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## **Libraries in the crisis**

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# Academic and special libraries in Croatia and their crisis preparedness: a survey

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## Abstract

**Purpose.** This research aimed to assess the state of crisis preparedness, management, and the potentials of crisis response in academic and special libraries in Croatia. The majority of academic and special libraries in Croatia are not a standalone institution: they are an integral part of other institutions or organisations, making their freedom in establishing crisis management actions limited. These libraries are specific in their organization, users and collections, and a significant part of them holds valuable heritage collections of old and rare library materials.

**Methodology.** Data was collected through an online questionnaire that was sent to all Croatian academic and special libraries. The questionnaire included questions about risk assessment, the state of crisis management, current experience, and education of the staff, as well as the levels of crisis preparedness and that of crisis occurrences. Since a significant percentage of Croatian academic and special libraries is located in Zagreb, emphasis was laid on recent disasters (earthquakes and floods in 2020) and the way the libraries responded to them.

**Results.** The results have shown considerable discrepancies in the equipment, conditions, and the crisis mitigation capacities among the surveyed libraries. They have shed light on the frequency of crisis situations and the ways libraries cope with them.

**Originality.** The research contributes to the development of preservation of library materials by bringing new insights into crisis management in academic and special libraries in Croatia. The collected data will serve as a good basis for planning and organising collective education and targeted actions in improving heritage preservation at risk.

**KEYWORDS:** academic libraries, cooperation, crisis preparedness, crisis response, heritage collections, special libraries

## 1. Introduction

One of the key features of a heritage institution is collection preservation. Safeguarding collections implies caring for the specific needs of collection items, providing adequate surroundings for maintaining its function and slowing down the degradation processes imminent to ageing. Although the current technological advancements give us possibilities in modelling preservation methods and actions that had been unimaginable before, the majority of heritage institutions collect and store items of such diversity and needs, counting in thousands, making it impossible to address them all. For most heritage institutions, it is challenging to organize regular collection preservation while keeping all the components in balance, let alone at times of crises.

In the last few decades, following great heritage losses due to natural or man-made disasters, the awareness of the importance of risk and crisis management in heritage institutions has been increasing, resulting in an abundance of publications, congresses, lectures and seminars. Still, in practice, many heritage institutions are lacking funds, infrastructure or staff to implement best practices in care and damage prevention in their collections. Even when willing to do something, they do not know where to start. Libraries are no exception.

The motivation for the research was the year 2020, which was challenging on a global scale. With the Covid-19 pandemic, the world was facing economic, political and other turbulence. Amidst all of it, Croatia was struck by several natural disasters, earthquakes, floods and extreme weather. The year 2020 reminded us once again that no place in the world is immune to a natural disaster. Having the experience in dealing with heritage protection in crisis during the War for Independence in the 1990s, this research had in mind to find out if previous lessons have been learned.

## 2. Literature review

Crisis preparedness in libraries as a topic in research has had an evident increase in the last two decades. Looking at crisis management as a whole, the focus shifted from crisis recovery to that of preparedness and prevention. It has become evident that proper preparedness leads to a decrease in damage when crisis situations occur. In this abundance of literature, crisis preparedness planning is rarely positioned in the context of library material preservation. This is partly because disasters in libraries influence not only their collections, but also their users, employees, buildings, equipment and systems (Eden and Matthews 1996).

Standards based on extensive research in the care and protection of heritage in libraries are well-established (Petherbridge 1987; Boston 1998; Balloffet and Hille 2005; Zerek 2014). General guidelines for care and protection of library materials were published by IFLA in 1998 (Adcock 1998), followed by numerous ISO standards regarding specific aspects of library material preservation (ISO 14416:2003, ISO 16245:2009, BS EN 15757:2010, ISO 18934:2011, ISO11799:2015). Since one of the basic preservation concerns in a heritage institution is having a crisis preparedness and recovery plan (Larsen and Silverman 1991, 240-244), the need for practical guidelines in organizing preservation management in crisis situations was met by the IFLA which published its short manual in 2006 (McIlwaine 2006). UNESCO followed with its straightforward “Managing Disaster Risks for World Heritage” manual in 2010 giving practical advice about organizing crisis management in heritage surroundings. However, having quality guidelines is not the same as implementing them.

