Disaster Management of Archives in Indonesia: A Systematic Literature Review

¹Jalinur, ²Rahmi

^{1,2}Universitas Indonesia

INTISARI

Arsip adalah aset penting bagi organisasi, komunitas, dan individu. Pemulihan arsip dari bencana alam dan bencana akibat ulah manusia membutuhkan penanganan yang cermat. Pemerintah, lembaga, dan sektor swasta harus merencanakan dan mempersiapkan pengelolaan penyelamatan arsip, yang tujuan utamanya adalah preservasi dokumen dan arsip jangka panjang. Penelitian ini bertujuan untuk menentukan model pengelolaan arsip terdampak bencana dan mengkaji tantangan penanggulangan bencana pada arsip di Indonesia dengan melakukan tinjauan pustaka sistematis terhadap artikel jurnal terbitan 2015 hingga 2020. Hasil penelitian menunjukkan bahwa artikel jurnal yang dipilih terutama difokuskan pada pencegahan bencana, Sedangkan pemulihan bencana tidak banyak dibahas dalam artikel jurnal dari Indonesia. Penelitian ini mengkaji kesesuaian model yang disajikan dalam literatur untuk mengelola dan menyelamatkan arsip relatif terhadap aturan Indonesia serta model dan metode yang ada.

Submitted: 17/03/2021 Received: 28/12/2021



*Correspondence:

Jalinur <u>jalinur@ui.ac.id</u>

KATA KUNCI:

Arsip bencana

Manajemen bencana arsip

Tinjauan literature sistematis

ABSTRACT

Archives are vital assets to organizations, communities and individuals. Recovering archives from natural and human-made disasters requires careful handling. Governments, agencies, and the private sector must plan and prepare for archive rescue management, the main objective of which is the long-term preservation of documents and archives. This study aims to determine models of disaster affected archive management and to assess challenges to managing disasters in archives in Indonesia by performing a systematic literature review of journal articles published from 2015 to 2020. The results show that the selected journal articles primarily focused on disaster prevention, while disaster recovery was not widely discussed in journal articles from Indonesia. This research examines the suitability of models presented in the literature to manage and rescue archives relative to Indonesia's rules and existing models and methods

KEYWORDS:

Disaster affected archives

Disaster management in archives

Systematic literature review

CITE THIS ARTICLE:

Jalinur dan Rahmi. (2021). Disaster Management of Archives in Indonesia: A Systematic Literature Review . Jurnal Diplomatika, 4 (2), 86-98. https://doi.org/10.22146/diplomatika.64756

INTRODUCTION

Environmental disasters are unpredictable and can happen anytime and anywhere without advance notice. Disasters can threaten both human lives and assets, including records held in archives. Therefore, plans and strategies to respond to disasters must be prepared by every agency, especially at archival offices or other information centres, to protect the historical and intrinsic value of the agency's records. Franks (2013) states that:

"In many instances, the loss of information included in vital records can be more devastating to the continuation of an organisations' operations than damage to or the loss of physical space or equipment that is often insured and replaceable. Loss of vital records can result in: a) disruption of essential customer services; b) exposure to unplanned expenses of financial settlements or loss of revenue; c) increased vulnerability to litigation, and; d) loss of productivity due to gaps in information. (p. 203)."

Accordingly, it can be concluded that problems that arise from damage, such as loss of vital records or archives, can affect the organisation's operations and interfere with the effectiveness and productivity of the organisation's business activities.

Institutions should manage not only the archives and included documents, but also consider the building storing the archive. Buildings can protect archives and stored documents from disasters and preserve information so it is not damaged, lost, or unusable.

This research consists of five parts. Section 1 contains a study background. Section 2 contains a literature review consisting of three sub-sections regarding disaster affected archives, their general management, and management of disaster affected archives in Indonesia and abroad. Section 3 describes the methods, consisting of compiling research questions, search strategies, search terms, literature sources, and inclusion and exclusion criteria. Section 4 presents results and discusses their implications. Finally, section 5 draws conclusions.

