



## Actualization of Environmental Education According to the Qur'an Through the SWALIBA Program at Madrasah Aliyah Darul Ilmi

Muhammad Efendi<sup>1\*</sup>, Nasruddin<sup>2</sup>, Muniratul Mukaramah<sup>3</sup>, Asse Padly<sup>4</sup>,  
Muhammad Sulaiman Jazuli<sup>5</sup>

<sup>1,2,4,5</sup>Geography Study Program, Lambung Mangkurat University, Indonesia.

<sup>3</sup>Darul Ilmi Islamic Senior High School, Indonesia

### Article History:

Received : 2022-10-08

Revised : 2022-11-29

Accepted : 2022-12-09

Published : 2022-12-30

### Keywords:

Actualization; Environmental education;  
Al-Qur'an; SWALIBA Program

### \*Correspondence Address:

muhammad.efendi@ulm.ac.id

**Abstract:** Schools with Environmental Insight and Disaster Mitigation are schools that have a commitment and systematically internalize environmental values and disaster preparedness into all school activities. Madrasah Aliyah Darul Ilmi is in a transitional area of peat swamp with a plain area type that is very prone to disasters, the topography is very risky for floods, cyclones, and land fires. This study used a descriptive method with the approach of (1) counseling and discussion; (2) training; (3) simulation; (4) assistance; and (5) evaluation. Furthermore, the stages in this approach are tested through a questionnaire and visualized in the form of percentage data (%). The results obtained in the form of the level of understanding and attitudes of students towards the actualization of environmental education according to the Qur'an through the SWALIBA program. The results of this study are described as follows: (1) on the indicators of the importance of the environment for the life of students' ability to actualize themselves is Very Good with an accumulation percentage of 96.23%, this percentage has a correlation with very good knowledge and attitudes towards the environment and able to actualize it in life. (2) on indicators of sensitivity and understanding of disaster mitigation, students' actualization abilities are classified as Good with an accumulation percentage of 89.48%. This percentage correlates with the knowledge and attitudes shown by students during the school environment.

## Introduction

School with environmental insight and disaster mitigation (SWALIBA) is one of the efforts to introduce disaster prevention and environmental protection in schools. The SWALIBA program is a learning program based on knowledge and insight about the environment and disasters that can be held at all levels of education (Efendi et al., 2022). SWALIBA is a school with educational programs and activities that lead to environmental awareness, wisdom and disaster reduction, such as; the development of green school policies and disaster mitigation, the development of green curriculum and disaster mitigation (Dewi, 2015). Furthermore, the SWALIBA program can also be substituted through the development of participatory-based extracurricular activities and the development of school support facilities (Dhahrul, 2016). Two important aspects of SWALIBA are environmental education and disaster, both of which are mutually sustainable (Setyaningsih & Indrayati, 2015).

Geopositionally, Madrasah Aliyah Darul Ilmi is a school located in the Lianggang sub-district, its area is in direct contact with Gambut District (Banjar Regency), Bati-Bati District (Tanah Laut Regency) which territory has a high potential for forest and land fire activities. Madrasah Aliyah Darul Ilmi is in a transitional area of peat swamp with plains, this area is very prone to disasters (Efendi, Putra, et al., 2021). The topography is very risky for floods, cyclones, and land fires. Land fires during the dry season are the biggest threat that often occurs around Madrasah Aliyah Darul Ilmi environment (Efendi, Prayoga, et al., 2021).

According to the head of Banjarbaru Regional Disaster Relief Agency in the socialization of the 2020 Karhutla said that the city of Banjarbaru often receives the effects of smoke resulting from the forest and land fires that occur in the surrounding area, then he invites related parties, especially schools in Banjarbaru environment, to be active in socializing about the dangers and losses due to the forest and land fires. Pollution events resulting from forest and land fires (KARHUTLA) are so acute that they have serious economic and social impacts, including school closures (Nasruddin; Efendi, 2022), flight cancellations and other health problems, especially the increasing cases of acute respiratory infections (ISPA).