In the attempt to research the implementation of various standards regarding collection preservation in libraries, a survey was done by the IFLA in 2016, resulting in a catalogue of standards, guidelines and best practices that are most often implemented in the surveyed institutions (Niet et al. 2016). While informative on the implementation of standards and protocols in libraries around the world, as well as the percentage of libraries having a written crisis preparedness plan (a high 59% of the surveyed libraries affirmed having one), the limitation of this survey was that the national libraries in financially prosperous Western countries accounted for the biggest portion of the sample leaving us with no information on how the problems with disaster preparedness are tackled in smaller libraries.

Using a similar methodology as the IFLA, recent research on crisis preparedness in libraries was done around the world using different samples and varying the location coverage. Here one has to differentiate between the research on the preparedness of libraries for the purpose of minimizing collection damage or loss, and the research done on crisis recovery in libraries after a certain type of disaster has already struck the surveyed institutions. The latter always increases after some natural or man-made disaster has occurred.

Crisis preparedness in libraries with an accent on prevention was studied in the academic libraries in Greece (Kostagiolas et al. 2011), the polytechnic libraries in Gana (Ayoung et al. 2016), the university libraries in India (Kaur 2008), the libraries and archives in the Middle East (Hussein Moustafa 2015) and South African libraries (Chizwina and Ngulube 2021). All those studies found that crisis preparedness in the surveyed institutions is

insufficient, crisis management is ill-organized and a written crisis preparedness plan is present in far fewer libraries than found in the survey by the IFLA (Niet et al. 2016). And again, one must consider that having a crisis preparedness plan is different from implementing it properly.

When researching the implementation of crisis preparedness plans in libraries, Muir and Shenton (2002) came to the unpopular conclusion that having a plan did not make much difference in disaster recovery. What made a substantial difference were the preparedness, training and education of the staff in implementing such a plan. For it to be functional, a crisis preparedness plan has to be practised, regularly updated and all employees must be empowered to act upon it. In practice, it is rarely done.

The research in Nigerian university libraries (Ilo et al. 2020) shows a lack of awareness among the library staff regarding crisis management, but it also relates the awareness to having a written emergency plan. In other words, staff awareness brings about the full potential of a written crisis preparedness plan, while having a written plan broadens the awareness about crisis management among the staff. It's a two-way circle.

The preparedness of Croatian libraries for crises, crisis recovery and the overall risk awareness has so far been studied sporadically and only partially (Holcer 2009; Krtalić et al. 2011a; Krtalić and Hasenay 2011; Krtalić et al. 2012; Barbarić 2013). The results of the studies show that the libraries were not equipped with at least the legal minimum of protection for the collections they were holding (Holcer 2009; Barbarić 2013). They also point out the lack of policy documents or specific guidelines which would facilitate the preparation of the required procedures and protocols. International surveys that included Croatian libraries in their samples reported equivalent results (Varlamoff and Plassard 2004; Matthews 2007). Even though the results of those studies are not entirely comparable, since they do not refer to the same research sample or the identical research area, and a lot of time has passed since the last research, the general impression is that things are moving forward, but unevenly and slowly.

### 3. Methodology

Croatian academic and special libraries are specific for their rich and diverse collections, as well as their formal and legal status (Pikić 2020). Knowing about the damage and loss to the library materials during recent natural disasters, it is evident that we were (once again) caught off guard. This research aimed to assess the current state of crisis awareness and preparedness in those libraries to plan future developments through targeted actions and educations.

Assuming the main factors that cause collection damage and loss due to disasters, the research questions were as follows: a) what are the infrastructural conditions of these libraries, b) what are their past experiences with disasters and c) how are they prepared for future crises?

### **3.1. Procedure**

The research was organized into two parts. In the first part, we tested the questionnaire on a small sample of librarians, which allowed for the detection of unclear questions or options, and the time needed to answer them. These were corrected before distributing the final version.

