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Applying the Ibadat Concept During A Natural Disaster

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Abstract

Mankind was created and put on the face of this earth only to function as a caliph and to carry out the responsibilities established by his Creator, regardless of any type of situation. However, for individuals involved in a natural disaster, it is not a factor that prevents victims of natural disasters from abandoning their responsibility. Generally, natural disasters will impact individuals involved in the disaster from various aspects. The impact of natural disasters results in damage as well as loss of property and life. Islam, as a religion that always facilitates its followers so that a Muslim's responsibilities can be carried out without burdening the individual. Therefore, this study aims to elaborate on acts of worship performed during natural disasters. The content analysis method was used to obtain data from journal articles, book chapters and conference papers, which were then descriptively analysed. Findings indicate that the impact of natural disasters poses difficulties for disaster victims and Islam allows a certain amount of relief so that the mandatory worship practice commanded by Allah SWT can be carried out.

Keywords: Ibadat, Natural Disasters, Difficulties, Impact, Facilitate, Disaster Victim, Sharia.

Introduction

Natural disasters, such as earthquakes, tsunamis, volcanic eruptions, typhoons, tornadoes, forest fires, landslides and floods have affected millions of people worldwide (Dina et al., 2019). Floods are a type of natural disaster caused by the effect of a very large volume or excessive deluge of water that floods a large area, including all or some of the property on it. Flash floods and river floods or monsoon floods are types of flood disasters that usually

overwhelm the states in Malaysia (Hua, 2018). Malaysia is a country that faces natural disasters, such as floods, almost every year (Wahid et al., 2017). This occurs because Malaysia usually receives a large amount of rain from October to April every year (Rustinsyah et al., 2021).

The negative and adverse impact of flood disasters faced by the community includes physical aspects, such as property damage, loss of life and loss of income (Johar et al., 2021). Besides that, disaster victims also tend to suffer from psychological disorders, such as depression, trauma and lack of motivation to continue with life post-disaster (Yusof, 2016; Akhir et al., 2017; Deviantony, 2020). Based on these effects of a natural disaster, it is not difficult to imagine that the victims of these disasters face serious repercussions.

The number of Muslim flood victims affected by natural disasters in Malaysia is relatively high based on the figures by the Department of Statistics Malaysia indicating that the majority of Malaysians are Malay-Muslims (69.9%). This is followed by recent events whereby the Muslim community in Malaysia is often affected by natural disasters such as floods and storms (Robbi et al., 2019). Therefore, Muslim victims of natural disasters need to be concerned about the implementation of Allah SWT's commands even if they are in an abnormal situation. Commands by Allah SWT to all his subjects is divided into two, namely worship and *muamalat*. However, this study only focused on the aspect of worship regarding the show of obedience to all the command in the Syariah and its relationship with Allah SWT (Hidayah, 2018).

Therefore, this study will examine the performance of acts of worship by Muslim victims involved in natural disasters.

Natural Disasters

Definition

According to the Social Welfare Department, a disaster is defined as an event that causes disruption to community activities and national affairs involving the loss of life, property damage, economic loss and environmental destruction that exceeds the community's ability to overcome and requires extensive mobilization of resources. In addition, disasters also affect the daily life routine of residents who live in areas affected by disasters (Yusoff et al., 2017). Kaniastry et al (2004) defined disaster as a basic disruption in the social context involving individuals and groups. Meanwhile, Drabek et al (2003) defined disaster as an undesirable event that causes people to experience great losses and adversities. March (2002) summarized disaster as all types of tragic or critical events that cause high impact destruction.

Natural disasters that occur around the world include tsunamis, landslides, earthquakes, avalanche, storms and floods. However, Malaysia only experiences one major natural disaster, which is the flood. Malaysia receives heavy rain over a period that causes water to rise suddenly or stagnate leading to floods (Ishak et al., 2014).

