005 earthquake in Kashmir caused significant damage to the region, with a profound effect on the local university libraries. Similarly, the 2010 floods in Pakistan caused nationwide disruption to the library systems, underscoring the need for stronger disaster response planning (Iqbal & Hayat, 2012). Libraries require dynamic collaboration among various professional groups and strong local and national relationships to deal with these emergencies.

The International Federation of Library Associations and Institutions (IFLA), for example, has published detailed strategies on how libraries can plan for disasters (IFLA, 2018). In Pakistan, bodies such as the Higher Education Commission (HEC) and the Pakistan Library Association (PLA) have sought to educate professionals on how to deal with emergencies in academic libraries. However, the implementation of these emergency plans has remained inadequate. This is mainly due to financial constraints, lack of trained staff, and inadequate investment in the right kinds of buildings and infrastructure (Mahmood, 2023). Threats such as theft, vandalism, and cyberattacks also

pose significant risks to library collections, yet many libraries lack adequate security to protect against them (Shah & Rana, 2023). Getting ready for disasters requires proactivity, which means identifying risks, training library staff, and developing emergency plans. Studies have found that libraries in wealthy nations often have thorough disaster management plans. These typically include installing fire detection systems, providing detailed instructions on how to shut off the water supply, and maintaining digital copies of important resources (Matthews & Smith, 2016).

Oyeniran (2023) identified strategies for effective disaster management in university libraries in Nigeria, including developing disaster management plans and conducting regular surveillance to prevent theft and mutilation of library books. Santiago-Gómez and Rodríguez-Rodríguez (2023) pointed out that people often do not take care of fire safety equipment like they should, which makes it less effective. Landesman (2005) highlighted that having a fully equipped emergency kit not only reduces the health dangers but also boosts staff efficiency during evacuations. Along the same lines, Kahn (2012) stated that distributing several emergency kits across library buildings significantly increased staff readiness. Research (Ilo et al., 2019) indicates that universities that conduct regular emergency drills for library personnel have employees who feel more assured in their capacity to handle crises. Dawson and Patel (2018) found that libraries with current emergency contact lists reacted much more quickly in emergencies than those without such lists.

Landesman (2005) showed that places that regularly refresh their emergency plans are better at handling new and changing dangers. Problems with wiring are a frequent culprit behind library fires. Oketch and Wamae (2021) found that when staff knew where the electrical controls were, the chance of fires was reduced. A study conducted by Pierard et al. (2016) reported that libraries without these disaster preparedness strategies had a much more difficult time returning to their work after a disaster. Furthermore, libraries with specific disaster readiness policies suffer fewer losses. McAvoy and O'Connor (2022) found that when staff attended disaster management workshops, their skills and ability to respond to crisis recovery were much improved.

Safe Guiding Strategies

University libraries are very passionate about protecting knowledge and ensuring that scholars can access important academic materials. Johnson et al. (2023) pointed out that regular building check-ups are important to avoid major mechanical issues. It is also essential to train library staff on how to handle emergencies. Henderson (2020) stressed the need for training programs focused on understanding risks, evacuation procedures, and recovery after a disaster. Kumar and Singh (2021) have emphasized that a well-organized plan can make disaster response much more efficient and minimize losses.

Williams, Patel, and Green (2019) advise regularly backing up data and using encryption to keep digital assets safe. Surveillance technology is important for keeping library materials safe from thieves, vandals, and unauthorized individuals. A study by Westenkirchner (2008) found that CCTV surveillance and other electronic security systems deter criminals and make the library safer overall.

Anday et al. (2012) suggest that adding features such as biometric access panels and alarm systems can make security even tougher. Things like pests and mold, which are biological hazards, can also cause damage to a library's collection. To keep books and digital equipment in good condition, it is essential to regularly disinfect and maintain a clean environment. Abd El-Aziz (2011) provides guidance on performing regular pest control and maintaining a stable humidity level to stop plagues and the natural breakdown of materials. Digital libraries face real threats from online threats such as malware, hacking, and data breaches. That is why it is essential to have robust cybersecurity measures in place to safeguard sensitive information. Mendez (2021) mentioned that using firewalls, antivirus software, and encryption is vital. Phillips and Mincin (2023) have also highlighted the importance of keeping software up to date and training library staff in cybersecurity awareness.

Regularly checking for vulnerabilities is crucial for libraries to identify potential risks and put in place plans to reduce them. Phillips, Neal, and Webb (2021) suggested using security staff, book-detection systems, and RFID tags to enhance the defense of library resources. Patrick et al. (2020) pressed for building a culture in which library users feel accountable and conscious to prevent books from being deliberately damaged. Since university libraries are still dealing with problems like book theft and damage, having strong security measures in place can truly help combat these problems.

