

Implementing the Sendai Framework for Volunteers in Sidoarjo District



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ABSTRACT

Introduction: Indonesia has a myriad of potential natural disasters that will occur. In the last 10 years, for example, the same disasters have happened again in Indonesia every year. This study aimed to determine the Sendai framework implementation on volunteers in the Sidoarjo district.

Methods: This study used an analytic design with a cross sectional design. A sample size of 35 from a population of 50 was obtained by simple random sampling at the Sidoarjo Tangguh Volunteer Forum (FOREST). The independent variable is Sendai Framework, while the dependent variable is natural disaster management. Data analysis using independent T test.

Results: based on this study, most respondents showed an increase in skill after the intervention, which before intervention most respondents were having not have enough skill of disaster management (21 respondents; 60.0%) and turned into most of the respondents had good skills after the intervention (28 respondents; 80.0%). The Wilcoxon sign rank test with a significance level of = 0.05 obtained a value of = 0.01.

Conclusion: Sendai framework effectively increased disaster risk reduction capacity. Further studies are needed to assess the effectiveness of Sendai Framework in improving someone's skill in disaster management, including compounding factors related to the outcome.

Keywords: Sendai framework, volunteer, natural disaster.

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INTRODUCTION

The Sendai Framework for Disaster Risk Reduction (SFDRR) 2015-2030 is the product of intergovernmental deliberations that lasted from July 2014 to March 2015 and stakeholder engagements that started in March 2012. On March 18, 2015, the United Nations Third World Conference on Disaster Risk Reduction (3rd WCDRR) in Sendai, Japan, adopted this SFDRR concept for its agenda.¹ With the ratification of the Sendai Framework for Disaster Risk Reduction 2015-2030. The international community has had a new framework of activities related to disaster risk reduction that will serve as a guide for disaster risk reduction activities until 2030. As one of the countries that have ratified the Hyogo Framework for Action, Indonesia has also implemented efforts to reduce disaster risk. Indonesia also plays an active role in adopting the Sendai Framework for DRR so that policy implementation becomes activities and activities programs in sustainable development.²

The international community's acknowledgment of the concept of "disaster-prone countries with specific characteristics, such

as archipelagic countries, as well as countries with extensive coastlines" is one of the main issues that the Indonesian Delegation has successfully fought for. This needs to be done by all countries in the world, considering that disaster management must be carried out in synergy by involving all stakeholders at the local, national, regional and global levels. Indonesia as an archipelagic country which is in a geographical, geological, hydrological and demographic position makes Indonesia very vulnerable to various natural and non-natural disasters so that it is often referred to as a "disaster supermarket".³

Data from the National Disaster Management Agency, in 2018, as many as 2,572 natural disasters occurred in Indonesia. The number of flood disaster events throughout 2018 was 679 events; landslides occurred in 473 events, tornado disasters in 804 events, 370 forest and land fire disasters, earthquake disasters 23 events, tidal wave/abrasion disasters 34 events, 58 volcanic eruptions volcanoes, 129 droughts, 1 earthquake and 1 tsunami, and 1 tsunami. Data from BNPB shows the intensity of disaster events in East Java Province ranks second after Central Java, which is 450 events. With the incidence of floods 84,

landslides 89 events, tidal wave/abrasion 6 events, tornado 143 events, drought 20 events, forest and land fires 106 events and earthquakes 2 events.³

This problem shows that disaster management is still a major problem. It would be better if the community, especially the volunteers of the BNPB, could overcome these problems by implementing the Sendai Framework in dealing with disasters.³ Disaster management in Indonesia can still not be “all people’s business”, the understanding of disaster management, the principles of reducing disaster risk, and how the form of its practical activities has not become a common understanding. This can be demonstrated by the form of a policy born of the local government that is still not following the principles of disaster risk reduction, the tendency of the political decision of the public in choosing the head of the region that does not make the principles the reduction of the risk of disasters as the main criteria, to the day-to-day behavior of the group – the group of the community that still needs strengthening to reduce disaster risks.²

The Sendai Framework still requires socialization to be internalized in various policies, programs and disaster management activities in Indonesia (BNPB, 2015). Therefore, this study aimed to evaluate the implementation of the Sendai Framework on Volunteers in Sidoarjo Regency.