Impact of Natural Disasters - Floods

The impact of flood disasters depends on the level of the flood, whether it is small, medium or large. The higher the flood level, the greater or worse the impact of the flood disaster on the flood victims (National Weather Services, 2019). This event has resulted in various impacts on humans, whether it is physical, mental, direct or indirect (Ishak et al., 2014; Lindell et al., 2003).

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Physical Impact

Loss and damage to property is the most impactful effect on every individual affected by a flood disaster. The victim's house and possessions are either submerged in floodwaters or washed away by the current. Flood victims experience economic disruptions when assets, such as houses, vehicles, or electrical goods become irreparable. Therefore, they need funds to purchase new items that are needed to continue with life as before (Ishak et al., 2017). The flood disaster in 2014 was one of the largest in history that had resulted in huge losses estimated at RM2.85 billion and involved 500,000 flood victims and 25 deaths (Zulhisham Ishak, 2015; Ibrahim Komoo et al., 2015).

The risk of death during a flood is very high. Increase in water levels is one factor that causes death due to drowning, flood victims riding their vehicles, such as motorbikes, trying to cross flood waters, hypothermia and electric shock (Centre For Disease Control and Prevention, 2000). The estimated number of deaths due to flood disasters worldwide in the last 10 years is 53,000 people (The International Disaster Database EM-DAT, 2011).

Residents in areas affected by natural disasters will experience changes in their daily lives. The situation will change from living in normal conditions to being in a state of emergency (Yusof, 2016). Residents whose houses have been flooded beyond the safety level will be forced to move to temporary evacuation centres, such as schools, colleges, mosques or community halls. It is not easy for flood victims to decide to leave their homes and possessions. The evacuees face difficulties throughout their stay at the evacuation centres, which is differs from the safety and comfort of their home (Ahmad et al., 2018). Besides, flood victims experience a hectic and exhausting life with moving, tidying and cleaning their flood hit houses (Ishak et al., 2017).

The health of individuals who are involved in flood disasters is also affected by several factors. Among them are flood waters that cause faecal-oral diseases, while areas that do not have clean water sources and use the flood water that can result in diseases such as cholera, cryptosporidiosis, diarrhoea, poliomyelitis, rotavirus, typhoid fever and paratyphoid (Rahimin Affandi et al., 2016). Similar findings were detected by Vollaard et al. (2004), who found that there is a 95% probability of flood victims contracting *paratyphoid* fever. Katsuma et al. (1998) also stated that there is a 95% probability that flood waters can also contribute towards *cryptosporidiosis*.

A crowded evacuation centre with a large number of flood victims is one factor attributable to the spread of infectious diseases, such as diarrhoea, high fever and so on. Increase in the number of flood victims in evacuation centres will cause the quality of water and food to be affected and further harm the health of the residents in the evacuation centre (Hua, 2018).

Mental Impact

Depression and stress are the main psychological problems experienced by disaster victims. Losses and physical damage are factors that increase the psychological problems affecting flood disaster victims (Yusof, 2016). Tong (2004) stated that the level, type and duration of the disaster are some of the factors that affect mental health. In addition, Norris (2005) listed some of the mental disorders encountered by disaster victims, such as depression, anxiety, delirium, panic and health problems.

Said et al (2013) stated that when flood victims volunteer to move to the evacuation centre, they also face several deficiencies found at the evacuation centre, such as insufficient

food supply, personal misunderstanding among flood victims, insufficient infrastructure equipment and over-crowdedness. These deficiencies increase the pressure experienced by flood victims. Overcrowding at the evacuation centre leads to the mixing between men and women and a lack of privacy, which then creates feelings of anxiety, fear and discomfort among flood victims, especially when sleeping at night (Rahim et al., 2019).

A flood disaster is a natural phenomenon that occurs suddenly or in stages and over a period (Temrin et al., 2017). This situation triggers trauma or post-traumatic stress disorder, which is an emotional response to the situation that can lead to anxiety among flood victims (Carrol et al., 2010). For example, Ishak et al (2017) found that respondents expressed fear that the flooding will occur again.