Significance of the Study

This research has assessed the current disaster preparedness level in academic libraries of the Hazara Region, highlighting areas where awareness and preparedness are lacking. This will help universities in the region prioritize areas for improvement. Based on the results, the research has proposed practical, effective disaster management strategies adapted to the specific needs of the Hazara region. The study also provides recommendations for university administrators, policymakers, and disaster management professionals to improve university libraries' resilience. These recommendations are based upon both international best practices and local knowledge, ensuring their relevance and applicability to the Hazara region.

METHODOLOGY

This research study employed a qualitative investigation approach, which was considered appropriate for exploring the multifaceted and context-dependent nature of disaster management in university libraries. The population of this study comprised the university library staff of the Hazara region. A purposive sampling method was used to select 15 library staff members from the five universities present in the region. The sample size was determined by data saturation, which was achieved after conducting 12 interviews. Though we continued to conduct interviews with the remaining participants to ensure that no new themes emerged. There are five universities in the Hazara region. To achieve 100% representation of the sample, data were collected from all these universities. The data analysis was done using thematic analysis, which involved coding, categorizing, and identifying patterns and themes in the data. We used the manual thematic analysis process. The steps followed in developing themes and sub-themes were: data familiarization, coding, identifying themes, reviewing themes, and refining themes.

Data Analysis

The demographic details in Table 1 clearly depict that out of the 15 participants, only two were female, while 13 were male. This gender distribution shows that there are more male library professionals than female library professionals in the region. Furthermore, regarding the age of the study participants, it clearly shows that the majority were senior library professionals.

Awareness and Preparedness Level about Disaster Management

Using a qualitative approach, participants in the Hazara Region were asked questions about awareness and preparedness. Figure 1 below, is a detailed analysis of each question, along with subthemes and accurate quotes from participants.

Table 1

Demographic Details of Respondents

Sr. no	Codes	Gender	Age	University/ Institute	Designation
PI	DI	M	47	Hazara University, Mansehra	Deputy Librarian
P2	MS	M	49	Hazara University, Mansehra	Library Supervisor
P3	MN	M	46	Hazara University, Mansehra	Library Supervisor
P4	SJ	M	58	Abbottabad University of Science and Technology	Library in charge
P5	FA	M	38	Abbottabad University of Science and Technology	Library Supervisor
P6	MK	M	59	University of Haripur	Deputy Librarian
P7	MA	M	36	University of Haripur	Computer Technician
P8	TA	M	40	University of Haripur	Cataloger
P9	ZB	F	36	University of Haripur	Cataloger
P10	DS	M	44	Pakistan Austria Institute of Applied Sciences and Technology	Chief Librarian
P11	SU	M	34	Pakistan Austria Institute of Applied Sciences and Technology	Assistant Librarian
P12	MI	M	35	Pakistan Austria Institute of Applied Sciences and Technology	Assistant Supervisor
P13	NUD	M	51	COMSATS Abbottabad	Deputy Librarian
P14	ZK	F	33	COMSATS Abbottabad	Assistant Librarian
P15	MK	M	35	COMSATS Abbottabad	Library Assistant

Figure 1

Disaster Management Awareness and Preparedness Level
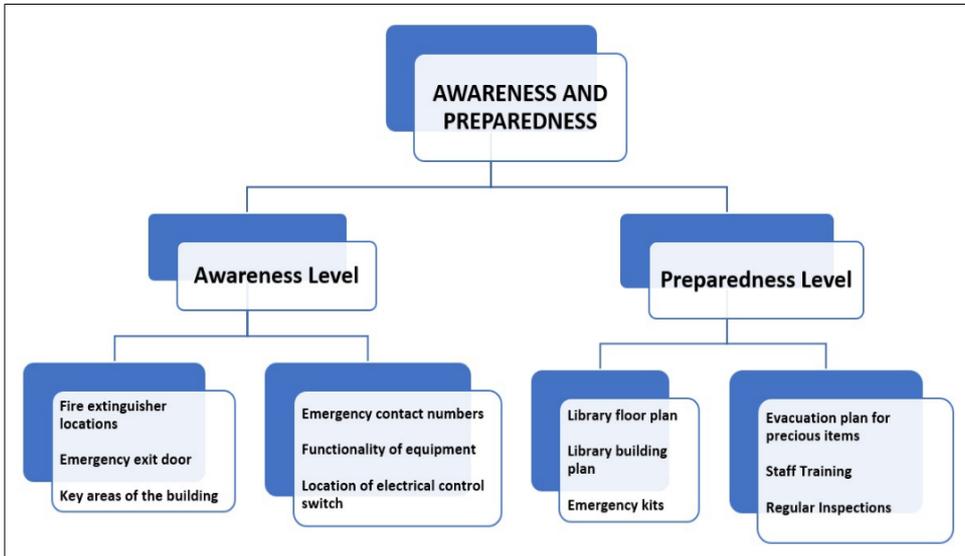
Awareness Level