Literature Review

Understanding Archives and Disasters

Archives are essential for any organisation and for many individuals. Archives require expertise in management so that the information contained within them can be accessed and used when needed. According to Indonesia Law No. 43 of 2009, article 1, point 2, archives are records of activities or events in various forms and storage media following developments in information and communication technology that are made and accepted by state institutions, local governments, educational institutions, companies, political organisations, social organisations and individuals in the implementation of social, national and state life.

According to the regulation of the Head of the National Archives of the Republic of Indonesia Number 23 of 2015, disaster is an event or series of events caused by natural factors, non-natural factors, or human factors that threatens and disrupts the life and livelihoods of the community and results in human casualties, environmental damage, property loss, and psychological impact. Similarly, WHO (2020) states that a disaster is an occurrence disrupting the normal conditions of existence and causing a level of suffering that exceeds the capacity of adjustment of the affected community.

As Fernie and Gilman (2000:47) observe, that disasters do happen, they are inherently unpredictable. Disaster management planning helps you to react in the event of a disaster and to cope with the aftermath." As disasters often occur naturally and unexpectedly, and have wide-reaching effects, agencies and institutions should actively manage and take preventive actions to mitigate the consequences of disasters

on archives.

Archive Management

Archive management can be described as a system that helps formulate an organisation's policies and goals regarding the archive. Archive management includes the processes of creation, storage, and rediscovery. As Mulyono and Sularso (2003, p. 32) detail, archive management principles should be safe, durable, up to date, and efficient. When implementing archive management, storage can be characterized by the following three principles.

1. The principle of centralisation

Each archive in an organisation should be centralised in a separate unit. Each unit does not carry out separate archiving activities. The objectives of storage under the principle of centralisation are to:

- a. Facilitate the implementation of uniform procedures and equipment
- b. Develop handling procedures and train personnel to meet specific requirements
- c. Prevent and reduce errors as early as possible due to a single channel. Thus, certainty and responsibility become apparent, and tracking errors or lost files becomes easier.
- d. Increase effectiveness of supervision through simple control procedures
- 2. The principle of decentralisation

Each work unit organises archiving activities separately. The objectives of storage under the decentralisation principle include:

- a. The ability to adjust each unit's filing systems according to its needs and activities
- b. Faster archive management and item retrieval because the location is closer to the unit
- c. Faster elimination/shrinkage of archives because each archive is directly linked to a unit's needs
- 3. Combined principles (centralisation and decentralisation)

Using the principle of decentralisation, archives for several work units are centralised. For units with specific requirements, separate archive storage operations can be applied. Storage with the combined principle is intended to eliminate the weaknesses of each method alone. Using the combined principles, the following patterns can occur:

- a. Some of the work units for administering storage are centralised; only a small proportion of units have separate storage.
- b. Most of the work units have separate storage; only a small portion of the work units have centralised storage.
- c. Each work unit maintains its separate storage, but all storage is collected in one building or room. This pattern is characterized by a concentration of activities for carrying out archive storage.
- d. Each work unit maintains its separate archive storage, but the implementation is combined into several groups. This pattern is characterized by a deconcentration of activities.

Disaster-affected Archive Management in Indonesia

Disaster-affected archive management is highly recommended and is beneficial to an organisation. The regulation of the Head of the National Archives of the Republic of Indonesia describes the management of disaster affected archives in Indonesia as the protection and rescue of archives at the post-disaster stage, including a) rehabilitation, b) reconstruction, and c) documentation and reports (Number 23 of 2015, Chapter 5,

Article 25).

A series of further articles detail the steps of these processes. Rehabilitation is carried out through repairing archiving infrastructure and facilities and restoration of archival service functions (Article 26). Reconstruction entails rebuilding archiving infrastructure and facilities and increasing archiving services (Article 27). The Disaster -affected Archives Management Team was established by Article 28 and is responsible for carrying out documentation. Briefly, the team focuses on disaster management costs and strategies and compiles documentation including a list of archives needing rescue action, a list of files destroyed, physical actions taken to save the archives, and minutes of post-disaster archive conditions. Further according to Article 28, the archival institution shall keep archives created in the implementation of protection and rescue of archives from disasters.