In fact, what is even more troubling is the impact from the psychological aspect that takes a long time to recover even after the flood disaster is over (Mustaffa et al., 2021). Perveen et al (2016) found that after two months of a flood disaster, the flood victims still experienced high levels of stress and depression.

Performing The Ibadat During A Natural Disaster

Just as the command to worship in Islam includes the whole of human life, the responsibility is also borne by all Muslims. A Muslim worships Allah SWT in various ways, either through the mind, heart, mouth, hearing, seeing or through all the senses, including all the appendages, sacrificing property and oneself as well as differentiating between family and nation.

Worship is performed orally through zikr, recitations, prayers, tasbih, tahlil and takbir, as exhorted by Allah SWT in the following verse

يَا أَيُّهَا الَّذِينَ آمَنُوا اذْكُرُوا اللَّهَ ذِكْرًا كَثِيرًا (41) وَسَبِّحُوهُ بُكْرَةً وَأَصِيلا(42)

(Al-Quran, al-Ahzab 33:41-42)

Meaning

"O believers! Always remember Allah often, and glorify Him morning and evening"

Performing acts of worship uses the entire body, either through self-restraint or by refusing to give-in to the pleasures and lusts of the body, such as fasting. As for the movements, actions and activities, such as prayers, it involves the whole body, including the mouth, body, mind and heart. While the sacrifice of the self, heart, seeking Allah SWT's mercy by preaching in the name of Allah SWT, doing good and abstaining from evil, as well as contending against disbelief and hypocrisy to vehemently uphold the declaration (*kalimah*) to Allah SWT while despising the words of the infidels.

Worship is the Creator's right to His creation, which is the human race. The demand for worship in religion is a demand with a purpose and meaning, not a demand for a measure or means. Obeying Allah SWT's commands and pledging loyalty to His commands is the ultimate demand. Therefore, mankind is required to perform worship practices as demanded before performing other tasks in life (Al-Qardawi, 2007). A Muslim's whole life is guided by various commands that have been exhorted and established by Allah SWT, especially the element of worship (Baharudin, 2021). The responsibility to worship Allah SWT is contained in the exhortations of Allah SWT, as follows:

وَمَا خَلَقْتُ الْجِنَّ وَالْإِنْسَ إِلَّا لِيَعْبُدُونِ

(Al-Quran, az-Zariyat 51:56) Meaning

"I did not create jinn and humans except to worship Me"

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There are various forms of commands to worship that have been established by Allah SWT in Islamic law. Worship that must be performed by Muslims involves either the whole body or by spending one's wealth, or conversely, a combination of the whole-body and also the spending of wealth (Baharudin, 2021). Prayer, fasting, zakat, and performing the Hajj are acts of worship that must be performed by Muslims in their daily lives or otherwise stipulated, regardless of the situation (Samee-Ullah et al., 2018).

Conflict Faced by Natural Disaster Victims When Performing the Ibadat (Worship)

Subri et al. (2016) investigated the level of understanding of Islamic jurisprudence (*fiqh*) among flood victims in evacuation centres and found that the topic of *tayammum*, and the *qasar* method of combining prayer sessions (*solat jamak qasar*) was an issue among flood victims. Flood victims are in a different predicament and various problems arise from the impact of the flood disaster.

The main issue faced by flood victims when wanting to perform prayers, whether they are sheltering in evacuation centres or otherwise, is the lack of a clean source of water. Clean water is the main resource that humans need for daily use and to continue living (See et al., 2017). Therefore, water is included in the list of basic needs that should be provided to flood victims while stationed in temporary evacuation centres (Kitano et al., 2020; The Sphere Handbook 2018; Claire Smith et al., 2015; Somasundram et al., 2014; Havidan Rodriguez et al., 2007; Davis, 1977; Department of Social Welfare).

All human beings need water in their daily lives, the main purpose being to nourish one's life for survival. While the importance of clean water for Muslims is not only for daily use, but also assists in purification and ablution before performing prayers (Mokhtar et al., 2012). Usually, every time a flood disaster hits an area, the authorities will cut off most of the clean water supply and limit the provision of clean water (Said et al., 2019). This situation creates difficulties for flood victims who need clean water. However, at the same time, flood victims cannot use flood water as a substitute for clean water because it could be contaminated with faeces and garbage that could result in victims contracting various diseases (Habibah et al., 2015).