This theme examines how well library staff and users know emergency procedures, where equipment is kept, and the safety protocols in place in the library. Being well prepared for emergencies comes down to how aware people are, how easy it is to find safety equipment, and how often they have regular drills or briefings. The participants expressed concerns across several areas, including the location of the fire extinguisher, emergency exit doors, key areas of the building, emergency contact numbers, functionality of equipment, and the location of electrical control switches. The participants' responses for these subthemes are mentioned below. The participants voiced worries about how hard it is to find and use fire safety equipment:

P7 (MA) pointed out, *"Emergency exits are meant to be marked with signs and lights, but sadly, that's usually not the case."* P2 (MS) elaborated, *"They're either completely missing or nearly impossible to see. A lot of our staff wouldn't know where to look for fire extinguishers, and there are no signs to show the way."* P12 (MI) added*, "Yes, we do have fire extinguishers, but they've probably been gathering dust forever. I wouldn't be surprised if they were useless."* P11(SU) mentioned, *"Honestly, most students are clueless about where the emergency exits are. They just use the main entrance all the time, even during fire drills."* P14 (ZK) explained, *"Some of our fire extinguishers are practically hidden behind bookshelves or in these hard-to-reach places. If a real emergency broke*

out, actually getting to them quickly would be a total pain." P7 (MA) added, "Our emergency gear, things like smoke detectors and fire alarms, haven't been checked in ages. For all we know, they might not even work."

Moreover, Participants frequently pointed out that exits were often blocked, essential emergency supplies were missing, and the location of the electrical control switch was not visible. P3 (MN) commented, "We've noticed that the emergency exit close to our reading room is constantly blocked by stacks of books and some damaged chairs." P8 (TA) elaborated, "There was an instance when we attempted to use an exit door during a practice drill, and it was locked. P6 (MK) remarked, "We've mentioned the problem of clutter around emergency exits in our staff meetings numerous times, but unfortunately, nothing has been done about it yet." P9 (ZB) explained, "If there were a real emergency, getting out would be a real struggle. Leaving doors are often congested by furniture and other clutter." P14 (ZK) pointed out, "We're also lost basic safety equipment, like flashlights and emergency tools. If the power went out, we'd be left-handed in total darkness." P5, (FA) added, "Even modest things like extra batteries, first aid kits, or loudspeakers are nowhere to be found. There's truly no preparation for even a brief power outage."

The Participants also pointed out that the staff were not well-versed about the building's layout or emergency procedures. For example, P5 (FA) mentioned, "A ratio of us who work in the library aren't that aware of the building, especially when it comes to finding important papers." P10 (DS) pointed out, "In a perfect world, the staff should be conscious of which parts of the library are most at risk during events like fires or floods, but we haven't been given any proper directions about that." P12 (MI) added, "We've not ever really had any kind of disaster readiness training, not even for new staff." P9 (ZB) pointed out that "since they do not hold even drills or training, most people would be at harm if a real emergency were to happen. They would only not know how to respond." P4 (SJ) explained, "The library staff does not have a specific emergency coordinator. Because of this, it is not clear who would take charge and lead the way if a crisis happened."

People felt that getting hold of emergency contacts in a crisis was difficult. P2 (MS) mentioned, "Right now, only a couple of managers can actually get into the emergency contact list. But honestly, everyone should be able to access it easily, without any hassle." P15 (MK) added, "When a major crisis happens, people panic and waste valuable time trying to find the right phone numbers." P8 (TA) pointed out, "If we just had an emergency contact list that was readily available for everyone to see, it would make a huge difference." P5 (FA) explained, "That list is kept in an office, and if that person isn't there, we can't do anything." P11 (SU) added, "Even the student helpers don't know who to contact in an emergency. They just have to wait for a staff member to arrive." P6 (MK) suggested, "We should have a laminated chart with emergency contact information in every major area of the library."

Preparedness Level

The preparedness level describes how well library institutions have established, rehearsed, and maintained the necessary protocols, training, and resources to respond to

emergencies or disasters. This includes staff training, availability of emergency equipment, building information, and plans to preserve important assets. Data collected from the interview responses show a notable difference between ideal preparedness standards and actual practices in university libraries.

