Journal of Geography Science and Education
Vol. 4., No. 2, October 2022, pp. 19-23
ISSN 2685-5801, eISSN 2685-581X
http://journal.univetbantara.ac.id/index.php/jgse/index

Can Disaster Risk Education Reduce the Impact of Disasters in Schools?

Ferani Mulianingsih [a,1,*], Puji Hardati [b,2]

[a] Faculty of Social Science, Semarang State University, Semarang 50229, Indonesia
[b] Faculty of Social Science, Semarang State University, Semarang 50229, Indonesia
[1] feranigeographer@mail.unnes.ac.id*; [2] puji.hardati@mail.unnes.ac.id
* feranigeographer@mail.unnes.ac.id

Received 01 May 2022; accepted 16 June 2022; published 24 October 2022

ABSTRACT

One of the largest cities in Indonesia is Semarang City. This city has a very high level of disaster proneness. The following are disasters that often occur in the city of Semarang, including floods, tidal waves, landslides, and droughts. The impact of repeated disasters on urban communities is damage and loss of life. However, currently disaster risk education introduces risk mitigation and disaster preparedness in minimizing the impact of disasters in urban areas. Disaster risk reduction has been included in the school curriculum. The purpose of writing this article is to examine the role of schools in disaster mitigation, disaster curriculum in schools. Empowering school-age children to understand disaster mitigation is the first step in building a disaster-aware community. So that when a disaster occurs, people no longer experience confusion and panic, because they have understood how to reduce disaster risk. School-age children are expected to be able to bring the knowledge they have learned from school and become "agents" who can build a culture of disaster awareness in their environment, so that a resilient society can be realized in dealing with disasters.

KEYWORDS

Disaster Risk Education
Reduce
Impact of Disasters
Schools

1. Introduction

Disaster management according to Law Number 24 of 2007, defines disaster as "an event or series of events that threatens and disrupts people's lives and livelihoods caused by both natural and/or non-natural factors as well as human factors, resulting in loss of life, damage to environment, property loss and psychological impact". Law Number 24 of 2007 states that disasters include natural disasters, non-long-lasting disasters, and social disasters. The United Nations Secretariat for International Strategy for Disaster Reduction states that disasters are divided into two groups, namely natural disasters and technological disasters. Natural disasters are divided into several subgroups, namely geophysics (heat waves, earthquakes, volcanic activity), meteorology (fog, extreme temperatures, storms), hydrology (tidal waves, landslides, floods), climatology (drought, land fires, melting of ice/glacial layers).), biology (animal attacks, pest attacks, epidemics), and extraterrestrial (events due to the influence of celestial bodies). Meanwhile, technological disasters are divided into industrial accidents (building collapses, explosions, chemical leaks, gas leaks, fires, poisons, radiation, oil spills), transportation accidents (road, air, rail, and water), other accidents (explosion, fire, etc.). collapse and so on) (CRED, 2009).

One of the largest cities in Indonesia is Semarang City. This city has a very high level of disaster proneness. The following are disasters that often occur in Semarang City, including floods, tidal waves, landslides, and droughts.

The location of Semarang City is geographically bordered by the Java Sea in the North, the topographical conditions of the City of Semarang consist of lowlands, hills, and coastal areas, indicating that there are various slopes and protrusions that cause potential natural disasters in Semarang City.

Semarang City disaster report data is listed on the Semarang City BPBD official website, in Figure 1 there are 432 disaster events, consisting of floods, tidal waves, landslides, cyclones, collapsed houses, fires, and fallen trees.

ISSN 2685-5801 (print) | 2685-581X (online)
Journal of Geography Science and Education
Vol. 4., No. 2, April 2022, pp. 19-23

REKAPITULASI KEJADIAN BENCANA TH. 2021
BPBD KOTA SEMARANG

No.	JENIS KEJADIAN	BULAN												JUMLAH
		Jan	Febr	Maret	April	Mei	Juni	Juli	Agst	Sept	Okt	Nop	Des	
1	Banjir	3	64	0	0	2	0	0	0	0	0	16	3	88
2	R o b	0	0	0	0	0	0	0	0	0	0	1	1	2
3	Talud Longsor	45	45	4	2	1	4	0	0	5	2	18	20	146
4	Puting Beliung	0	8	0	0	10	0	0	0	0	18	1	0	37
5	Rumah Roboh	4	3	0	3	5	0	0	3	3	4	10	0	35
6	Kebakaran	3	2	6	3	5	2	3	6	2	4	3	7	46
7	Pohon Tumbang	1	3	0	0	3	1	0	1	11	55	2	1	78
	Jumlah per bulan	56	125	10	8	26	7	3	10	21	83	51	32	
	Total kjd selama 1 thn													432