The main study was conducted from October 5 to 25, 2020 with the Croatian academic and special libraries' representatives. An online questionnaire was designed using Google Forms and distributed via e-mail.

At the beginning of the questionnaire, the respondents were informed about the aim of the research, the approximate duration of the survey and the planned methods of results dissemination.

The online questionnaire consisted of twenty-two questions and had an estimated completion time of five minutes.

### **3.2. Instruments**

The survey comprised questions about library equipment and infrastructure, organization and staff education in terms of crisis management, and the experience in dealing with crises collected so far. The questions were composed according to international standards in the field (Shenton 2000; ISO 11799:2015; ISO 31000:2018; Dawson 2018). The questionnaire was formatted with closed questions (where respondents choose from a list of potential answers) for a faster and easier response because they require no writing, and their quantification and analysis is simpler (Oppenheim 2000). To mitigate the possibility of spontaneity and expressiveness loss, we included an "Other (please specify)" option, which enabled the respondents to add their preference. Apart from the answers Yes/No, Region and Library type, the participants were allowed to select more than one option from the set of answers. At the end of the questionnaire, there was also an option to add any comment regarding the theme.

### **3.3. Sample details**

The questionnaire was validly completed by 150 library representatives which makes 68% of all academic and special libraries in Croatia, which has 221 in total. This is more than two out of three libraries, which makes the sample relevant for generalization purposes.

By type, 6 out of 8 (or 75%) of all Croatian university libraries answered our questionnaire, 62 of 94 higher education libraries (66%), 2 out of 2 scientific libraries, in other words all research libraries and 80 of 117 special libraries (68%).

As seen in Chart 1, if we combine all higher education libraries, including university libraries and research libraries under one denominator called academic libraries, we can say that almost the same number of special and academic libraries took part in this research.

As expected, the majority of them are situated in the City of Zagreb, the capital and the biggest city in Croatia (25 academic and 33 special libraries, 39%), followed by other counties with cities larger than 100,000 inhabitants: Split-Dalmatia County (9 academic



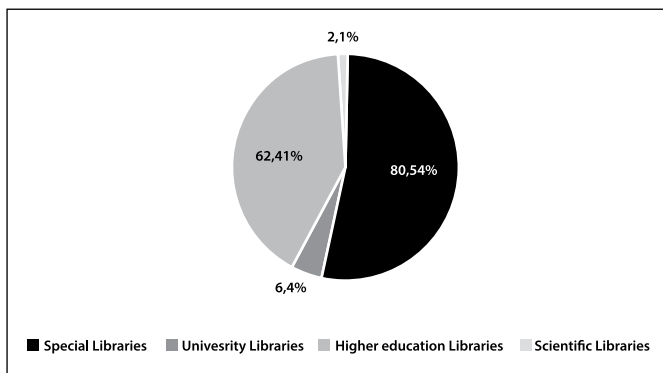


Chart 1. Types of libraries represented in this research

and 11 special libraries, 13%), Osijek-Baranja County (10 academic and 5 special libraries, 10%) and Primorje-Gorski Kotar County (10 academic and 4 special libraries, 9%).

When it comes to the legal status of these libraries, as seen in Chart 2, a substantial majority of the libraries are a dependent component of a parent legal institution making their organizational and management capacities limited. Only 7% of the academic libraries are an independent legal entity, and when it comes to special libraries, only 1 of them.