In addition, there is a lack of infrastructure and basic requirements provided at evacuation centres. Increase in the number of flood victims results in overcrowding and further mixing between men and women (Ishak et al., 2017). This situation is caused by the design of the evacuation centre that does not include the element of privacy according to Islamic teachings (Rahim et al., 2019). This issue has an impact on the covering one's *aurat* in crowded places that lack privacy in the form of screens, partitions or tents that can help these victims carry out these responsibilities in private (Subri et al., 2016).

The Position of Natural Disaster Victims When Performing Their Worship Practices During a Natural Disaster

In general, flood disasters do cause physical destruction besides making it difficult for Muslim flood victims to properly perform their acts of worship (Wahid et al., 2017). Therefore, Allah SWT, with His nature of ar-Rahim, will not allow His subjects to face difficulties when carrying out His commands. Allah SWT has formulated all the laws and regulations in the best way possible according to each and every condition or situation encountered by his subjects (Johar et al., 2021). Gunardi et al (2019) stated that *rukhsah* is one form of relief provided to flood victims who are in a precarious position because they cannot perform their worship practices properly due to the impact of the flood.

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Among the most effective commands pertaining to daily prayers in times of a flood disaster is *taharah* before performing the prayers. Therefore, Islamic Syariah provides relief for flood victims by implementing the following procedures.

Taharah (Cleanliness or Purification)

Rahimin et al. (2016) had investigated the use of flood water from a Maqasid al-Shariah perspective. A flood disaster usually results in the lack of clean water, so Muslim flood victims are forced to use flood water for *taharah* purposes. However, the cleanliness of the flood water is undoubtfully questionable because it most probably has been contaminated withal sorts of contaminants, such as faeces, dirt, fuel etc. In addition, flood waters can also affect human health because the warning by the health department states that flood waters could cause infectious diseases, food poisoning, cholera, typhoid fever, leptospirosis (from rat urine), Hepatitis A, dysentery and Escherichia coli (E. coli).

Therefore, Habibah et al (2015) helped explain the Islamic law pertaining to whether it is halal or haram to use flood water for purification and drinking based on the odour, colour and taste of flood water. Hence, if a flood disaster occurs, one cannot categorize all flood water as unsuitable from an Islamic perspective. Although the level of cleanliness of the flood water is undetermined and could cause harm to anyone who uses it, however, the level of harm is not similar to that caused by the consumption of any poison that could result in immediate death or suffering. This is because the risk of the flood water can be reduced by boiling it first to kill harmful bacteria and germs. This method would enable the treated flood water to be used for *taharah*, ablution, drinking or other daily uses.

Solat

Setiyawan Gunardi et al (2019) had discussed the issue of disaster victims who faced difficulties when performing obligatory prayers. Disaster victims are allowed to apply the *rukhsah* principle in regards to prayers when they are in situations like heavy rain, strong winds, floods, earthquakes and so on. Religious scholars allow the combining of two prayer sessions into one (*solat jamak*) due to illness or certain unforeseen but acceptable circumstances. Robbi et al (2019) stated that communities affected by a flood disaster are allowed to combine two prayer sessions into one (*solat jamak*) without *qasar*, as stipulated in a fatwa issued by the Perlis State Fatwa Committee during a meeting from 20-21 October 2017. The fatwa aimed to facilitate those who want to perform congregational prayers at the mosque but are unable to do so because of the flood situation.

Setiyawan Gunardi et al (2019) also mentioned about combining obligatory and Friday prayers during a natural disaster. There are two methods for performing combined obligatory prayers (*solat jamak*) (Al-Hisniyy, 1994), as mentioned below.

Taqdim Prayers (Jamak Taqdim)

Performing two prayer times in the first prayer time, either performing Zohor prayer and Asr prayer in Zohor time or Maghrib prayer and Isyak prayer in Maghrib time.