Many library employees mentioned that emergency training and drills were not regularly conducted. They stressed that this lack of adequate preparation could result in disorder and increased risk in a real emergency. P6 (MK) commented, "*We don't receive much training for emergencies.*" P10 (DS) admitted, *"To tell the truth, if we had a fire or a flood, most of us wouldn't have a clue what to do."* P12 (MI) elaborated, *"In a perfect world, we would receive regular training on disaster response, so everyone would be clear on the correct procedures. But that's not how it is here."* P4 (SJ) shared, *"The last safety inspection we had was just a box-ticking exercise; they didn't look into things properly."* P2 (MS) mentioned, *"We did have even one training session a couple of years ago, but since then, we haven't had any follow-up courses to refresh our memories."* P7 (MA) added, *"No simulations, no drills—we've just been told to 'stay calm,' but there's no real structure or plan communicated to us."*

Study participants noted that many people are unaware of crucial infrastructure details, such as building blueprints and utility shutoff locations. This knowledge gap can cause significant confusion and slow down response times when emergencies strike. P9 (ZB) put it this way, *"Only a couple of employees know where the building layout is kept; visitors and students probably wouldn't even realize it exists."* P2 (MS) shared a recent example, *"In a recent emergency, it was clear that almost nobody knew where the electrical circuits and water shutoff valves were. The lack of this information just made the whole situation more confusing and difficult to handle."* P3 (MN) emphasized, *"It's vital for every staff member to have access to a complete building plan, particularly those who might be responsible for managing emergencies."* P8 (TA) mentioned, *"You'd think items like flashlights, fire blankets, and first aid kits would be standard, but unfortunately, we're lacking in that basic emergency gear."* P13 (NUD) explained, *"Having a floor plan that shows all the emergency exits would make evacuation so much smoother during a crisis. It's just too bad we don't have something like that set up right now."* P5 (FA) chimed in, *"There are some places that are locked or off-limits during emergencies because we don't have master keys or any maps. It's a serious gamble."*

Participants expressed deep concern about inadequate safeguards and contingency plans for valuable, irreplaceable materials during emergencies. P11 (SU) observed, *"Certain books are placed right beneath dripping pipes. This clearly demonstrates the lack of consideration given to safeguarding these precious resources."* P6 (MK) remarked, *"There's neither fire-resistant storage nor waterproof containers for documents—everything is vulnerable."* P12 (MI) further noted, *"Even digital files lack proper off-site backups. A single catastrophe could erase years of effort.*" P5 (FA) stated, *"In the event of an emergency, we don't have a solid plan to evacuate our valuable, rare books and crucial research materials safely."* P14 (ZK) pointed out, *"Our vitally important documents are just sitting there, vulnerable to fire and water damage. Consequently, a disaster could mean their complete loss."* P8 (TA) elaborated,

"Ideally, we should have a prioritized plan for rapid rescue. But realistically, if an emergency hit, we'd be at a loss for what to save first."

It was pretty common for libraries to be missing basic emergency kits and supplies, making them ripe for even the smallest accidents. P1 (DI) commented, *"Honestly, our library is totally unequipped when it comes to emergency kits. So if anyone gets hurt, we're pretty much out of luck as far as immediate first aid goes."* P3 (MN) mentioned, *"We really ought to have basic emergency stuff, like flashlights, fire blankets, and first aid kits, but unfortunately, we're completely stocked out."* P12 (MI) said, *"We're completely unprepared for emergencies. We don't even have a basic first aid kit or emergency supply cabinet. If a medical emergency or a disaster happened, we'd be totally helpless."* P6 (MK) chimed in, *"Yeah, even basic emergency tools like whistles or a megaphone to direct people are completely missing from our library. We don't have any resources to guide people."* P10 (DS) agreed, *"It's dangerous that we don't have any backup batteries, torches, or sanitation supplies. If we were stuck here during an emergency, we'd be in serious trouble."* P9 (ZB) pointed out, *"If the power went out, we'd be in total darkness because we don't have any emergency flashlights or backup lights."*

Safe Guiding Strategies

Safe guiding strategies for disaster management in university libraries in the Hazara region, along with relevant sub-themes, have been tailored to address the specific weaknesses uncovered in these libraries – things like inadequate preparation, fragile infrastructure, and lack of strong policies. The main themes that emerged under this question were training, inspection, digital setup, and budget. The subthemes that emerged under these themes are shown in Figure 2.

Trainings

Training forms the foundation of any effective disaster management plan. In the libraries investigated in this study, the lack of adequate training stood out as a significant weakness. This theme highlights aspects of training that are not covered or are provided insufficiently. It underscores how crucial it is to be prepared before disasters strike. Furthermore, it highlights the areas where training is required, such as regular staff training, mitigation training, evacuation training, and emergency need-based training whenever required. The participants pointed out that training focused on prevention is vital for preventing, or at least decreasing, damage down the line. P7 (MA) pointed out, *"That simply reacting is not enough; we need to be actively training ahead of time."* P11 (MS) elaborated, *"Saying that staff require skills that will allow them to reduce risks beforehand."* P7 (MA) added, *"That routine maintenance can be woven into safety procedures."* P4 (SJ) further explained, *"That a strong understanding of potential risks allows for better preparation and quicker responses."* P6 (MK) commented*: "We should shape our local training based on the mistakes others have made."* P3 (MN) pointed out, *"When there isn't enough training, it can cause people to skip over important safety checks."*