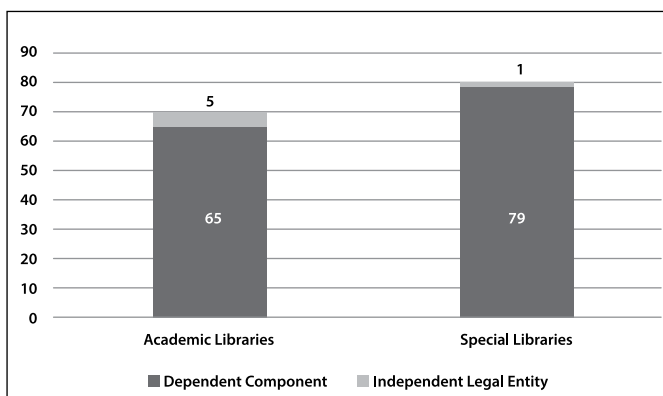


Chart 2. Organisation structure of libraries

### 3.4. Results and discussion

#### 3.4.1. The adequacy of library location and settings

The adequacy of library location and settings in the context of collections safety is not satisfactory as 28% of the libraries are situated in buildings that are 100 to 199 years old. Special libraries are generally located in older buildings than the academic ones. Thirty percent of academic libraries and 58% of special libraries are located in buildings older than 100 years (Chart 3). If we look at these numbers in the context of the first earthquake-resistant construction legislation which came about in Croatia around 1964 (Jurukovski and Gavrilovic 1994), as much as 71% of the libraries are found in buildings that were originally built without anti-seismic reinforcements.

If we overlap this information with the current earthquake map of Croatia (Herak 2011), as much as 83% of Croatia’s special and academic libraries are found on the seismically active ground. These facts should be of great concern for the heads and representatives of the academic and special libraries.

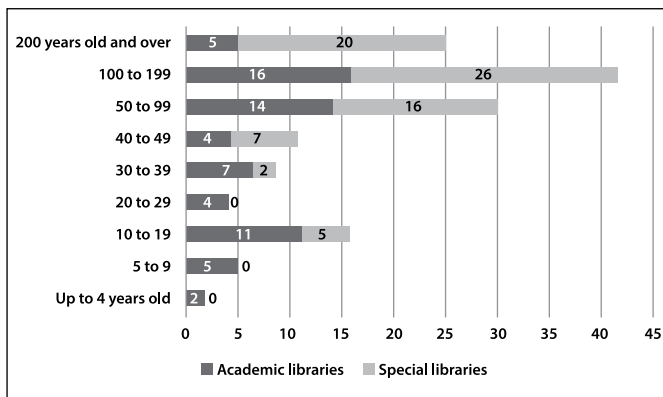


Chart 3. The age of buildings in which the libraries are situated

The location of library storage inside of the building poses another potential problem in mitigating crises. Around 30% of libraries situate their storage in a basement or an attic. These locations are generally thought of as unfit for storing collections, in terms of not only the ease of evacuation, but also resistance to extreme weather, floods, and such (Balloffet and Hille 2005). As seen in Chart 4, basements are more frequently used solutions than the attics.

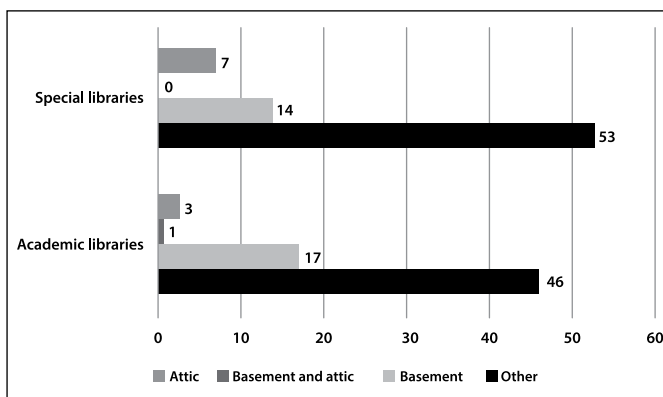


Chart 4. The location of library storage inside of the building

### 3.4.2. Library equipment

When posing questions about library safety equipment regarding crisis prevention, answers vary considerably. Six percent of the libraries had no form of fire protection system whatsoever. On the other hand, 53.3 % of the libraries reported having full fire-fighting systems equipped with a fire alarm (Chart 5). Fire protection is not enhanced through the choice of shelving either. Almost every fourth library (23%) has shelves made of wood or wooden products, 30% of them have metal shelves, and the rest have a com-