Furthermore, the Qur'an regarding the actualization of environmental education is also explained and said by Allah SWT in Surah Ar-Rum verses 41-42;

ظَهَرَ الْفَسَادُ فِي الْبَرِّ وَالْبَحْرِ بِمَا كَسَبَتْ أَيْدِي النَّاسِ لِيُذِيقَهُمْ بَعْضَ الَّذِي عَمِلُوا لَعَلَّهُمْ يَرْجِعُونَ

*"Mischievous has appeared on land and sea because of (the deed) that the hands of men have earned; that ((Allah)) may give them a taste of some of their deeds: in order that they may turn back (from Evil)" (Surah Ar-Rum verse 41)*

It can be seen that the influence of the environment is very important for humans, then that must be done is to make changes that can restore or seek to create natural sustainability again such as maintaining and preserving the environment for human survival itself. So, humans have to really learn from previous people.

قُلْ سِيرُوا فِي الْأَرْضِ فَانظُرُوا كَيْفَ كَانَ عَاقِبَةُ الَّذِينَ مِن قَبْلُ. كَانُوا أَكْثَرَهُمْ مُّشْرِكِينَ ﴿٤٢﴾

*"Say (Muhammad) "Travel through the earth and see what was the end of those before (you): Most of them worshipped others besides Allah" (Surah Ar-Rum Verse 42)*

Al-Qur'an Surah Ar Rum verse 42 explains the command to study the history of the previous nations in the various calamities that befell them because of their actions and polytheism, they do not want to serve themselves to Allah, instead to other than Allah and their desires (Adetria et al., 2016).

Furthermore, in the provisions of the legislation of the Republic of Indonesia number 20 of 2003 concerning the national education system article 5 paragraph 1 reads, every citizen has the same right to obtain a quality education, which was further revealed

in law number 24 of 2007 concerning disaster management in Article 26 paragraph 1.B which reads that everyone has the right to get education, training, and skills in the implementation of disaster management, while in Article 27 everyone is obliged to (1) maintain a harmonious social life of the community, maintain balance, harmony, and sustainability of environmental function; (2) carry out disaster management activities; and (3) provide correct information to the public regarding disaster management (Utami, 2021).

Reducing disaster risk can be implemented through increasing awareness and increasing capacity in dealing with disaster threats, and/or implementing physical and non-physical efforts by community members in a proactive, participatory, and organized manner (Setyowati, 2019). In general, the objectives of community-based disaster risk reduction or learning communities (school residents) can be carried out through the following stages: (1) Increasing the readiness of the learning community in community-based disaster risk reduction; (2) Improving the capacity of the learning community in disaster risk reduction-based development; (3) Develop a learning community development plan based on disaster risk reduction in a participatory manner and (4) Implement a development model based on disaster risk reduction (Hayudityas, 2020).

## Method

This study used a descriptive method with the approach to measure students' understanding and attitudes towards the actualization of environmental education according to the Qur'an through the SWALIBA program as follows: (1) counseling and discussion; (2) training; (3) simulation; (4) assistance; and (5) evaluation. Furthermore, the stages in this approach are tested through a questionnaire and visualized in the form of a percentage (%), the results obtained in the form of the level of understanding and attitudes of students towards the actualization of environmental education according to the Qur'an through the SWALIBA program.

The actualization succes measurement of environmental education according to the Qur'an through the SWALIBA program used the following assessment criteria: (a) If the evaluation score is between 80 - 100 = very good; (b) If the evaluation value is between 70 - 79 = good; (c) If the evaluation value ranges from 56 - 69 = sufficient; and (d) If the evaluation value is less than or equal to 55 = less. The evaluation was also carried out on the supporting and inhibiting factors in the actualization of environmental education according to the Qur'an through the SWALIBA program at Madrasah Aliyah Darul Ilmi, Banjarbaru. So that, in the future it can be improved. The sample used by the author amounted to 53 respondents consisting of class X, XI, and XII students with random sampling based on Sugiyono (2012), the author used a rate of 10% of 527 students in Madrasah Aliyah Darul Ilmi.