Performing two prayer sessions or times combined into one prayer session or time, either performing Zohor and Asr prayers during the Zohor prayer session/time or Maghrib and Isyak prayers during the Maghrib prayer session/time.

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Ta'khir Prayers (Jamak Ta'khir)

Performing two prayer times in one second prayer time, either performing Zohor prayer and Asr prayer in Asr time or Maghrib prayer and Isyak prayer in Isyak time. The relief of increasing the number of obligatory prayers is given to flood victims and officers who carry out their duties during the period of natural disasters. This permission when in an urgent situation such as saving oneself or property during a disaster. They can make an estimate of any possibility that will happen, if there is an opportunity to perform plural prayers first or anticipate that there will be difficulties in performing plural prayers later, then they are encouraged to pray plural prayers, the same is the case otherwise.

Combining two prayer times into one session or time and performed at the second prayer time, such as performing Zohor and Asr prayers during the Asr prayer time or Maghrib and Isyak prayers at the Isyak prayer time. This relief of combining the two obligatory prayers is afforded to flood victims and officers carrying out their duties during natural disasters. This permission is also applicable in an urgent situation, such as saving oneself or property during a disaster. Affected individuals can make an estimate of what could possibly happen; thus, if there is an opportunity to perform the *taqdim* prayers first or if they foresee some difficulties in performing *ta'akir* prayers later, then they are encouraged to perform the *taqdim* prayers, and vice versa.

Next is the implementation of Friday prayers during disasters. There are two different legal situations regarding the performing of Friday prayers. Al-Sharbiniyy (1994) stated that it is obligatory for all Muslim men to perform Friday prayers in mosques and nearby surau as long as they do not face any difficulties in doing so. However, if they face any difficulty in performing their Friday prayers, in the case of flood victims, the management of the evacuation centre is advised to make efforts so that Friday prayers can be performed at the centre itself. In this case, it is necessary to contact the local religious authority, such as the Mufti's Department, for special approval to conduct Friday prayers at the evacuation centre. However, if it is difficult to contact the local religious authority or if the application is not approved, then the Syariah law related to performing Friday prayers changes and it becomes non-mandatory and the flood victims only have to perform normal Zohor prayers at the centre.

Several previous studies (Athar al-Taghayyurat al-Bi'yyah fi Ahkam al-Ibadat al-Shari'yyah Dirasah Fiqhiyyah Muqaranahi, 2010, Ahkam al-Ibadat al-Khasah bi al-Mutadrrin min al-Fidanat: Dirasah Fiqhiyyah Tahliliyat, 2018, Athar al-Fidhanat wa al-Syul fi al-Ibadat: Dirasah Fiqhiyyah Tahliliyat, 2017) and books have examined the aspect of worship during disasters and environmental changes. The authors had provided explanations related to changes in the law and the implementation of basic acts of worship, such as taharah, prayers, fasting, zakat and Hajj during changes in the weather and environment.

Authors of some books (Sharia and Civil Legal Framework Against Humanitarian and Religious Issues Due to Natural Disasters, 2019, Guide, Methods and Implementation of Prayers During Disasters, 2022, Prayer Guides When Floods (e-BOOK), and Fiqh Natural Disasters, 2022) had clearly highlighted the procedures for performing acts of worship, such as prayers and purification, during natural disasters. In addition, there is a mobile application called Flood Fiqh or FIBA, which facilitates the community when they are faced with a flood disaster, whereby they only need to download the application from PlayStore in their smartphones and use it as a reference when they want to perform acts of worship.

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Conclusion

Mankind was created and put on this earth and entrusted with a task, which is to only worship Allah SWT. Their basic task is mainly to perform the mandatory acts of worship in their daily lives, such as prayers, fasting, zakat and Hajj. Every command of worship that has been established by Allah SWT must be implemented in whatever situation mankind is facing. This is because when a person is in an abnormal situation, he will definitely find it difficult to perform acts of worship. However, Islam is a religion of mercy that grants some kind of relief (*rukhsah*) to anyone who is in a state of infirmity when they want to perform acts of worship so that they can perform them with minimal difficulty. Therefore, no one can blame adversity and use it as an excuse for not performing acts of worship prescribed by Allah SWT.