Figure 2

Safe Guiding Strategies for Disaster Management
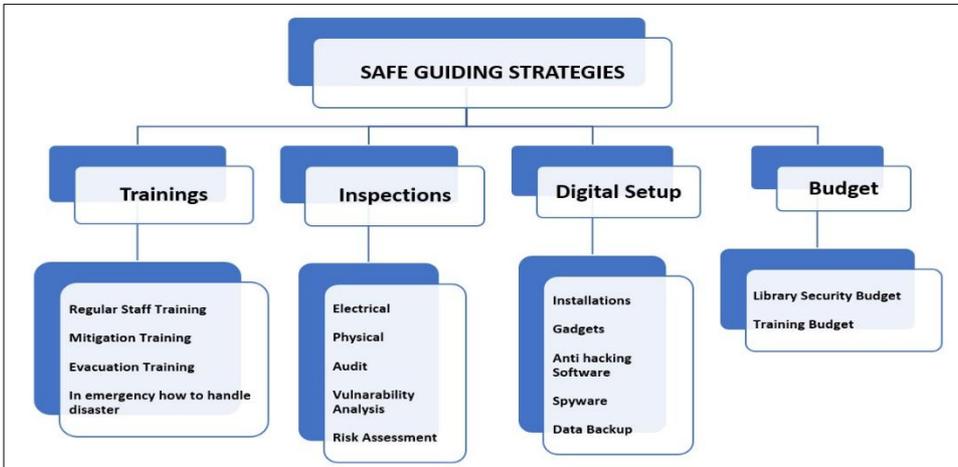
University libraries also lack clear evacuation plans and drills, which leads to confusion during emergencies. Participants emphasized that without well-rehearsed procedures, chaos and risk increase dramatically. P1 (DI) stated, *"That staff are unsure how to safely evacuate people during emergencies*." P15 (MK) explained*, "That drills save not only lives but also help preserve materials."* P13 (NUD) mentioned*, "That the lack of guidance creates panic and confusion."* P6 (MK) explained*: "Getting confused costs time, and that time can be both expensive and risky."* P9 (ZB) noted: *"Knowing the layout of the building inside and out is absolutely vital when emergencies pop up."* P3 (MN) explained: *"It seems like there is a real problem with how visible the evacuation plans are, and people are not practicing them nearly enough."* P9 (ZB) mentioned, *"When people do not have the right skills, it makes us more vulnerable when a crisis hits."* P6 (MK) pointed out, *"that we need training that is specific to different situations, like fires or floods, for example."* P3 (MN) explained, *"That when we are not prepared enough, it could actually affect people's safety."* P11 (MS) made a note: *"Being ready for emergencies takes more than just knowing what to do; it requires having the right systems in place."* P7 (MA) mentioned: *"It's easy to feel like you're falling short when you see how well-prepared everyone else seems to be."* P13 (NUD) stated: *"Even the most basic health and safety precautions aren't being taken care of."*

Inspections

Protective measures and routine check-ups should be standard. Close examinations are crucial for spotting and reducing physical and structural hazards in academic libraries. With respect to the Hazara region, those interviewed stressed that a

lack of frequent check-ups has resulted in ignored risks, such as derelict furniture, old wiring, and emergency equipment that is not looked after. These failings can make libraries much more vulnerable when disasters strike. This subject is split into five main smaller themes, such as electrical, physical, audit, vulnerability analysis, and risk assessment. Overall, this theme centers on the lack of a standardized system for conducting regular safety checks in the library areas. P7 (MA) shared, *"hazards are typically only recognized after accidents occur,"* and explained further, *"One of our bookshelves is shaky, and most of the time we don't even realize there's an issue until it just falls over."* P6 (MK) elaborated, *"There is no organized method for identifying threats in advance."* P4 (SJ) observed, *"That routine inspections could help avoid unexpected incidents.* P3 (MN) Observed: *Neglected furniture can pose safety risks. "The library's furniture is showing its age, and it doesn't appear that anyone is regularly checking up on it to ensure it's still safe to use."* P6 (MK) shared: *Lack of inspection has already caused preventable losses. "We've had computers damaged by power surges in the past. If we were more diligent about electrical maintenance, we could likely prevent these kinds of problems."* P13 (NUD) suggested: *Infrastructure assessments are currently missing. "We need a better system in place for identifying the building's vulnerabilities, like leaky roofs and unstable infrastructure."*