Furthermore, the evaluation of the actualization of environmental education

according to the Qur'an through the SWALIBA program is an assessment of the absorption of the material in the form of a given theory and the absorption of individuals independently (Efendi, 2014). While the material seen for attitude change is seriousness in participating in counseling, training, simulations, interests, and emotions. The evaluation of success is also carried out by comparing the level of knowledge, skills, and motivation of students in applying the material that has been delivered and simulated by testing and comparing the level of knowledge before and after the activity takes place. Comparison is carried out using a two-part test (Sudjana, 2010), with the equation:

$$t_{hitung} = \frac{y-x}{s\sqrt{1/n_1+1/n_2}} \quad (1)$$

Evaluation of success in this study is to see students who apply disaster mitigation and environmental adaptation in wetlands appropriately, correctly and according to safety standards when disasters occur with the strengthening of studies of the Koran. The measurement of success uses the following assessment criteria: (a) If the evaluation value is between 80 - 100 = very good; (b) If the evaluation value is between 70 - 79 = good; (c) If the evaluation value ranges from 56 - 69 = sufficient; and (d) If the evaluation value is less than or equal to 55 = less (Sugiyono, 2016). The evaluation was also carried out on the supporting and inhibiting factors in the actualization of environmental education according to the Qur'an through the SWALIBA program for students at Madrasah Aliyah Darul Ilmi Banjarbaru, so that so that continuous learning efforts can be made as well as improvements from the implementation of a program.

## Result

The environment is the unity of space with all objects, forces, situations and living things, including humans and their actions (activities) that affect the survival and welfare of humans and other living things (KLH, 2009). According to Mahdayeni, et al(2019), environment or human living environment is the sum of all objects and conditions that exist in the space we occupy that affect our lives. In environmental studies, the term ecology is always embedded in it, ecology is used as a place or place for the environment to interact.

In the Islamic point of view, the term environment can mean al-barru, linguistically this term is synonymous with al-birru. Al-Birru termed the value of goodness. Humans can live well, but without values, humans cannot live well and in balance. The values in question are health values, national values, spiritual values and gratitude. Meanwhile, al-birru which can be interpreted as the environment is termed as ecological virtue values with good living conditions (Qomarullah, 2014).

The importance of protecting the environment and utilizing the natural resources contained in the earth has become a necessity as the word of God in the Qur'an letter al-

a'raf verse 56 which reads:

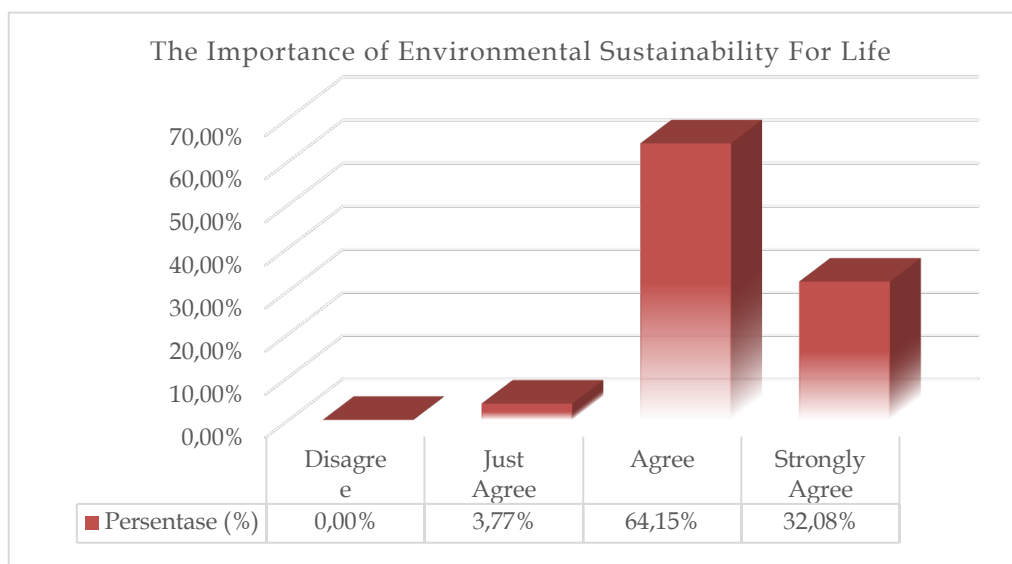
﴿٥٦﴾ وَلَا تُفْسِدُوا فِي الْأَرْضِ بَعْدَ إِصْلَاحِهَا وَادْعُوهُ خَوْفًا وَطَمَعًا إِنَّ رَحْمَتَ اللَّهِ قَرِيبٌ مِّنَ الْمُحْسِنِينَ

