



The Role Of International *Non-Governmental Organizations* (NGOs) In Disaster Management Of Mt. Sinabung Eruption In Karo District, North Sumatra, Indonesia

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Abstract. *This study aims to determine the role of Non-Governmental Organizations (NGOs) in managing the eruption of Mount Sinabung. The eruption of Mount Sinabung in 2010 and another eruption in 2013 had a major impact on the people living around Mount Sinabung. The role of various parties was carried out, including the presence of an international Non-Governmental Organization (NGO) in Karo Regency. This paper will describe the role of NGOs using the concept of disaster management which consists of pre-disaster, emergency response, and post-disaster stages. In this study, it was found that during the pre-disaster stage the international NGOs present were FM Yoboseyo Yumen (FMYY) Japan and Mercy Malaysia. During the emergency response stage, the World Food Program (WFP) was present in Karo District. At the post-disaster stage are the United Nations Development Program (UNDP), the International Labor Organization (ILO), and the Food and Agriculture Organization (FAO). This research method used a qualitative approach with descriptive research types, and data collection through interviews and secondary data.*

Keywords: *Mount Sinabung Eruption, Disaster Management, International NGOs, Karo District North Sumatra*

Abstrak. Penelitian ini bertujuan untuk mendeskripsikan peran *Non-Governmental Organization (NGO)* dalam penanggulangan bencana erupsi Gunung Sinabung. Erupsi Gunung Sinabung pada tahun 2010 dan erupsi kembali pada tahun 2013 memberikan dampak yang besar terhadap masyarakat yang hidup di lingkaran Gunung Sinabung. Peran dari berbagai pihak dilakukan, termasuk hadirnya *Non-Governmental Organization (NGO)* internasional di Kabupaten Karo. Tulisan ini akan memaparkan peran NGO dengan menggunakan konsep manajemen bencana yang terdiri dari tahap pra bencana, tanggap darurat, dan pasca bencana. Pada penelitian ini, ditemukan bahwa pada tahap pra bencana *NGO* internasional yang hadir yaitu *FM Yoboseyo Yumen (FMYY) Jepang* dan *Mercy Malaysia*. Pada tahap tanggap darurat *World Food Programme (WFP)* hadir di Kabupaten Karo. Pada tahap pasca bencana adalah *United Nations Development Programme (UNDP)*, *International Labour Organization (ILO)*, dan *Food and Agriculture Organization (FAO)*. Metode penelitian yang digunakan dalam penelitian ini menggunakan pendekatan kualitatif dengan jenis penelitian deskriptif, dan pengumpulan data melalui wawancara dan data sekunder.

Kata Kunci : Erupsi Gunung Sinabung, Manajemen Bencana, *NGO Internasional*, Kabupaten Karo Sumatera Utara

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BACKGROUND

One of the disasters that often occurs in Indonesia is a volcanic eruption. Volcanic eruptions are part of volcanic activity known as eruptions. One of the provinces affected by the volcanic natural disaster at this time is the province of North Sumatra, in Karo Regency, which is commonly known as Tanah Karo. Karo Regency is a highland with the capital city Kabanjahe which is located 77 km from the city of Medan, North Sumatera. The area of Karo Regency is around 2,2127.25 square kilometers which stretches on a plateau with an altitude of 120-1600 m above sea level (www.karokab.go.id).

There were three eruptions of Mount Sinabung that occurred:

1. On August 27, 2010 Mount Sinabung emitted volcanic smoke and ash, at around 00.15 WIB Mount Sinabung released larvae and Mount Sinabung's status was raised to be on alert (www.esdm.go.id).
2. On September 7, 2013, Mount Sinabung erupted again with a huge eruption. Volcanic ash was sprayed up to 5,000 m in the air. From 15 September 2013 to 18 September 2013 there have been 4 eruptions (www.bnpb.go.id).
3. On May 21 2016 at 16.48 WIB Mount Sinabung erupted again by releasing hot clouds, where these hot clouds covered Gamber Village, Simpang Empat District, Karo Regency (id.wikipedia.org).

Until now, Mount Sinabung is still active and warning level. The eruption of Mount Sinabung has caused a large impact or loss for the people in Karo Regency. Previously, Mount Sinabung caused 7,266 people to flee and damaged housing, and the agricultural land of residents adjacent to Mount Sinabung which could no longer be used as a place of livelihood. The total area of 12,399.16 hectares of damaged agricultural land. This is a big loss for the people in Karo Regency (www.karokab.go.id).