It was highlighted that there was a lack of proper maintenance or even total neglect of emergency tools and equipment. Participants stressed the importance of regular checks to guarantee that everything is ready for emergencies. P1 (DI) pointed out, *"We don't really have a set way to check if emergency equipment, like fire extinguishers, is actually working,"* which they simplified to: *There's no system to ensure emergency tools are working."* P15 (MK) recommended, *"We should do regular checks of our valuable books to make sure none are lost or stolen,"* and summarized this as: *Loss prevention should include catalog checks."* P9 (ZB) observed, *"Some of our safety items are just gathering dust. We have no idea if they even work anymore,"* which they encapsulated as: *Neglect renders safety tools unreliable."* P11 (MS) explained: *"The lack of a designated person means that the maintenance of safety equipment is neglected. We don't have anyone specifically in charge of maintaining safety equipment, so no one takes responsibility."* P4 (SJ) raised concern that *"there is a risk that safety technology might not work when it is needed most. "Emergency lighting and alarms have not been tested in ages. What if they fail during a disaster?"* P3 (MN) highlighted: *There is also a lack of documentation for equipment checks. "Without maintenance logs, we can't track whether equipment has been checked or repaired."*

The participants also highlighted risks associated with electrical systems and the failure to conduct vulnerability and risk assessments. P9 (ZB) acknowledged: *Electrical concerns are frequently disregarded until it is past the point of no return. "Honestly, we do not give the wiring a second thought until a problem arises. Yet, if we had a regular inspection routine, we could probably avoid a lot of these electrical glitches."* P1 (DI) stated: *No forward-thinking evaluations of possible dangers. "We don't gauge how exposed the library is to events like floods or fires. If we carried out a vulnerability assessment, we'd be better equipped to handle them."* P3 (MN) cautioned: *Aging infrastructure is a disaster in the making. "Certain wiring in our library is fairly ancient. If we don't start implementing routine inspections shortly, we're bound to encounter*

some serious electrical hazards." P11 (MS) explained, *"Preventative checks are important and could avoid big problems." "Regularly checking for weak spots would let us handle problems while they're still small, instead of waiting for them to become full-blown emergencies,"* P4 (SJ) explained, *"we are skipping basic safety steps." "We could prevent fires by doing something as easy as checking our plugs and sockets, but we're just not doing it,"* P15 (MK) suggested, *"we are lacking expert analysis of our risks." "We should get experts to assess our risks properly. At the moment, it's all just guesswork."*

Digital Setup

Protecting digital resources involves setting up defenses and covers. It encompasses the steps and tools required to keep digital materials safe, making sure information can be easily accessed, and guarding against loss of data and online dangers in the Hazara Region. Participants involved in the discussion pointed out a number of digital weaknesses, such as outdated systems and online security risks, that stop libraries from working effectively and put important information at risk. The subthemes that emerged under this main theme were gadgets, installation, anti-hacking software, spyware, and data setups.

Overall, this theme underscores the urgency of technological advancements. P9 (ZB) elaborated that the *"current digital infrastructure is insufficient for meeting today's educational requirements." "Our library is in dire need of contemporary digital amenities."* P11 (MS) remarked, *"The computers are utterly outdated, and the internet speed is excruciatingly slow, creating obstacles for students in their research endeavors."* P3 (MN) explained how the scarcity of equipment is negatively affecting students' ability to be productive. *"We are simply short of a sufficient number of operational printers and computers. This deficit is presenting challenges for students as they attempt to finish their assignments."* P6 (MK) stated: Not having the right tools is keeping us from saving resources digitally. *"We need to get our hands on some better scanning and digitization tools."* P15 (MK) suggested *"putting these books online could help keep them safe." "We have to protect our rare books, and it would be amazing to have digital versions online too."* P13 (NUD) said, *"These old programs are slowing things down and making it hard for people to get what they need. "A lot of the software programs we're using are way out of date. They can't handle the newer formats or features that researchers need."*

Participants expressed significant concerns about cyber threats and noted the lack of sufficient safeguards for digital systems. This deficiency exposes sensitive library data to potential breaches and improper use. P7 (MA) reported, *"We were hacked and lost some important data. We still do not have strong enough online security."* P11 (MS) warned, *"We do not have good anti-hacking or spyware software on our computers, so we are at risk of being attacked online."* (P4 (SJ) recommended, *"We need better firewalls and security software to stop people from getting into our library resources without permission."* P3 (MN) explained, *"It is simpler to say that easy access means it is simpler* for unauthorized users to gain access." *"Since our library's Wi-Fi is wide open and simple to connect to, it's pretty easy for people who shouldn't be on it to hop on."* P1 (DI) observed: *"It is more natural to say that neither the staff nor users*

have been taught about the risks of cybersecurity." "Nobody's shown us how to spot phishing attempts or other online dangers. It seems like neither the staff nor the library users know much about these kinds of risks." P6 (MK) explained: *It's more conversational to say that every institution handling data needs a cybersecurity policy, but this one does not have one." "Any place that deals with a lot of data, as we do, should have rules in place for cybersecurity. The Problem is, we don't have anything like that."*