Three key components of conservation developed by the National Conservation Advisory Council (NCAC) are described by Lynn (1983, p. 9). These include: 1) Examination to determine, communicate and decide the actions to be taken to determine the age/shelf life of the archives and the level of loss; 2) Preservation or prevention to slow down or prevent damage to the archives and to control the existing environment and minimise damage that occurs in the environment; and 3) Restoration to restore the damage that has occurred to the archive by way of overhauling it in whole or in part so that it equates to the original archive—in this case, the information contained in the archive is at least legible so that its contextual and historical contents can be saved.

According to Crespo and Vinas (1985, p. 51), the concept of restoration is closely related to preserving archives and focuses on the integrity of the documents/archives, an idea based on respect for the physical documents/archives and their material value. Crespo and Vinas (p. 54) describe an appropriate restoration program. Archives must first be differentiated according to type so that restoration activities can be responsive to the character of the document or item to be recovered. Subsequent steps include identification, diagnosis and choice of methods such as photography, cleaning of bacteria or destructive materials using dry-cleaning or washing with an aqueous solution containing bleach, deacidification as a drying method, and lamination.

Management of Disaster affected archives Abroad

The 2018 book *Disaster Preparedness and Recovery Planning: A Public Records Manual* published by the Oregon Association of Municipal Recorders (OAMR) Records Management Committee (RMC) explains that post-disaster restoration is a further recovery process. This step must occur after archives are collected or restored and before archived items can be used, stored, or returned to storage. This process can be done with disaster affected archives, and includes the following components.

Repair

Repairs to permanent archive items with historic and intrinsic value should only be made using reversible and non-destructive maintenance. For example, adhesive tape should not be used because many adhesive tapes contain chemicals that are harmful to paper and can be difficult and expensive to remove. Professional paper conservators should be hired or consulted for this purpose unless staff members or volunteers are technically trained for this job. Lamination similarly has a destructive effect. Lamination does not prolong paper's natural life, and the sticky plastic is nearly impossible to remove. Lamination should not be confused with the professional practice of "encapsulation," in which a document is placed between two inert plastic sheets. The resulting "sandwich" is simply sealed around the edges so that the

document is not attached to the plastic in any way.

Storage

Shelves holding wet files must be cleaned before files are reshelved. Shelves and floors in affected areas should be washed with a weak sodium hypochlorite (bleach) solution, for instance, 1 gallon of water with an added ¾ cup of bleach. A more effective treatment is quaternary ammonium compounds, which are available under a variety of brand names. Water-damaged or mouldy files should be kept separate from other files for at least six months in a well-ventilated and climate controlled area of 65 degrees F and 35-45% relative humidity.

Transfers

This step involves determining who has the legal authority to order the destruction of archives, what archives should be kept, and where or how files will be disposed of.

METHODS

A systematic literature review method with a qualitative approach was used following the steps described by Albanna and Heeks (2019) and Bell et al. (2019). First, the authors collected materials indexed under "disaster-affected archives management" or "disaster-affected archives management strategies." Then, the resulting literature was analysed and categorized. The steps of the research process are detailed below.

Development of Research Questions

At the initial planning stage, the researcher identified research boundaries and compiled research questions using the PICOC method (Population, Intervention, Comparison, Outcomes, and Context; Petticrew, 2006). Research boundaries were needed to focus the reviewed articles in order to answer specific research questions. Research questions were formulated in about three days after the topic of the literature review was determined. The method to determine the research questions is shown in Table 1.

 ${\bf Table~1.~Identification~the~Scope~of~the~Research~Questions~using~the~PICOC~Method}$

Criteria	Scope
Population	Management of archives and disaster affected archives in Indonesia
Intervention	Limits on the models, implementation, and challenges of management of disaster affected archives in Indonesia
Comparison	Not found
Outcomes	Disaster affected archives, management models, management implementation, and challenges in managing disaster affected archives in Indonesia
Context	Review of the results of searches for disaster affected archives management in Indonesia

Following the method in Table 1, the following research questions were determined. **RQ 1**: How much research has examined the assessment of disaster affected archives management in Indonesia? **RQ 2**: What are the models used in managing disaster affected archives in Indonesia? **RQ 3**: What are the challenges in managing disaster affected archives in Indonesia?