No.	DAMPAK KESELURUHAN	Jan	Febr	Maret	April	Mei	Juni	Juli	Agst	Sept	Okt	Nop	Des	KET
1	KORBAN	305	188	27	35	113	17	38	29	33	173	297		
2	LUKA - LUKA		2	2										
3	MENINGGAL		2	1					1			1	1	
4	KERUGIAN	65.000.000	35.000.000	42.500.000	20.000.000	67.000.000	5.000.000		5.000.000	114.000.000	73.000.000	50.000.000	711.500.000	

Fig1. Semarang City Disaster Data Resume 2021

The impact of an event that cannot be handled with local resources is the definition of disaster. The existence of a hazard that turns into an event is the beginning of the start of the disaster process. Perdana (2016) states that direct impacts on humans and the environment can be caused by disaster events.

Victims experience physical and mental disabilities, this is due to the number of victims who were injured as a result of the disaster. Social (2012) states that vulnerable groups are groups that are more severely affected, because of their shortcomings and weaknesses, such as infants, toddlers, and children; pregnant/breastfeeding women, persons with disabilities, and the elderly.

In recent years, several institutions and organizations such as NGOs, government institutions, and educational institutions at the national and regional levels have made various efforts in disaster education including through disaster materials in local content, training for teachers, campaigns, and advocacy, this is related to education and public awareness regarding disaster risk reduction. Wijaya and Isni (2017) state that disaster risk reduction activities have not been well coordinated and have not been integrated into a framework that can be mutually agreed upon.

The purpose of writing this article is to examine the role of school social institutions in disaster mitigation, disaster curriculum in schools. Empowering school-age children to understand disaster mitigation is the first step in building a disaster-aware community. So that when a disaster occurs, people no longer experience confusion and panic, because they have understood how to reduce disaster risk. School-age children are expected to be able to bring the knowledge they have learned from school and become "agents" who can build a culture of disaster awareness in their environment, so that a resilient society can be realized in dealing with disasters.

2. Method

The method used in this article according to Dapur Scientific (2018) is a literature study (research) by collecting library data, reading, and taking notes and processing research materials without conducting field research. The library sources used in this article are textbooks, research reports, bibliographies, scientific journals, and document indexes from related agencies.

3. Results and Discussion

The success of disaster mitigation is one of the main tests of the success of education given from generation to generation. Disaster Risk Reduction (DRR) education is a long-term activity and part of sustainable development. Through education, it is hoped that disaster risk reduction efforts can achieve broader targets and can be introduced earlier to all students, and ultimately contribute to

individual and community preparedness for disasters. Disaster Risk Prevention and Reduction Education is designed to build a safe culture and resilient society (Suharwoto, et al, 2015).

Disaster mitigation carried out at the education level in schools includes education or curriculum on disasters, as well as conducting rehearsal training (simulation) continuously to improve disaster preparedness. Currently, a program has been implemented in several schools, namely the Disaster Preparedness School (SSB) from the PAUD level to the equivalent high school level. School disaster management is a process of assessment and planning, physical protection and response capacity building designed to protect students and school staff from physical harm, minimize disruption, ensure continued education for all children, develop and maintain a culture of safety.

Disaster awareness in the community can be built through the important role of schools, building schools that are ready to face natural disasters is an effort from schools. Some of the disaster risk reduction functions owned by the school include facilitating and cooperating with the surrounding environment, improving community skills, holding refugee centers when a disaster occurs, and providing examples of earthquake-resistant school building models. Acting as an intermediary in the community who is responsible for disseminating disaster information to students' families and community members, this is related to the general awareness carried out by schools.

Children have different interpretations of disaster. Often portrays children as helpless victims in an emergency. However, children can contribute to resettlement, rehabilitation and reconstruction efforts. A competence and behavior of boys and girls of various age levels are formed based on cultural and societal differences. Various skills and knowledge, can work together, understand each other and support each other in an emergency, this is owned by small children or older children. The development of children's abilities through various exercises/simulations continuously and the provision of materials can be carried out by schools in the realm of formal education.

This article will discuss about the drought disaster. Drought and water shortages are experienced in parts of Indonesia during the dry season. The number of drought disasters seems to be expanding and increasing in Indonesia's territory from year to year. Not only is it difficult to get water for irrigation caused by the drought, but it is also difficult to get clean water, especially for daily life.

Many losses and suffering are quite heavy caused by the drought, this is shown from several experiences. Disaster risk can be reduced through several efforts, including disaster preparedness. A knowledge of drought disaster management is needed, so as not to cause social problems. It is expected that students can understand and understand the state of the environment, can do something to save themselves and the environment, so that drought disasters can be avoided.