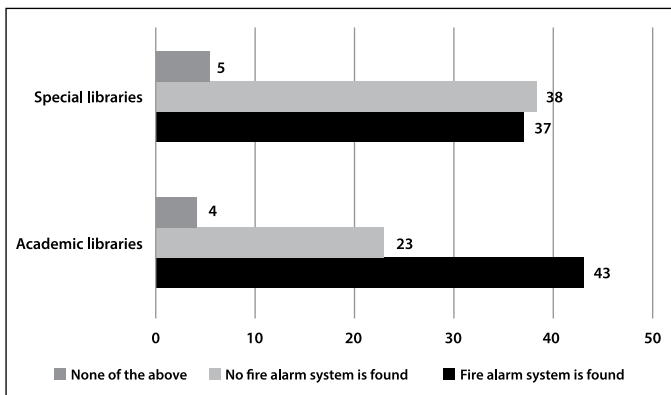


Chart 5. Type of fire protection systems found in libraries

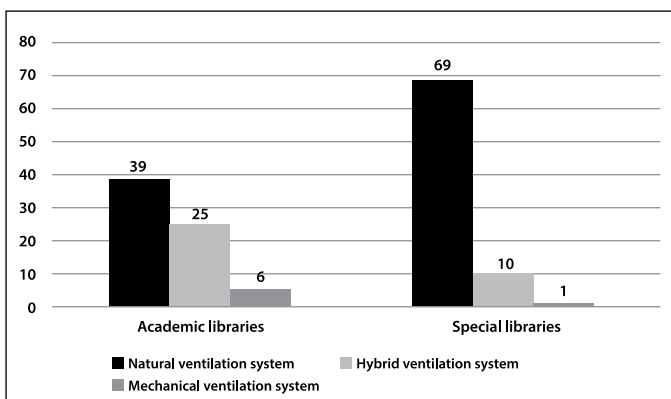


Chart 6. Type of ventilation system used on libraries

bination of both.

The shelves in our libraries are not reducing other potential risks either. Almost one-third of the libraries do not have all the shelves raised from the floor at least 15 cm, with a slightly better situation in the special libraries (26%) than in the higher education

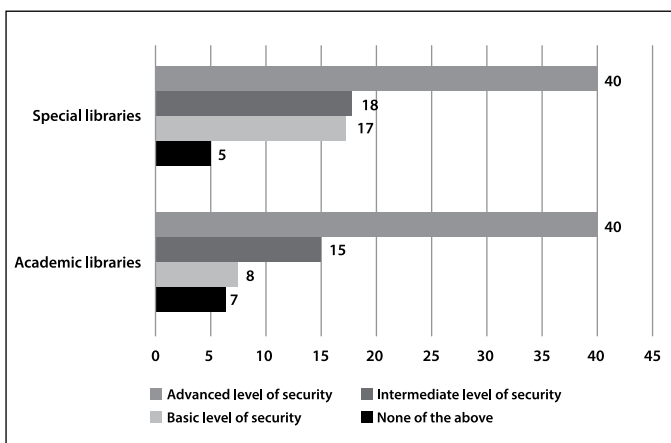


Chart 7. Level of security found in libraries

libraries (more than a third of all libraries, 36%). Out of 150 libraries, 66 responded that they do not have all the shelves closed at the top (44%), with the situation slightly worst in the special libraries (49%). This means only a third of the surveyed libraries have their collections shelved according to the standards (ISO 11799:2015).

Ventilation is rarely achieved through ventilating systems; as much as 72% of the libraries use only windows for this purpose. As seen in Chart 6, only 5% of the libraries reported to have a closed ventilation system, and those are found in the academic libraries.

It is not much different if we look at the security system graph. Six percent of the libraries have no form of security system for their institutions whatsoever, whereas 53.3% of them have elaborate systems combining video surveillance, protection services and user registers (Chart 7).

### 3.4.3. Crisis preparation and mitigation planning

Crisis and disaster situations are something that cannot be predicted. What can be done is to educate and prepare ourselves so that the worst-case scenario could be prevented. Sixty percent of the libraries outlined to have at least a basic level of education regarding emergency recovery, mostly only legally binding training, such as occupational safety and health at work courses. If we look at the numbers from another angle, this means that 40% of the libraries did not have even the basic training on handling fire extinguishers.