Search Strategy

At the execution stage, this research used the PRISMA (Preferred Reporting Item For Systematic Review and Meta-Analysis) approach. The steps of the data search are shown through the search terms used, online database sources, inclusion and exclusion criteria, quality assessment, search results, and an explanation of search results (Handayani, 2017).

Search Terms

The search terms combined and integrated synonyms using Boolean operator search methods, such as OR, AND, and NOT. This search formulation was carried out on each search engine for one week. The formulation used is shown in Table 2.

Criteria	Synonym Integration			
Population	Management disaster affected archives of archives OR archives of disaster management			
Intervention	Disaster affected archive management OR Disaster affected records management model OR Disaster affected records management challenges			
Method	Model OR Implementation of OR challenges			

Table 2. Search Terms

Literature Sources

Three databases were used in the search beginning on December 19, 2020. The following databases were searched: 1) Google Scholar (scholar.google.com), 2) OneSearch, 3) Garuda Portal, managed by the Ministry of Research, Technology and Higher Education of the Republic of Indonesia. Each database had different characteristics. Google Scholar presented general results. OneSearch presented similar results to Google Scholar but with a more specific focus on journal articles in Indonesia. The Garuda portal produced nearly the same results as OneSearch, but was limited to journals indexed on the Garuda portal. Ten studies were found that were published between 2015 and 2020 or within ten years from the time the study was conducted. The content of each article was reviewed to ensure it focused on the research topic. Three of the 10 articles discussed the management of archives against the impact of disasters, two articles focused on the understanding of archival staff in dealing with disasters, three discussed the protection of archives against disasters, and two focused on handling disaster files. Table 1 summarises the article collection. Articles included journal articles, designated A, undergraduate theses or final products, designated TA, and master's theses, designated T.

Inclusion and Exclusion Criteria

Inclusion and exclusion criteria were used to identify articles relevant to answer the research questions (Handayani, 2017). These criteria were determined within one week of performing the literature review. The inclusion and exclusion criteria for this study are shown in Table 3.

Table 3. Inclusion and Exclusion Criteria

Inclusion	Exclusion				
All journal articles published in Bahasa Indonesia (Indonesian language)	Journal articles published in non- Indonesian languages				
All journal articles published from 2015 to 2020	Journal articles published before or after 2015–2020				
Journal articles focusing on disaster archive management, strategies, challenges and policies	Journal articles that do not fit the scope of the research boundaries				
	Journal articles that are duplicated in the database				
	Journal articles containing spatial explanations and community participation in the title				

RESULTS AND DISCUSSION

Utilizing the search strategy in the three specified scientific journal databases (Google Scholar OneSearch, and Garuda) 16 articles were identified. Six articles were excluded based on content considered irrelevant to the study's focus, namely articles that focused on discussions about spatial aspects and community participation. The remaining ten articles were reviewed in order to address the research questions.

The selected journal articles on disaster affected archives management were interdisciplinary. Details of the selected journal articles are in the Appendix.

RQ 1: How much research has examined the assessment of disaster affected archives management in Indonesia?

Ten journal articles were selected and used to assess disaster affected archives management, all of which used a qualitative approach (Figure 1). Five primary methods of data collection were used among the articles. Three performed case studies, two collected data through literature reviews, one used methods including interviews, observation, and documentation, one used a pre- and post-interview design, and one focused on preventive and curative care.

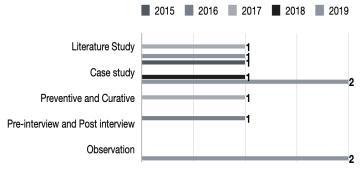


Figure 1. Distribution of use of the method in the article

Several trends in the included articles were noted. While the search limited articles to publication dates between 2015 and 2020, the articles used in the review spanned 2015-2019. Of the 10 articles used, one was published in 2015 (article A-01),

one in 2016 (TA-08) and one in 2018 (T-09). Two articles were published in 2017 (A-02 and T-10), and five were published in 2019 (A-03, A-04, S-05, S-06, and S-07). Most articles used a qualitative approach; three articles used case studies. The most articles (five) were published in 2019, while in previous years one or two were published each year.

RQ 2: What models are used to manage disaster affected archives in Indonesia?