In reference to the flood disaster, it is a natural phenomenon that recurs almost every year due to Malaysia's geographical factors, namely the heavy monsoon rains from November to March. Individuals involved in flood disasters are usually prone to negative impacts, either from a physical or mental aspect or both. This impact puts flood victims in a difficult situation, especially Muslim flood victims. These victims find it difficult to perform acts of worship, such as taharah, prayer, fasting, zakat and Hajj due to factors such as lack of clean water, congestion at evacuation centres, the mixing of men and women, and a lack of privacy. This is coupled with the emergence of numerous questions posed by flood victims related to *fiqh* issues every time a flood disaster strikes.

Hence, there are several previous studies, books and smart phone applications that can act as references and help flood victims when they want to perform acts of worship in a flood disaster situation. Even if they are facing the adversities of a flood, Muslims are still subjected to mandatory acts of worship. The only thing that changes is the implementation procedure, which is made easier to implement depending on the situation at that time and in compliance with the Shariah rulings.

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References

Al-Quran

- Ahmad, Z., Hassan, N. F. N., Hamid, A. C., Rahman, B. A., Baharuddin, N. S., & Mohamad, Z. (2018). Assessing the Effects of Physical and Mental Health on Quality of Life at Flood Transfer Center. *International Journal of Business and Management*, 2(1), 78-82.
- Akhir, N. M., Azman, A., Hassan, N., & Akhir, N. H. (2017). Kajian penelitian masalah mangsa bencana banjir disember 2014 di Kelantan. *Journal of Social Sciences and*
- Al-Sharbiniyy, A-K., Ahmad, M. (1994). *Mughni al-Mughtaj Illa Marifat Alfaz al-Minhaj*. Dar al-Kutub al-Ilmiyyah.
- Baharudin, A. H. (2021). Pengaruh Cuaca dan Iklim terhadap Hukum: Kajian dalam Fiqh Ibadah. *Jurnal Pengajian Islam*, *14*(2), 136-144.
- Carroll, B., Balogh, R., Morbey, H., & Araoz, G. (2010). Health and social impacts of a flood disaster: responding to needs and implications for practice. *Disasters*, *34*(4), 1045-1063.