Out of four university level LIS programs in Croatia, two have obligatory courses in preservation of library materials, while the other two offer such content only as elective. However, only one programme has an elective course dealing with specific aspects of preservation in crisis situations and risk management. Even though it is possible that some aspects of risk assessment and crisis management are discussed within other courses, it is far from giving future librarians the needed competences (Alajmi and Al-Qallaf 2018).

Infrequent seminars or workshops are often inaccessible for librarians coming from remote libraries and are unable to substitute continuously organized and targeted training. Although the Centre for Continuing Education of Librarians in Croatia has been offering

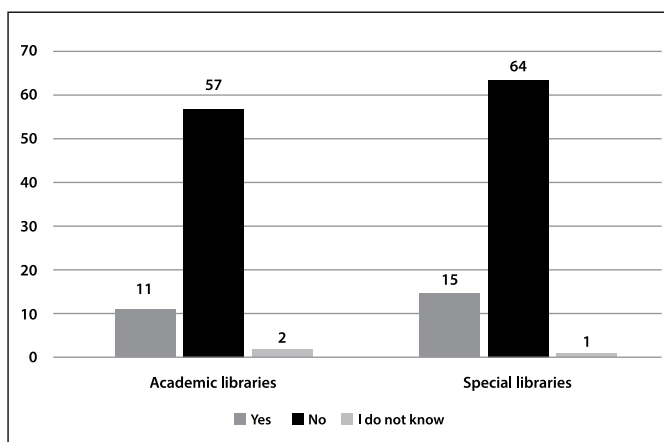


Chart 8. Risk assessment made for the library

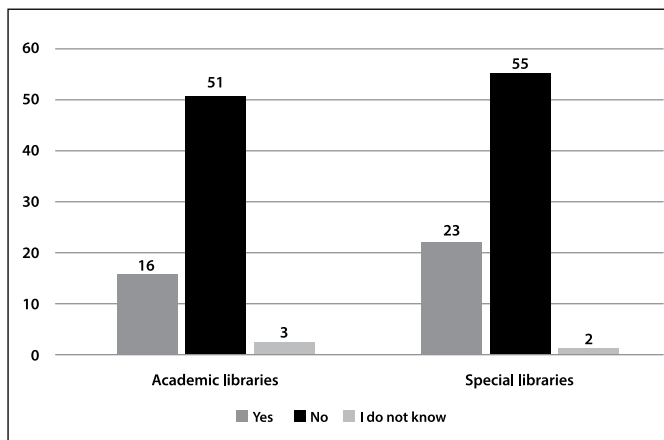


Chart 9. An emergency plan made for the library

two to three seminars, workshops or webinars yearly since 2002, dealing with subjects such as the protection of library collections in crisis situations, disaster preparedness or preventive conservation of written heritage (Filipeti 2021), the need for a broader increase in awareness, librarian competences and capacity building is evident.

Only 16.7% of the libraries stated that they have a risk assessment made for their institutions (Chart 8), and 26% of them have written procedures in cases of emergency (Chart 9). These percentages are far below the expected level since all legal entities in Croatia are obliged to have them. What is obligatory is the risk assessment and emergency procedures only regarding people, staff, leaving it up to the institutions to choose if they want to do the same for their collections. And if 35.3% of the libraries reported having old, rare books or manuscripts in their collections, the numbers are not reassuring. Especially when of those, only 26% have reported storing them in adequate conditions.

We have asked legal representatives of special and academic libraries to name the biggest challenge in their crisis managing, and their answers are represented in Chart 10.

Of them, 37% stated that space is the biggest obstacle in their crisis management, 16% found the managements of their parent institutions to be the obstacle and another