In Indonesia, disaster management preparation and procedures are described by the Head of the Indonesian National Archives. According to regulation Number 23 of 2015, Article 4, disaster management should consider the following:

1) Archival institutions at the central and regional levels must carry out maximum and comprehensive socialisation of laws and government regulations regarding the management, maintenance, protection and rescue of archives to parties directly involved in handling and saving archives from disasters; 2) Anticipating or preventive action before a disaster occurs, namely knowing and understanding the institution's location or location, whether it is located in an area prone to floods, prone to landslides. close to volcanoes and prone to earthquakes; 3) Planning in handling and saving archives from disasters, starting from anticipating disasters, coordination, handling and rescuing archives from disasters; 4) Forming a team for handling and saving archives from disasters; 5) Conducting technical training for employees in agencies so that they are skilled in handling and rescuing files from disasters; 6) Establishing an integrated information and communication system, namely communication between agency leaders, staff in agencies, security forces, parties related to disasters such as the local Disaster Management Agency, the Fire Service, the Indonesian Red Cross, and people who can be asked for assistance; 7) Cooperating with other agencies located far from the disaster site in order to use a temporary storage place to secure files from disasters.

The review of the articles in this study showed that various types of disaster management models were examined (Figure 2).

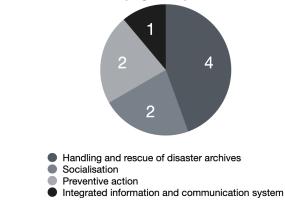


Figure 2. Distribution of disaster affected archives management models

Four articles examined the handling and rescuing of disaster affected archives (A-01, A-02, S-07, and T-09). Two articles discussed socialisation for archive staff, and two presented preventive actions in managing disaster affected archive. One article examined integrated information and communication systems. One article that is not included in the management models concerned the legal aspects of disaster management and focused on files concerning land that were burned.

RQ 3: What are the challenges in managing disaster affected archives in Indonesia?

Disaster preparedness plans are required to manage disaster affected archives. According to Harvey (1993, p. 123), a disaster preparedness plan minimally includes four components: prevention, response, reaction, and recovery. The distribution of preparedness plans for managing disaster affected archives in the selected journal articles is shown in Figure 3.

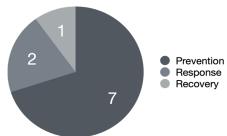


Figure 3. Disaster affected archives management preparedness plan

The selected articles showed a trend of research focused on taking preventive action for disaster affected archives. Seven articles examined prevention measures (A-01, A-02, A-03, S-06, S-07, TA-08, and T-10). Two articles discussed responses to disasters (S-05 and T-09), while one discussed disaster affected archive recovery (A-04).

CONCLUSION

Archives are vital assets for any organization or individual. For this reason, it is necessary to manage archives affected by natural disasters to protect the information stored in them. The search of the literature for research on the management of records affected by disasters shows that little research has been conducted on this topic. It is hoped that future research on this topic will be undertaken as well as research on new developments in methods to manage records affected by disasters. Most of the articles selected for this review focused on disaster prevention or preventive archive management and were carried out recently, with the majority being published in 2019. Procedures used to manage disaster affected archives in Indonesia in the selected articles included handling and rescuing disaster affected archives, socialisation of archiving staff, preventive actions in disaster management, and the use of integrated information and communication systems. Two of the articles showed that the archive staff were less than optimal in dealing with disasters, and that there was no training for archive staff to deal with disasters. The challenges faced in managing disaster affected archives in Indonesia were identified by these articles as prevention, preparation to respond to disaster, and recovery of disaster affected archives.

ACKNOWLEDGMENTS

The authors thank the anonymous reviewers for their constructive comments to improve the article. The authors would like to thank Universitas Indonesia for funding this research through PUTI Q1 with contract number NKB-1450/UN2.RST/HKP.05.00/2020. Any opinions, findings, and conclusions described here are the authors and do not necessarily reflect those of the sponsors.

REFERENCES

Albanna, B., & Heeks, R. (2019). Positive deviance, big data, and development: A systematic literature review. *The Electronic Journal of Information Systems in Developing Countries*, 85(1), e12063.