- Centers for Disease Control and Prevention (CDC). (2000). Morbidity and mortality associated with Hurricane Floyd--North Carolina, September-October 1999. MMWR Morb Mortal Wkly Rep. 2000 May 5; 49(17):369-72.
- Smith, C., & Parsons, C. (2015). Preferred Sheltering Practices for Emergency Sheltering in Australia. Australian Red Cross The Power Of Humanity, Australian and New Zealand Disaster and Emergency Services Management Conference Broadbeach, Gold Coast (QLD), 4–5 May.
- Davis, I. (1977). Emergency Shelter. *Disasters*, 1(1), 23-40.
- Deviantony, F. (2020). Studi Fenomenologi: Pengalaman Resiliensi Petani Paska Banjir Dan Longsor Desa Klungkung. *Jurnal Ilmiah Media Husada, 9*(2), 50-59.
- Drabek, T. E., & McEntire, D. A. (2003). Emergent phenomena and the sociology of disaster: lessons, trends and opportunities from the research literature. *Disaster Prevention and Management: An International Journal, 12*(2), 97-112.
- Habibah, A. W., Nurhidayah, M. S., & Mohd Anuar, R. (2015). Penggunaan air banjir ketika bencana banjir: Kajian menurut perspektif halal haram.
- Havidan Rodriguez, Enrico L & Quarantelli, Russell R. Dvnes. (2007). *Handbooks of Disaster Research*. New York: Springer Science Business Media, LLC.
- Hua, A. K. (2018). Persepsi Penduduk Terhadap Faktor Luaran Bencana Banjir Monsun: Kajian Kes di Kota Bharu, Kelantan: Residential Perceptions towards External Factor on Monsoon Flood Disaster: A Case Study in Kota Bharu, Kelantan. *GEOGRAFI*, 6(1), 1-7.
- Ibrahim Komoo, Edy Tonnizam Mohamad & Mohd Zulhafiz Said. (2015). *Bencana Banjir 2014: Faktor, Respons Dasar dan Penyelesaian Bersepadu*. University Teknologi Malaysia.
- Ishak, N. S., Dali, A. M., & Razak, M. R. A. (2014). Sejarah Banjir Besardi Semenanjung Malaysia, 1926–1971: Flood History in Peninsular Malaysia, 1926–1971. *Perspektif Jurnal Sains Sosial dan Kemanusiaan*, 6(3), 54-67.
- Johar, M. H. M., Meerangani, K. A., Bohari, F. N. M., & Ismon, A. M. (2021). Pengurusan Risiko Bencana Alam Berteraskan Maqasid Syariah: Satu Sorotan Literatur. *Jurnal'Ulwan*, 6(1), 191-201.
- Kaniastry, K., & Norris, F. N., (2004). Social support in the aftermath of disaster, catastrophe and acts of terrorism: altruistic, overwhelmed, uncertain, antagonistic and patriotic communities. United Kingdom: Cambridge University Press.
- Katsumata, T., Hosea, D., Wasito, E. B., Kohno, S., Hara, K., Soeparto, P., & Ranuh, I. G. (1998). Cryptosporidiosis in Indonesia: a hospital-based study and a community-based survey. *The American journal of tropical medicine and hygiene*, *59*(4), 628-632.
- Kitano, H., Kako, M., Tsuga, K., Nikawa, H., Mikami, Y., Yamashita, H., ... & Ohge, H. (2020). Developing new information sheets for evacuees and evacuation centers to be used during all natural disaster phases. *Prehospital and Disaster Medicine*, *35*(6), 683-687.
- Lindell, M. K., & Prater, C. S. (2003). Assessing community impacts of natural disasters. *Natural hazards review*, *4*(4), 176-185.
- Robbi, M. A. A., Nasir, M. N., & Subri, M. I. (2019). Pendekatan Maslahah dalam Pemfatwaan di Malaysia: Kajian Terhadap Fatwa Terpilih: The Maslahah Approach in Ruling an Appoint of Islamic Law in Malaysia : A Study on Several Fatwas. Journal of Fatwa Management and Research, 15(1), 1-21.
- March, G. (2002). *Natural disasters and the impacts on health. Summer Student with ICLR*. University of Western Ontario.
- Mesyuarat Jawatankuasa Fatwa Negeri Pulau Pinang. (2022). *Panduan, Kaedah dan Pelaksanaan Solat ketika Bencana*. Pulau Pinang: Jabatan Mufti Negeri Pulau Pinang.