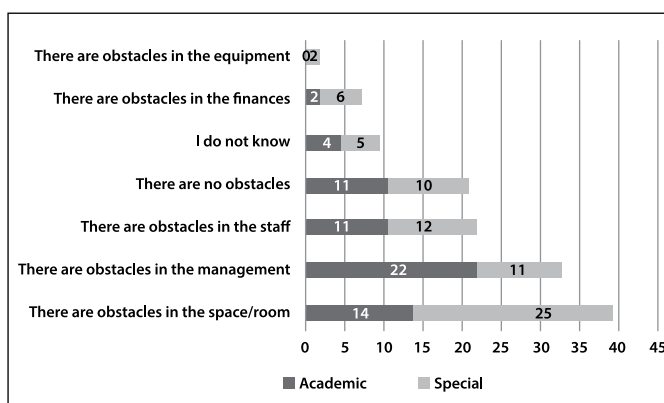


Chart 10. What is thought to be the biggest challenge in crisis managing

18% stated the staff represented the biggest challenge. When we look at the numbers regarding the library type, special libraries face more challenges regarding space (37%), while academic libraries find that the managements of their parent institutions are the most challenging for them (35%). Interestingly, 15% of the libraries stated that there are no obstacles to their good crisis management so it is safe to assume they are satisfied with it.

### 3.4.4. Incidents and cooperation

If we look at their experience so far, almost two-thirds of the libraries reported at least one incident in the past 10 to 15 years. Most reported incidents are water and earthquake related. As many as 27% respondents reported having at least one incident with water in the last decade. For the last incident that was recorded in their institution, 33% of them stated it was an earthquake. This mostly refers to the earthquake that struck Zagreb on March 22, 2020. It is not surprising, since 39% of the libraries represented in this research are located in Zagreb. What is sad is the fact that in October 2020, 13 out of 58 libraries in Zagreb still had not repaired the damage caused by the earthquake (22.4%).

Only 1% of the libraries has had help from other institutions in recovering from a crisis (Chart 11). The avoidance of asking for help from similar institutions certainly weights the sense of solidarity and cooperation in the crisis. Even when libraries did get help in reco-

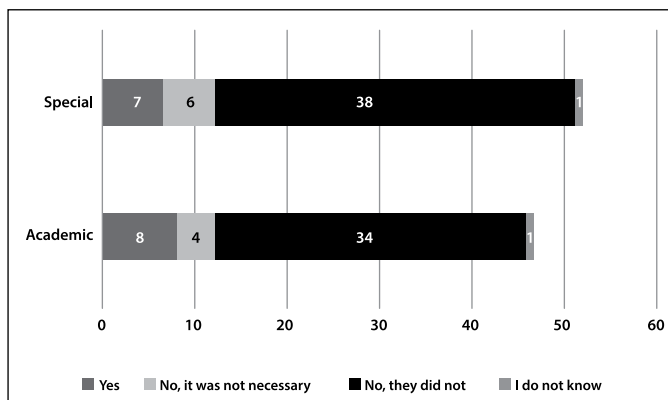


Chart 11. Help from other institutions in recovering from a crisis

vering from an incident, it was mostly from official services like the firefighters. When asked directly if they had any professional aid from the National and University Library in Zagreb, numbers do not go in its favour: only 9% of the libraries cited asking and receiving help from Croatian Central Coordination Library’s Office. This help refers mostly to the advisory function of the Croatian Institute for Librarianship which operates inside the National and University Library in Zagreb. The results of this research show that the cooperation should be encouraged, especially in situations where financial difficulties pose the biggest obstacle in risk management.

### **3.5. Research conclusions**

This research aimed to assess the state of crisis preparedness, management, and the potentials of crisis response in academic and special libraries in Croatia. In answering the main research questions, results have shown that academic and special libraries in Croatia frequently have inadequate infrastructural conditions. They are often situated in old buildings which are not envisaged for library purposes, leaving them vulnerable to most natural disasters. Special libraries especially report having to cram their collections in small and inadequate spaces. The quality of infrastructure varies also considerably. While few have elaborated safety and prevention systems, the majority has insufficient or none.

The most numerous and frequent past experience of these libraries in terms of disasters are incidences related to water and earthquakes, with an extended recovery period. Disaster responses are routinely incoherent and depending only on the sense of personal responsibility of staff members. Interestingly, the academic and special librarians do not report cooperation with similar institutions when struck by disasters. This could be due to the issue of the official power to make legal decisions and their legal status as an organizational unit of the parent institution.