"And do not make mischief in this earth, after (Allah) has repaired it and pray to Him with fear (it will not be accepted) and hope that it will be granted. Verily, the mercy of Allah is near to those who do good" (Surah Al-A'raf verse 56).

The verse above shows that what Allah has given to humans is in accordance with the measure given by Allah SWT, meaning that it must be maintained and used responsibly and seriously. Based on the position of humans as caliphate on this earth, with duties and responsibilities towards the environment as a result of Divine blessing (Susanti, 2020). God, the Most Gracious and Merciful (Allah), as seen from the verse above, the attitude of environmental awareness and concern must be respected, protected and appreciated. However, humans as caliphs on earth sometimes forget their positions and obligations, thus causing damage on earth both on land and at sea.

**Table 1. Students' understanding of the importance of environmental sustainability for life**

No	Student Response	Environmental sustainability for life	Percentage (%)
1	Disagree	0	0
2	Just Agree	2	3.77%
3	Agree	34	64.15%
4	Strongly agree	17	32.08%
	Amount	53	100%



**Figure1. Graph of students' understanding of the importance of environmental sustainability for life**

Based on the distribution of data in table 1 and figure 1, it can be concluded that the responses of Madrasah Aliyah Darul Ilmi students, who actualized environmental education

according to the Qur'an through the School of Environmental Insight and Disaster Mitigation (SWALIBA) program on indicators of the importance of the environment for life belong to the category **VERY WELL**. Based on the results of data analysis, the percentage of accumulated student responses, which agreed and strongly agreed about the importance of environmental sustainability for life, was 96.23%. Furthermore, the amount of the accumulation percentage is converted to 4 criteria standard evaluation, with reference to learning success, application of knowledge and actualization of attitudes, it can be concluded that students at Madrasah Aliyah Darul Ilmi have excellent knowledge and attitudes towards the environment and are able to actualize it in life.

## Discussion

The actualization of disaster mitigation education is a form of disaster risk reduction, which can be carried out through continuous and inclusive education, through curriculum and substitution into learning materials. The purpose of educational efforts is to change the behavior of the learning community (students) (Efendi, 2021). Disaster education has the main objective of increasing protection measures by providing information about hazards and risks from disasters (Setyowati, 2019). If it is planned effectively and implemented properly, the learning community (students, teachers, school officers, TU employees, and others who are in the school environment) will be familiar with safety practices in all forms of disaster response (Wardana et al., 2019). Disaster risk reduction and prevention education should be designed to build a safe culture and resilient community.