- Aris, R. Afdini, R. M. & Diah, B. U. (2016). Penerapan Knowledge Management: Oral History Penanganan Arsip Bencana Topan Haiyan di Filipina. Jurnal *Dokumentasi dan Informasi: BACA.* 37(2). 99-119.
- Basuki, S. & Deddy, I. (2019). Revitalisasi arsip pasca gempa bumi 7,0 skala richter tahun 2018 di kantor kecamatan pamenang, tanjung dan gangga, kabupaten lombok utara, nusa tenggara barat. *Media Bina Ilmiah*. 14(2). 1985-1992.
- Budi, S. (2017). Perlindungan Hukum Terhadap Hak Atas Tanah Masyarakat yang Arsipnya Musnah Terbakar Pasca Kebakaran Gedung Arsip Kantor Pertanahan Kabupaten Cianjur. *Jurnal Ilmu Hukum*. 1-38.
- Crespo, Carmen. (1985). The Preservation and Restoration of Paper Records and Books: A Ramp Study With Guidelines. Unesco, Paris.
- Fernie, K & Gilman, P (eds). (2000). Informing the Future of the Past: guidelines for SMRs. English Heritage.
- Fiqriena, A. W. & Margareta, A. R. (2019). Identifikasi Perlindungan Arsip Statis Terhadap Bencana Kebakaran: Studi Kasus di Arsip Nasional Republik Indonesia. *Jurnal Dokumentasi dan Informasi: BACA*. 40(1). 137-146.
- Franks, P. C. (2013). Records & Information Management. Chicago: American Library Association.
- Harvey, Ross. (1993). *Preservation in libraries: a reader*. London: Bowker Saur.
- Lastria, N. (2018). Penerapan Disaster Recovery and Contingency Planning pada Perlindungan Arsip Vital di BPN DIY. *Diplomatika: Jurnal Kearsipan Terapan*. 1(2). 82-92.
- Mulyono, Sularso. (2003). Manajemen Kearsipan. Semarang: UNNES
- Nova & Heriyanto. (2019). Pelestarian koran lama dari ancaman bencana pada depo arsip koran suara merdeka semarang. *Jurnal Ilmu Perpustakaan*. 8(2). 1-11.
- Novita, P. (2019). Kesiapsiagaan Perpustakaan dalam Menghadapi Bencana Kebakaran di Dinas Perpustakaan dan Arsip Daerah Provinsi Jambi. *Baitul Ulum: Jurnal Ilmu Perpustakaan dan Informasi*. 3(1). 18-32.
- Oregon Association of Municipal Recorders (OAMR) Records Management Committee (RMC). (2018). *Disaster Preparedness and Recovery Planning A Public Records Manual.* Northeast: Document Conservation Center.
- Peraturan Kepala Arsip Nasional Republik Indonesia Nomor 23 Tahun 2015 tentang Perlindungan dan Penyelamatan Arsip dari Bencana.
- Petticrew, M. & Roberts, H. (2006). Systematic Reviews in The Social Sciences. Malden, MA: Blackwell Publishing
- Ritzenthaler, Mary Lynn. (1983). *Archives & Manuscripts: Conservation: A Manual on Physical Care and Management*. Chicago: Society of American Archivists.
- Sofia, N & Lydia, C. (2019). Preservasi Kuratif Arsip Statis Tekstual Pasca Bencana Alam Letusan Gunung Merapi Tahun 2010 dalam Upaya Penyelamat Arsip di Dinas Perpustakaan dan Arsip Kabupaten Sleman. *Jurnal Ilmu Perpustakaan*. 6(4). 1-11.
- Undang-Undang Nomor 43 Tahun 2009 tentang Kearsipan.

- Verry, M. (2017). Strategi Kegiatan Preservasi Arsip Terdampak Bencana: Lokasi Kasus di Arsip Nasional Republik Indonesia. *Khazanah: Jurnal Pengembangan Kearsipan*. 10(2). 92-106
- WHO/EHA. (2020). Disaster & Emergencies Definitions. Addis Ababa: Panafrican Emergency Training Centre.
- Yeni, B. R & Margareta, A. R. (2015). Kesiagaan Menghadapi Bencana di Kantor Arsip Kelurahan Kota Depok. *Jurnal Kearsipan ANRI*. 10(1). 89-106.