Data Backup and Protection were the important points highlighted on the lack of data redundancy and safeguards. Participants recounted instances of data loss stemming from inadequate backup systems and advised adopting more robust solutions. P1 (DI) shared*, "Sadly, we lost some crucial research papers. Our system went down, and we didn't have any backups."* P15 (MK) suggested, *"If we used cloud-based backups, it would be much simpler to get our data back if we were ever hacked or if our hardware failed."* P13 (NUD) explained*, "Right now, we're just keeping our data on our local computers without any backup plan. This is a huge risk for us."* P9 (ZB) noted: *"Honestly, just backing up to external hard drives regularly would be a huge improvement over our current situation, where we're essentially doing nothing."* P11 (MS) recommended: *"What we need is a central system for managing data. This system should be able to automatically back up crucial files and store them securely."* P4 (SJ) highlighted *"Having a proper digital archiving strategy in place would significantly reduce our concerns about potentially losing critical research or student records."*

Budget

Protecting university libraries involves careful financial planning and using resources wisely. In the Hazara region, the absence of a specific budget for handling emergencies significantly hinders libraries. They struggle to train their staff, keep their buildings in good shape, update their digital technology, and put strong security measures in place. These money problems do not just lower their readiness; they also make libraries more susceptible to urgent situations, theft, online attacks, and building damage. The library security and training budgets have emerged as sub-themes under this theme.

This theme highlights how tight budgets are stopping libraries from giving their staff the vital training they need in disaster preparedness and digital safety. Without this training, libraries are at risk when emergencies hit. P7 (MA) explained, *"money issues are directly affecting how prepared our staff can be. "We're well aware of how important it is for our team to get regular disaster preparedness training, but frankly, we just can't afford to do it right now."* P11 (MS) explained: *"We really need a specific budget set aside so we can train our staff in online security, emergency readiness, and how to protect library materials during hard times."* P4 (SJ) stated, *"Not investing in training is leaving our staff unprepared for real-life emergencies. "Because we're not getting the financial support we need for training, our staff isn't fully equipped to deal with unexpected emergencies."* P1 (DI) noted: *A lack of funds is holding back professional development. "Sometimes we have to depend on old information or our own past experiences because there's no money to go to workshops or take online classes."* P3 (MN) mentioned: *"The team is struggling to keep pace with evolving methods and technology due to budget constraints.*

"We can't keep up with new ways of commerce with disasters or keep up with new digital tools without drill programs that are included in the budget." P13 (NUD) stated: *"Critical emergency training is not being provided due to financial limits. "Basic training, like first aid or fire safety, doesn't even exist—purely because there are no funds assigned for it."*

Consequences of not offering funds specifically for library security include high susceptibility to theft, vandalism, and other threats. P9 (ZB) pointed out, *"The Security substructure is unnoticed due to the lack of a budget. "Since we don't have an exact budget assigned for library security, it's difficult to afford things like security cameras or to hire security protectors."* P6 (MK) described the situation as, *"Instances happen but are not addressed due to financial constraints. "We've experienced several thefts, but unluckily, there's still no money allocated to improve the library's security system."* P3 (MN) observed: The library is missing important protective measures. *"Due to unsatisfactory funding, our library isn't prepared with decent alarm systems or satisfactory security checkpoints."* P15 (MK) pointed out: "Plans to increase security are being held back due to money issues. *"We're hopeful to put in some surveillance cameras, particularly around our valuable books and expensive tech, but we just can't get the funds permitted."* P4 (SJ) stated: Risky spots are not being addressed because there is no economic incentive for it." *There are areas in our library that are softly lit and off the compressed path—perfect for someone to get up to no good—but we don't have the money to enhance them or keep an eye on them."* P11 (MS) explained: *"Ignoring security fears is leaving us unprotected. People just don't seem to think safety is something we should spend money on, and it's putting our junk and our clients in a tricky spot."*

FINDINGS AND DISCUSSION

The Hazara region of Pakistan frequently faces natural disasters, such as earthquakes and floods. The 2005 earthquake, which killed many and caused widespread destruction in the region, exposed major shortcomings in the region's disaster preparedness. Since then, several efforts have been launched to improve disaster consciousness and readiness in the region. There have various initiatives from government bodies, non-governmental organizations, and local public groups. However, the results of this study do not show a hopeful situation. The data analysis indicates that emergency response in libraries lacks effectiveness and efficiency, and disaster management plans are still not up to the mark.