Disaster education is one of the internal solutions to reduce the impact of disasters and make students understand how to respond and be alert when disasters occur in the school environment. (Astawa et al., 2022). There are various forms of disaster education, ranging from disaster prevention measures in schools, disaster prevention education for disaster-aware students (students), and local wisdom to deal with disasters that occur in the school environment. Disaster education is essentially an aspect of environmental life (Indahri, 2020). The concept of disaster pedagogy is an educational process about human relations with nature and the environment, including the management of human relations with the dynamics of nature and its contents (the earth), as the word of God in the Qur'an Surah al-Hadid verse 22 which reads:

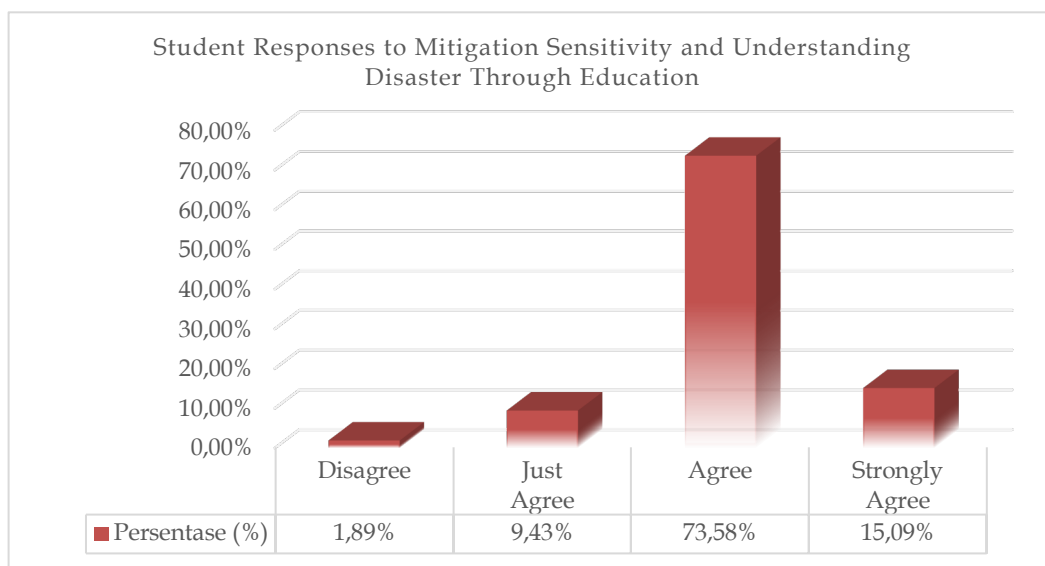
مَا أَصَابَ مِنْ مُصِيبَةٍ فِي الْأَرْضِ وَلَا فِي أَنْفُسِكُمْ إِلَّا فِي كِتَابٍ مِّنْ قَبْلِ أَنْ نَبْرَأَهَا إِنَّ ذَلِكَ عَلَى اللَّهِ  
يَسِيرٌ ﴿٢٢﴾

"Every calamity that befalls on the earth and that befalls you has been written in the Book (Lauh Mahfuzh) before We made it happen. Indeed, that is easy for Allah." (Surat al-Hadid Verse 22).

The verse above confirms that what happens in the universe, everything is the absolute will of Allah, which humans cannot refuse, in facing Allah's destiny which is kauniyah, a Muslim must be patient when he gets a calamity or painful trial. (Rahmat & Kurniadi, 2020). Linguistically, calamity means calamity or disaster. Meanwhile, in terms, disaster is all bad events or events that befall humans, both light and heavy, such as floods, fires, and landslides. Humans are basically required to be patient when experiencing a disaster and of course try (effort) by choosing a way to learn to recognize and understand natural phenomena through disaster mitigation education, to reduce the risk of disasters that occur.

**Table 2. Student response to sensitivity and understanding of disaster mitigation through education**

No	Student Response	Education Disaster mitigation	Percentage (%)
1	Disagree	1	1.9%
2	Just Agree	5	9.43%
3	Agree	39	73.58%
4	Strongly Agree	8	15.09%
Amount		53	100%



**Figure 2.** Graph of student responses to mitigation sensitivity and understanding disaster through education

Based on the distribution of the data in table 2 and figure 2 can be concluded that the response of Madrasah Aliyah Darul Ilmi students, who actualize environmental education according to the Qur'an through the School of Environmental Insight and Disaster Mitigation (SWALIBA) program on indicators of sensitivity and understanding of disaster mitigation belongs to the category VERY WELL. Based on the results of data analysis, the percentage of accumulated student responses, which agreed and strongly

agreed with the sensitivity and understanding of disaster mitigation through education, was 89.48%. Furthermore, the amount of the accumulation percentage is converted to 4 standard evaluation criteria, which refer to the success of learning, application of knowledge and actualization of attitudes.