Most academic and special libraries still do not have proper risk management documentation. The number of written emergency plans is below expected, even though preparing plans, risk assessments and recovery procedures are essential for dealing with future disasters.

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## **4. Final remarks**

Although an increase in emergency plans and risk assessments in Croatian academic and special libraries since 2013 has been observed, the numbers are still far from the average reported in the IFLA survey. There is still much to be done in preparing Croatian libraries for dealing with the current crises, as well as empowering them to avoid worst-case scenarios in future ones. The lack of guidelines cannot be an excuse anymore: the most prominent international institutions such as UNESCO, IFLA and ALA, all have published practical manuals on how to organize crisis management in heritage institutions. With little adaptation to unique local needs, these could be implemented in every library. Financial excuses can also go only so far: changing the way we think of our heritage, its risk and crisis management and broadening our awareness costs nothing. Only when we change our attitudes regarding heritage that is entrusted to us to safeguard for future generations, can we expect to build the needed competencies and capacities to handle crises. Building resilience is a long-lasting endeavour.

Another devastating earthquake that shook continental Croatia just two months after the completion of this research only emphasised its findings and reminded us once more that disasters can strike at any moment, and that our ill-preparedness brings about irrecoverable loss of our heritage. All the academic and special libraries in Croatia have witnessed at least one crisis situation in the last two decades, some coping with recurring ones, while others have faced multiple and cascading disasters.

Everything goes to show that systematic planning of continuous improvement of library space, infrastructure, and funds is needed, as well as the importance of further lifelong teaching and training of library staff. With planning, preparation and education, it is possible to lessen the damage inflicted by accidents and crisis and better protect the written heritage.

### ***Acknowledgments***

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## Sažetak

### **Visokoškolske, znanstvene i specijalne knjižnice u Hrvatskoj i njihova spremnost na krizne situacije: anketno istraživanje**

**Cilj.** Ovo je istraživanje imalo za cilj procijeniti stanje pripravnosti na krizne situacije, način upravljanja rizicima i potencijalne odgovore na krize u visokoškolskim, sveučilišnim te znanstvenim i specijalnim knjižnicama u Hrvatskoj. Većina visokoškolskih i specijalnih knjižnica u Hrvatskoj nije samostalna ustanova: sastavni su dio drugih institucija ili organizacija pa je njihova sloboda u uspostavljanju mjera upravljanja kriznim situacijama ograničena. Te su knjižnice specifične po svojoj organizaciji, korisnicima i zbirka, a značajan dio njih čuva vrijedne zbirke stare i rijetke knjižnične građe.

**Metodologija.** Podaci su prikupljeni mrežnom anketom koja je poslana u sve hrvatske visokoškolske, znanstvene i specijalne knjižnice. Anketni upitnik uključivao je pitanja o procjenama rizika, stanju upravljanja krizama, trenutačnom iskustvu i obrazovanju osoblja, kao i o razini pripremljenosti za krizu i o kriznim pojavama. Budući da se značajan postotak hrvatskih visokoškolskih i specijalnih knjižnica nalazi u Zagrebu i njegovoj okolici, naglasak je stavljen na nedavne katastrofe koje su pogodile taj kraj (potresi i poplave u 2020. godini) i način na koji su knjižnice na njih reagirale.

**Rezultati.** Rezultati su pokazali značajne razlike u opremi, uvjetima i kapacitetima za spremnost na krizne situacije među ispitanim knjižnicama. Pokazali su učestalost kriznih situacija, kao i načine na koje se knjižnice nose s njima.

**Originalnost.** Istraživanjem se doprinosi razvoju područja zaštite knjižnične građe donoseći nove spoznaje o upravljanju kriznim situacijama u visokoškolskim i specijalnim knjižnicama u Hrvatskoj. Prikupljeni podaci poslužit će kao dobra osnova za planiranje i organiziranje stalnog stručnog usavršavanja i ciljanih akcija u svrhu poboljšanja očuvanja kulturne baštine u opasnosti.

**KLJUČNE RIJEČI:** baštinske zbirke, odgovor na kriznu situaciju, pripravnost na krizu, specijalne knjižnice, suradnja, visokoškolske knjižnice