The response and readiness of students in tackling drought disasters is low, it can worsen the impact of drought disasters. Information on the distribution of drought-prone areas is still lacking and limited, and students' awareness of the importance of climate information which is still lacking is a problem in dealing with the threat of drought. Students need an understanding of drought disasters, in order to minimize casualties and losses.

Activities in drought disaster management should consider values related to social institutions owned by communities in drought-affected areas. Every organization has its own values that are crystallized into a culture. Organizational culture is a set of values and habits that are created, believed, and standardized both formally and informally. Has a function as a guide in managing the organization and acting to achieve organizational goals.

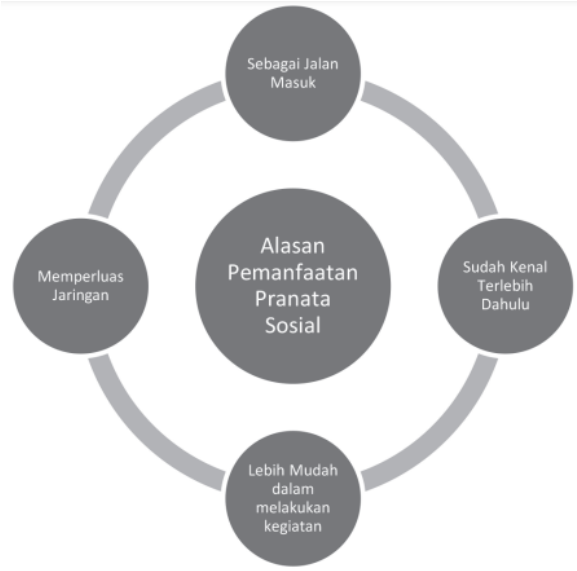

Fig 2. Reasons for Utilizing Social Institutions in Disaster Management

The reasons for the use of institutions can be seen in Fig. 2, the use of social institutions both formal and informal can familiarize environmental activists with the community and schools. The use of this social institution is because its members have the same meaning and symbol as the identity of the group. Colletta (1987) states that the shared meaning is functionally manifested through political, economic, religious, and social institutions. Habits or patterned behavior is a link between the structure and function of culture as communicated symbolically.

4. Conclusion

Given the high level of vulnerability to disasters in Indonesia, and the low state of preparedness, so that the increase in disaster knowledge must be provided early on. In line with Law Number 24 of 2007 concerning disaster management, children are included in the vulnerable category. In the education sector, with the aim of realizing a disaster-resilient generation, it is necessary to implement disaster risk reduction priorities.

The role of environmental activists, communities and schools in drought disaster management can be involved through social institutions. The use of social institutions is used by activists on the grounds of being an entry point for environmental activists in conveying environmental messages and educating the community, especially school children.

Acknowledgment

In this opportunity, the writer would like to express his gratitude to Mrs. Dr. Puji Hardati, M.Si who has guided the author. The authors thank the Journal of Geography Science and Education which has provided an opportunity for the author to study publication in this journal.

References

(n.d.). Badan Penanggulangan Bencana Daerah Kota Semarang. https://bpbd.semarangkota.go.id/po-content/uploads/RESUME_DATA_BENCANA_2021.pdf

Colletta, N J., dan U Kayam. (1987). *Kebudayaan dan Pembangunan. Sebuah Pendekatan Terhadap Antropologi Terapan di Indonesia*. Yayasan Obor Indonesia.

Dapur Ilmiah, (2018). Penelitian Literatur. (http://dapurilmiah.blogspot.co.id/2014/06/ penelitian-literatur.html)

Em-dat. (n.d.). (2009). EM-DAT | The international disasters database. https://www.emdat.be/classification

Perdana, N. (2016). *Menurunkan Resiko Bencana* (A. M. A. dan M. Nawir (ed.)). Masaggena Press.

Sosial, K. (2012). Menteri sosial republik indonesia. *Bphn*, 2008, 1–4. https://doi.org/10.1017/CBO9781107415324. 004

Suharwoto, dkk., (2015). "Modul 3. Pilar 3 – Pendidikan Pencegahan dan Pengurangan Risiko Bencana". Jakarta: Biro Perencanaan dan Kerjasama Luar Negeri Sekretariat Jenderal Kemendikbud.

Undang-*undang Republik Indonesia Nomor 24 Tahun 2007 tentang Penanggulangan Bencana Dan PP No. 21, 22, 23 Dan Perpres No. 8 tahun 2008*. (2008).

Wijaya, O., & Isni, K. (2017). *Pelatihan Penyusunan Rencana Evakuasi Bencana di SD Muhammadiyah Se-kecamatan Banguntapan , Bantul, DIY*. 1(2), 413–422.