- Mokhtar, M. I., & Abdullah, R. (2012). Undang-Undang Air Islam: Analisis Komparatif Terhadap Aspek Kualiti Air: Islamic Law Of Water: Comparative Analysis Of The Quality Aspects Of Water. *Jurnal Syariah*, 20(2), 185-218.
- Tuasikal, M. A. (2021). *Panduan Shalat Ketika Banjir*. Rumaysho (E-BOOK). https://docs.google.com/viewerng/viewer?url=https://rumaysho.com/wpcontent/uploads/2021/01/Panduan-Shalat-Ketika-Banjir.pdf
- Mustaffa, C. S., & Khalid, M. S. (2021). Kesejahteraan Psikologi Mangsa Bencana Di Penempatan Semula Komuniti Mangsa Bencana Banjir. *Asian People Journal (APJ)*, 4(2), 127-144.
- National Weather Services. (2019). National Weather Service Manual 10-950. *Operations and Services Water Resources Services Program*. Definitions and General Terminology.
- Norris, F. H. (2005) Range, magnitude and duration of the effects of disasters on mental health. Retrieved From http://www/redmh.org/research/general/REDMH_effects.pdf. Accessed 25 January 2023.
- Hidayah, N. (2018). Representasi Golongan Anti Vaksin Terhadap Maslahah Menurut Perspektif Pakar Perundangan Islam. Bangi: Jabatan Pengajian Islam.
- Perveen, A., Khan, R., Ali, S. M., Saad, F., & Waseem, M. (2016). Gender Based Recovery Strategies of Post Flood Victims, Evaluative Survey in Kelantan, Malaysia 2015. *Mediterranean Journal of Social Sciences*, 7(1 S1), 11.
- Rahim, A. A., & Seman, W. M. A. W. (2019). Concept of privacy from islamic perspective in flood evacuation centre. *PLANNING MALAYSIA*, *17*.
- Robbi, A. A. M., Nasir, N. M., & Subri, I. M. (2019). Pendekatan Maslahah dalam Pemfatwaan di Malaysia: Kajian Terhadap Fatwa Terpilih. *Journal of Fatwa Management and Research*, 15(1), 1-21.
- Rustinsyah, R., Prasetyo, R. A., & Adib, M. (2021). Social capital for flood disaster management: Case study of flooding in a village of Bengawan Solo Riverbank, Tuban, East Java Province. *International Journal of Disaster Risk Reduction*, *52*, 1-27.
- Said, M. Z., Gapor, S. A., Samian, M. N., & Abd Aziz, A. M. (2013). Konflik di pusat pemindahan banjir: Kajian kes di Daerah Padang Terap, Kedah. *Malaysian Journal of Society and Space*, *9*(1), 69-78.
- Said, N., Khin, T. A., & Nurizzati, A. (2019). Development of A Disaster Kit Based on A Cultural Context for Flood Disaster Relief and Preparedness. *IIUM Medical Journal Malaysia*, 18(1), 89-96.
- See, K. L., Nayan, N., & Rahaman, Z. A. (2017). Flood disaster water supply: a review of issues and challenges in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 7(10), 525-532.
- Somasundaram, T., & Jayne Davies, B. (2014). Collaboration to improve evacuation centre operations in Queensland. *International Journal of Disaster Resilience in the Built Environment*, 5(3), 305-317.
- Sphere Association. (2018). *The Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response*. Geneva: Switzerland. www.spherestandards.org/handbook
- Subri, I. M., Razal, W. M. F. A. W., Said, W. M., Ahmad, N. M., Shaharuddin, A., Aziz, M. A. A.,
 ... & Jailani, B. (2016). Kefahaman Fiqh di Pusat Pemindahan Mangsa Banjir: Kajian
 Perintis di Daerah Temerloh dan Maran, Pahang. *Journal of Fatwa Management and Research*, 8, 44-53.

- Temrin, S. N. A., & Awang, A. (2017). Bencana Banjir dan Tahap Pengetahuan Penduduk Terhadap Pengurusan Banjir di Serian Sarawak. *Malaysian Journal of Society and Space*, 13(4), 22-36.
- Tong, A. A. K. (2009). *Psychological Inventions in Disaster Management*. UK: The United Center of Emotional Health and Positive Living.
- Vollaard, A. M., Ali, S., van Asten, H. A., Widjaja, S., Visser, L. G., Surjadi, C., & van Dissel, J. T. (2004). Risk factors for typhoid and paratyphoid fever in Jakarta, Indonesia. Jama, 291(21), 2607-2615.
- Wahid, H. A., Ramli, M. A., Razak, M. I. A., & Zulkepli, M. I. S. (2017). Determination of Zakat recipient to flood victims. *International Journal of Academic Research in Business and Social Sciences*, 7(12), 1289-1304.
- Yusof, N. B. (2016). Pengurusan elemen psikologikal sebagai persediaan menghadapi bencana: Satu kajian kualitatif terhadap mangsa banjir di kelantan (management of psychological elements as preparation in facing disasters: A qualitative study of flood victims in kelantan). Jurnal Psikologi Malaysia, 30(2).