METHODS

Study Design and Data Collection

In this study, the research design used was analytic with cross-sectional. The population and sample of this research are FOREST (Forum Volunteers Sidoarjo Tangguh). A sample size of 35 from a population of 50 was obtained by simple random sampling in FOREST, with the criteria of reproductive-age volunteers. The independent variable is Sendai Framework, while the dependent variable is natural disaster management. The selection was obtained by simple random sampling

Data Analysis

Wilcoxon test utilizing the SPSS program was performed for data analysis, with a

Table 1. Distribution of Respondents Based on Pre and Post-Intervention research results, 2022

Intervention	Skills		Total
	Not Enough	Good	
Pre	21 (60%)	14 (40%)	35 (100%)
Post	7 (20%)	28 (80%)	35 (100%)
Total	28 (40%)	42 (60%)	70 (100%)

significance level of $\alpha = 0.05$. The hypothesis is rejected if the statistical test’s findings show $p > 0.05$, which indicates that there is a relationship between the independent and dependent variables.

RESULTS

The Sendai framework was implemented for volunteers in the Sidoarjo district, and this study employed a quantitative cross-sectional design to take pictures of and analyze the situation at a specific moment. 70 individuals were included in the sample for this investigation. techniques for gathering data that use source data, surveys, and a checklist. Wilcoxon sign rank test analysis was utilized during the data processing phase. The information in the table below was compiled using information from previous studies regarding the characteristics of the respondents.

It is effective at boosting the capacity for catastrophe risk reduction, as the table above demonstrates. A significant gain in ability from 40% prior to the intervention to 80% following it served as proof. With SPSS for Windows and a significance level of $\alpha = 0.05$, the Wilcoxon sign rank test findings yielded a p-value of 0.01. According to this outcome, disaster risk reduction capacities are effectively improved by the Sendai framework recommendations.

DISCUSSION

Indonesia is an archipelago country in the Ring region, a network of active volcanoes known as the Pacific Ring of Fire. One hundred twenty-seven volcanoes are still active, and 76 are hazardous. Additionally, Indonesia is situated in the confluence of three global plate zones: the Indo-Australian, Eurasian, and Pacific plates. As a result of this activity between the plates, both tectonic and volcanic earthquakes have occurred in Indonesia.⁴ Indonesia

is most susceptible to several natural catastrophes due to its natural features. Natural disasters are uncontrollable events that can happen at any moment and inflict various concrete and intangible losses to the lives of living things, including the destruction of buildings and infrastructure and the loss of human lives.⁵

The frequent occurrence of natural disasters causes casualties and increases problems in various areas, such as health, education, the economy, etc. Therefore, it is necessary to carry out various disaster management efforts. In disaster management efforts, three cycles of activities must be carried out, namely pre-disaster, during, and post-disaster; these activities are to prevent, reduce, avoid, and recover from the impact of disasters. When a disaster occurs, it is in the form of emergency response activities, and then after a disaster occurs, it is in the form of rehabilitation and reconstruction activities.⁶

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The Sendai Framework also highlights the necessity of improving disaster risk management, including national platforms, accountability for catastrophe risk management, readiness for “Rebuild Better,” recognition of stakeholders and their roles, mobilization of investment for vulnerable risks to avoid new risks, and resilience of one’s physical and mental well-being as well as one’s cultural and economic identity. It is recognized that the Regional Platform for Disaster Risk Reduction and the Global Platform for Disaster Risk Reduction serves as means for creating cross-agenda coordination, monitoring, and periodic evaluations that are transparent and consistent.⁸

Natural catastrophes continue to be a major problem. The unpredictability of the world is a menace. Whenever it takes place. From at least 1994 to 2013, disasters have been an issue that has affected every region in the world. Asia had 2,778 natural catastrophes throughout time. The international community is aware of the significance of legislation connected to natural disasters to assist nations worldwide in preventing, preparing for, and coping with catastrophes due to the numerous natural disaster occurrences that have happened.^{3,9} Various international agreements have been created based on the knowledge they have gathered from addressing disasters. The frequent event of natural disasters causes casualties and increases problems in various areas, such as health, education, the economy, etc. Therefore, it is necessary to carry out various disaster management efforts. In disaster management efforts, three cycles of activities must be carried out, namely pre-disaster, during disaster and post-disaster. These activities are to prevent, reduce, avoid, and recover from the impact of disasters. When a disaster occurs, it is in the form of emergency response activities, and then after a disaster occurs, it is in the form of rehabilitation and reconstruction activities.¹⁰