The National Disaster Management Authority (NDMA) has been actively promoting Community-Based Disaster Risk Management (CBDRM) programs. The goal is to authorize local communities to better prepare for and respond to disasters. This includes increasing awareness, setting up early notice systems, developing evacuation plans, gathering resources, and holding regular training sessions for community leaders and members. Studies show that CBDRM initiatives are important in boosting a community's flexibility and readiness in areas frequently hit by disasters (Shah et al., 2019). However, a study by Bollin et al. (2003) have reported that even with extensive

community help, many local communities still do not have the required expertise or provisions to handle disasters on their own. The Provincial Disaster Management Authority (PDMA) in Khyber Pakhtunkhwa (KP) has been a key player in determining how the province prepares for and responds to floods and disasters (Ibrahim et al., 2024). They have developed procedures to create an organized way to handle emergencies, ensuring help arrives quickly and is real. Even so, there are still some big hurdles to overcome, such as not always following through on these plans as envisioned or not having enough money to fully implement them (Khan et al., 2020). Research shows that when there is a lack of investment in reducing disaster risks, we end up reacting to disasters rather than being prepared for them. This makes the disaster-prone places more vulnerable to damage (Shah et al., 2019).

Communities where more people can read and write and get information easily tend to be more proactive about reducing disaster risks (Shah et al., 2023). Plus, there are differences between men and women when it comes to disaster awareness and being prepared, with women and marginalized groups often having a harder time participating in preparedness activities (Gaillard et al., 2017). Governmental bodies, non-profit groups, and local communities must work together to effectively prepare for disasters (Antonelli et al., 2025). The research results highlight that in order to combat disasters effectively, there is a need to focus on four main areas: training people, building robust digital systems, setting aside enough money, and checking things regularly. These things are crucial for reducing the impact of disasters, responding quickly, and making our communities stronger. Practicing disaster scenarios helps everyone work together better and be better prepared for an actual emergency. Teaching people first aid, how to evacuate safely, and how to communicate during a crisis makes our communities more resilient (Kahn, 2012). Digital tools such as Geographic Information Systems (GIS), Artificial Intelligence (AI), and real-time data analytics help us keep a closer eye on disasters and predict them better (Emami & Marzban, 2023). Regular safety checks are crucial for meeting disaster readiness benchmarks, as noted by Shah and colleagues in 2019. Examining building structures, escape paths, and emergency tools all contribute to a higher state of readiness (Ahmed, 2024).

To tackle these hurdles, those in charge of policy and disaster management need to adopt a comprehensive, unified approach. By working together to overcome these obstacles, passing new policies, and making solid financial pledges, regions frequently hit by disasters can become much more resilient, reduce the losses caused by these events, and make communities safer in case of future crises.

CONCLUSION

This study aimed to investigate how university libraries in the Hazara region of Khyber Pakhtunkhwa, Pakistan, handle disasters. The main question driving this research was: To what extent are university libraries in the Hazara region ready to deal with

disasters? The goals were to evaluate their current state of readiness. This research examined how they assess risks, how they train their staff, how robust their physical infrastructure is, how strong their digital security is, and what their financial plans are for emergencies. The study shows significant gaps in libraries' readiness for disasters. It was found that many libraries are not well prepared with good emergency plans. Often, the staff did not even know basic safety procedures or where important equipment was kept. On top of that, many library buildings are not built to withstand earthquakes or floods, and they have outdated safety equipment. In addition, with budgets so constrained, libraries struggle to afford essential safety preparedness elements, such as insurance, data protection measures, and modern security systems.

Considering these results, there are some important takeaways for how universities operate, the policies they create, and the research that still needs to be done. University leaders and policymakers need to make disaster preparedness a priority in their plans. They need to allocate specific funds for this purpose, so that libraries can remain safe and quickly recover their functionality in the event of a disaster. Libraries themselves should use common disaster planning methods, hold regular practice drills, and invest in their physical and digital infrastructure.

RECOMMENDATIONS

The findings of this research have important implications for policy and practice. University supervisors and policymakers should prioritize disaster management practices in university libraries, including improving disaster management plans, training staff, and reinforcing infrastructure. Given the results of this study, it is critical that we focus on robust disaster preparedness and response right away. We recommend that there is an immediate need to: 1) Develop a disaster management plan for university libraries in the Hazara region. 2) Deliver training for library staff on disaster response and recovery. 3) Organize regular drills and training to test the disaster management plan. Furthermore, some long-term recommendations should also be implemented, such as 1) Strengthen the infrastructure of university libraries to make them more resistant to disasters. 2) Create a digital archive of library collections to ensure their preservation in the event of a disaster. 3) Create partnerships with native authorities and emergency services to improve disaster response and retrieval efforts.

FUTURE DIRECTION

Further research should be conducted on the nature of practical training that should be offered to staff with respect to disaster management. Comparative analyses can be conducted, such as of disaster management practices in developed and underdeveloped areas, as well as of security systems offered by the government and private organizations.

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