Appendix: List of Selected Scientific Work

Arti- cle ID	Title	Author	Publi- cation Year	Article type	Faculty	Meth- ods
A-01	Preparedness for facing disasters at the archives office of the urban village of Depok	Yeni budi Rach- man, and Mar- gareta Aulia Rachman	2015	article	Humanities	Qualita- tive
	Kesiagaan menghadapi bencana di kantor arsip kelurahan kota Depok					
A-02	Strategy for preserving archives affected by disaster, location of cases in the National Archives of the Republic of Indonesia	Verry Mardi- yanto	2017	article	Humanities	Qualita- tive
	Strategi kegiatan preservasi arsip ter- dampak bencana lokasi kasus di Arsip Nasional Republik Indonesia					
A-03	Identification of archival protection against fire disasters: a case study in the National Archives of the Republic of Indonesia	Fiqriena Ang- gita Wigati, and Margareta aulia rachman	2019	article	Humanities	Qualita- tive
	Identifikasi perlindungan arsip statis terhadap bencana kebakaran: studi kasus di Arsip Nasional Republik Indo- nesia					
A-04	Revitalization of archives after the 7.0 scala Richter earthquake in 2018 in the Pamenang, Tanjung and Gangga sub-district office, North Lombok Regency, West Nusa Tenggara	Basuki Sriher- manto and Deddy Iskandar	2019	article	Administra- tive	Qualita- tive
	Revitalisasi arsip pasca gempa bumi 7,0 skala richter tahun 2018 di kantor Kecamatan Pamenang, Tanjung dan Gangga, Kabupaten Lombok Utara,					
S-05	Preservation of old newspapers from the threat of disaster in the depot of the Suara Merdeka newspaper ar- chive in Semarang	Nova and Heri- yanto	2019	Skripsi	Humanities	Qualita- tive
	Pelestarian koran lama dari ancaman bencana pada depo arsip koran Suara					

Arti- cle ID	Title	Author	Publi- cation Year	Article type	Faculty	Meth- ods
S-06	Preservation of Textual Static Archive Curative Post-Natural Disaster Erup- tion of mount merapi in 2010 in Ef- forts to save archives in the library and archives service of Sleman Regen- cy	Sofia Nurani and Lydia Christiani	2019	Under- graduat e thesis	Humanities	Qualita- tive
	Preservasi Kuratif Arsip Statis Tekstual Pasca Bencana Alam Letusan Gunung Merapi Tahun 2010 dalam Upaya Penyelamat Arsip di Dinas Per- pustakaan dan Arsip Kabupaten					
S-07	Library Preparedness in Facing Fire Disasters at the Regional Library and Archives Service of Jambi Province	Novita Pitri	2019	Under- graduat e thesis	Humanities	Qualita- tive
	Kesiapsiagaan Perpustakaan dalam Menghadapi Bencana Kebakaran di Dinas Perpustakaan dan Arsip Daerah Provinsi Jambi					
TA- 08	Implementation of Disaster Recovery and Contingency Planning for Vital Archive Protection at BPN DIY	Lastria Nurtan- zila	2018	Final project	Vokasi UGM	Qualita- tive
	Penerapan Disaster Recovery and Con- tingency Planning pada Perlindungan Arsip Vital di BPN DIY					
T-09	Application of Knowledge Management: Oral History Archives of Typhoon Haiyan Disaster Management in the Philippines	Aris Riyadi, Afdini Rihlatul Mahmudah, and Diah Budhi Utami	2016	Mas- ter's thesis	Humanities	Qualita- tive
	Penerapan Knowledge Management: Oral History Penanganan Arsip Bencana Topan Haiyan di Filipina					
T-10	Legal Protection of Community Land Rights whose Archives were Burned After the Fire Archive Building of the Cianjur Regency Land Office	Budi Saputro	2017	Mas- ter's thesis	Law	Qualita- tive
	Perlindungan Hukum Terhadap Hak Atas Tanah Masyarakat yang Arsipnya Musnah Terbakar Pasca Kebakaran Gedung Arsip Kantor Pertanahan Ka- bupaten Cianjur					