SFDRR 2015–2030 implementation is based on four action priorities, each of which has a set of objectives to be met: Understanding disaster risks is priority

number one, as it is important to accurately understand risks based on science, technology, and local intelligence; priority number two is strengthening disaster risk management to manage risk, as it is important to improve the management system in disaster response by applying the principles of participation, justice and equality, professionalism, independence, efficiency in the use of resources, and accurate targeting/effectiveness; priority number three is preventing disasters from happening in the first place; and priority number four is preventing disasters from happening again.¹¹ This research still consisted of a limitation which is several compounding variables that were not controlled yet in this study that can decrease the reliability of this study.

CONCLUSION

Based on this study, the Sendai framework was effective in increasing the capacity of disaster risk reduction. It would be better if the community, especially volunteers of the BPBN, could overcome these problems by implementing the Sendai Framework in dealing with disasters. The Sendai Framework still requires socialization to be internalized in various policies, programs and disaster management activities in Indonesia.

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CONFLICT OF INTEREST

The authors affirm that the final draft of this work and the declaration of no conflicts of interest have been approved by all authors.

AUTHOR CONTRIBUTION

The thinking about the research concepts, information acquisitions, information investigation, factual investigations, modifying the paper, and documenting the consider comes about via publication are all equally contributed to by all writers.

ETHICAL CONSIDERATION

This research has obtained another ethic certificate from the Health Research Ethics Committee of Universitas Nahdlatul Ulama Surabaya.

REFERENCES

1. UNDRR, ADPC. Disaster Risk Reduction in The Republic of Indonesia: Status Report 2020. Undrr. 2020;1–36.
2. Stefanie K, Puspita NY. Uji Reliabilitas Sendai Framework for Disaster Risk Reduction Dalam Rehabilitasi Kawasan Ekonomi Khusus Tanjung Lesung. *J Huk Ius Quia Iustum*. 2021;28(1):203–26.
3. BNPB. Kerangka Kerja Sendai Untuk Pengurangan Risiko Bencana 2015-2030 (Sendai Framework for Disaster Risk Reduction 2015-2030). *BNPB*. 2015;120(11):259.
4. Sunarti T. Pengintegrasian pengurangan risiko bencana dengan pencapaian tujuan pembangunan berkelanjutan (evaluation of integrating disaster risk reduction with post mdgs/sdgs achievement). 2015;1:37–48.
5. Kementerian PPN. Pedoman Teknis Penyusunan Rencana Aksi - Edisi II Tujuan Pembangunan Berkelanjutan/ Sustainable Development Goals (TPB/SDGs). *Kementeri PPN*. 2020;
6. Wulandari R. Riskyana Wulandari 1. *J Prodi Manaj Bencana*. 2017;3(1):23–41.
7. Faisal R. Pengembangan Model Pengurangan Risiko Bencana Melalui Kesiapsiagaan Berbasis Sekolah Di Sma Negeri 24 Bandung. *J Ilm Kebijak dan Pelayanan Pekerj Sos*. 2022;3(02):130–50. doi: [10.31595/biyan.v3i02.440](https://doi.org/10.31595/biyan.v3i02.440)
8. Yulianto S, Apriyadi RK, Aprilyanto A, Winugroho T, Ponangsera IS, Wilopo W. Histori Bencana dan Penanggulangannya di Indonesia Ditinjau Dari Perspektif Keamanan Nasional. *PENDIPA J Sci Educ*. 2021;5(2):180–7. doi: [10.31595/biyan.v3i02.440](https://doi.org/10.31595/biyan.v3i02.440)
9. Mei DII, Kasih UT. *PERGESERAN SISTEM* : 2021.
10. Winoto PMP. Analysis of factors that affect the ability in the initial treatment of injured patients with the approach of the airway, breathing, circulation, disability, exposure to the community. *Bali Med J*. 2022;11(2):566–8. doi: [10.15562/bmj.v11i2.3120](https://doi.org/10.15562/bmj.v11i2.3120)
11. Manyena B. After Sendai: Is Africa Bouncing Back or Bouncing Forward from Disasters? *Int J Disaster Risk Sci*. 2016;7(1):41–53. doi: [10.1007/s13753-016-0084-7](https://doi.org/10.1007/s13753-016-0084-7)



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