## Conclusion

Based on the study and data analysis described above, it can be concluded that students at Madrasah Aliyah Darul Ilmi are able to actualize environmental education according to the Qur'an through the School of Environmental Insight and Disaster Mitigation (SWALIBA) program through the stages of socialization, training, simulation, and evaluation with the following details (1) on the indicators of the importance of the environment for the life of students' ability to actualize belonging to the Very Good category, with an accumulation percentage of 96.23%, this percentage has a correlation with very good knowledge and attitudes towards the environment and is able to actualize it in life. (2) on indicators of sensitivity and understanding of disaster mitigation students' actualization abilities are classified in the Good category, with an accumulation percentage of 89.48%. This percentage has a correlation with the knowledge and attitudes shown by students during the school environment.

## Acknowledgment (اختياري)

We express our highest gratitude to Madrasah Aliyah Darul Ilmi Banjarbaru City as a partner, Maulana Malik Ibrahim State Islamic University Malang as a publisher and Lambung Mangkurat University for funding the Community Partnership Program (PKM). This article is the result of research and service carried out by the academic community of the Geography Study Program at the Mandatory Serving Lecturer Program (PDWA). This activity is funded through DIPA Lambung Mangkurat University for Fiscal Year 2022 No. 023.17.2.677518/2022 dated 17 November 2021.

## Bibliography

- Adetria, R., Surana, D., & Surbiantoro, E. (2016). Moral Education Values Based on Environmental Sustainability in the Verse 41-42 of Surah Ar-Ruum of the Holy Quran. *Prosiding Pendidikan Agama Islam*, 1-6.
- Astawa, I. B. M., Budiarta, I. G., Treman, I. W., & Sarmita, I. M. (2022). Pengembangan Wawasan Warga Sekolah Laboratorium Undiksha Tentang Sekolah Berwawasan Lingkungan dan Mitigasi Bencana (SWALIBA). *WIDYA LAKSANA*, 11(1), 41-48.



- Dewi, H. A. (2015). Partisipasi siswa dalam pelaksanaan program sekolah berwawasan lingkungan dan mitigasi bencana (SWALIBA) di SMA negeri 2 Klaten tahun 2014. *Jurnal Edu Geography*, 3(7).
- Dhahrul, A. B. S. W. S. (2016). Peranan Guru Dan Siswa pada Kegiatan Perintisan Sekolah Berwawasan Lingkungan dan Mitigasi Bencana Alam (SWALIBA). *Jurnal Forum Ilmu Sosial*, 43(2), 176-188.
- Efendi, M. (2014). *Pengaruh model pembelajaran latihan penelitian terhadap hasil belajar geografi siswa SMA*. Universitas Negeri Malang.
- Efendi, M. (2021). Faktor yang Mempengaruhi Motivasi Belajar Santri di Pondok Pesantren Darul Ilmi. *Vidya Karya*, 36(2), 92-98.
- Efendi, M., Nasruddin, N., & Karani, S. (2022). Partisipasi Sekolah Terhadap Masyarakat Pembelajar Tangguh Bencana Di Lingkungan Lahan Basah. *JPIG (Jurnal Pendidikan Dan Ilmu Geografi)*, 7(2), 97-109.
- Efendi, M., Prayoga, K. R., & Mukaramah, M. (2021). Tanggapan Masyarakat terhadap Pondok Pesantren Darul Ilmi dalam perspektif pendidikan. *Jurnal Teori Dan Praksis Pembelajaran IPS*, 6(2), 69-77.
- Efendi, M., Putra, S. A., & Mukaramah, M. (2021). Mapping Students' Interest in Selecting Religious Programs in Madrasah Aliyah Darul Ilmi Banjarbaru. *Abjadia*, 6(2), 160-169.
- Hayudityas, B. (2020). Pentingnya penerapan pendidikan mitigasi bencana di Sekolah untuk mengetahui kesiapsiagaan peserta didik. *Jurnal Edukasi Nonformal*, 1(2), 94-102.
- Indahri, Y. (2020). Pengembangan Pendidikan Lingkungan Hidup melalui Program Adiwiyata (Studi di Kota Surabaya). *Aspirasi: Jurnal Masalah-Masalah Sosial I*, 11(2), 121-134.
- KLH. (2009). Peraturan Menteri Negara Lingkungan Hidup Nomor 17 Tahun 2009 Tentang Pedoman Penentuan Daya Dukung Lingkungan Hidup Dalam Penataan Ruang Wilayah. *Jakarta (ID): Kementerian Lingkungan Hidup*.
- Mahdayeni, M., Alhaddad, M. R., & Saleh, A. S. (2019). Manusia dan Kebudayaan (Manusia dan Sejarah Kebudayaan, Manusia dalam Keanekaragaman Budaya dan Peradaban, Manusia dan Sumber Penghidupan). *Tadbir: Jurnal Manajemen Pendidikan Islam*, 7(2), 154-165.
- Nasruddin; Efendi, M. (2022). Pengembangan Kawasan Rawa Gambut Berbasis Ecoedutourism Di Hutan Lindung Liang Anggang. *Prosiding Seminar Nasional Lingkungan Lahan Basah*, 7(2).

- Qomarullah, M. (2014). Lingkungan Dalam Kajian Al-Quran: Krisis Lingkungan dan Penanggulangannya Perspektif Al-Quran. *Jurnal Studi Ilmu-Ilmu Al-Qur'an Dan Hadis*, 15(1), 135–158.
- Rahmat, H. K., & Kurniadi, A. (2020). Integrasi dan Interkoneksi antara Pendidikan Kebencanaan dan Nilai-Nilai Qur'ani dalam Upaya Pengurangan Risiko Bencana di Sekolah Menengah Pertama. *Prosiding Konferensi Integrasi Interkoneksi Islam Dan Sains*, 2, 455–461.
- Setyaningsih, W., & Indrayati, A. (2015). Kesiapan SMP Negeri 41 Semarang untuk Berkomitmen dan Sistematis Menginternalisasikan Nilai Lingkungan dan Sikap Kesiapsiagaan Bencana (Swaliba). *Jurnal Geografi: Media Informasi Pengembangan Dan Profesi Kegeografian*, 12(2), 182–195.
- Setyowati, D. L. (2019). *Pendidikan Kebencanaan*. Universitas Negeri Semarang.
- Sudjana, N. (2010). Belajar dan Faktor-faktor yang Mempengaruhinya. *Jakarta: Rineka Cipta*.
- Sugiyono. (2012). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif dan R&D* (Cet Ke 12). Alfabeta.
- Sugiyono, P. (2016). Metode Penelitian Manajemen (Pendekatan Kuantitatif, Kualitatif, Kombinasi (Mixed Methods), Penelitian Tindakan (Action Research, dan Penelitian Evaluasi). *Bandung: Alfabeta Cv*.
- Susanti, S. E. (2020). Epistemologi Manusia Sebagai Khalifah Di Alam Semesta. *HUMANISTIKA: Jurnal Keislaman*, 6(1), 85–99.
- Utami, R. N. (2021). Implementasi Program Sekolah Siaga Bencana di Sekolah Dasar Desa Sinaresmi Kecamatan Cisolok Kabupaten Sukabumi. *Journal Health Society*, 10(1).
- Wardana, S., Herdiansyah, H., & Wicaksono, A. (2019). Disaster risk management strategy in the environment and disaster mitigation-based school (SWALIBA). *Journal of Physics: Conference Series*, 1339(1), 12090.