The Regional Disaster Management Agency (BPBD) of Karo Regency is a regional apparatus that was formed in the context of carrying out tasks and functions for disaster management in the Karo Regency area. BPBD Karo Regency was established on January 22 2014. BPBD has 4 main functions namely prevention, mitigation, preparedness, emergency response and rehabilitation/reconstruction. Seeing the main functions in BPBD Karo Regency, where this shows that there is a *G to G* and *G to P* relationship in BPBD Karo Regency. *Government to Government (G TO G)* is cooperation between one government and another. *Government to People (G TO P)* is cooperation between government and society. The task of BPBD as a special agency dealing with disasters is to cooperate with *Non-Governmental Organization (NGO)* institutions both locally and internationally.

Based on the impact that was caused, many international *Non-Governmental Organizations* were present in Karo Regency and collaborated with the Karo Regency Government (BPBD) in assisting to handling the Sinabung eruption disaster. The cooperation of various parties will accelerate disaster management and minimize the impact of risks arising from disasters. Departing from the background above, the authors are interested in doing more in-depth research regarding “The Role of International Non-Governmental Organizations (NGOs) in Mount Sinabung Eruption Disaster Management”. This paper will be discussed using a conceptual framework for disaster management which consists of pre-disaster, emergency response, and post-disaster stages.

THEORETICAL STUDY

Disaster Management Concept

Disaster is an event or series of events that threatens and disrupts people lives and livelihoods caused, either by natural factors or human factors, resulting in casualties, environmental damage, loss of property, and psychological impacts (Anies, 2018, bnpb.go. id). Disaster management does not only start after a disaster occurs, but there are activities before a disaster (pre-disaster) occurs, which includes prevention, mitigation, impact reduction and preparedness activities which are very important to reduce the impact of a disaster. When a disaster occurs, an emergency response is held and after a disaster (post-disaster) rehabilitation and reconstruction efforts are carried out (Khambali: 2016, simdos.unud.ac.id).

Law Number 24 of 2007 concerning Disaster Management is a regulation on disaster situations in Indonesia that allows the involvement of parties other than the government. Good disaster management requires active cooperation from various parties. Therefore, the success of disaster management is inseparable from the role of various parties such as the community, volunteers, *Non-Governmental Organizations (NGOs)*, the government, and even the international community. Where the purpose of disaster management is to be able to prevent, overcome the impact of disasters including humans, property, then reduce the misery of the victim’s life, and carry out rehabilitation/reconstruction activities as an effort to recover from the impact of the Mount Sinabung eruption.

Organizational Role in Disaster Concept

The phenomenon of cooperation in the global era is now increasingly widespread, cooperation that exists between actors in international relations is not only limited to *government to government* but also between *sub-government* and between *non-government*.

This phenomenon occurs due to the limitations of an individual or country to meet their own needs. Cooperation is also divided into several indicators, one of which is in disaster. Disasters in a country cause long-term impacts on productivity, growth and the economy, therefore international cooperation in disaster is considered by many as the *ideal form* of managing humanitarian activities. Where cooperation between government authorities, international organizations, and NGO's is essential for effective disaster management. NGO's can contribute positively on disaster management, for preparedness stage on management disasters and provide more financial help to the recovery from disaster in the country (Hossain, 2020). Also in international agenda, called the World Conference on disaster reduction, which was held in Kobe (Hyogo, Japan) from 18 to 22 January 2005, was a milestone in the world's understanding of the need to implement a comprehensive disaster reduction agenda, which includes mitigation, preparedness, response, and recovery. This understanding is captured in the Hyogo Declaration and the Hyogo Framework for Action 2005-2015.

RESEARCH METHODS

The research method is descriptive qualitative, in which the writer will collect data and facts as the object of research to analyze how international NGOs are present in responding to the eruption of Mount Sinabung through disaster management. There are 2 types of data sources, namely primary and secondary data. Primary data is data obtained directly from the results of interviews obtained from informants or informants who are considered to have the potential to provide relevant and actual information in the field, and each of these informants has experience. Then secondary data is supporting data that has been processed beforehand, this data must concern the research we are doing, some secondary data sources are journals, books, government publications, and others.

RESULTS AND DISCUSSION

Impact of Mount Sinabung Eruption

The impact of the eruption of Mount Sinabung caused by hot clouds in 2013 reached 12,950 people who were displaced. There were several victims who died while in the evacuation due to internal diseases, high blood pressure, shortness of breath and asthma (bnpb.go.id). The eruption of Mount Sinabung certainly has an impact on various sectors, but because the majority of people living in Karo Regency work in the agricultural sector, the impact on farmers is very large, where farmers experience crop failure, they experience huge losses and have an impact on their survival in the future. In the tourism sector, the eruption of

Mount Sinabung that occurred in 2010 and was followed by another eruption in the following days has resulted in various problems, one of which is in the tourism sector. Many tourist attractions were damaged, of course this damage had an impact on regional income in Karo Regency. In addition, the eruption of Mount Sinabung also caused concern and fear for tourists. According to the head of the Tourism Agency Government of Karo Regency, Dinasti Sitepu, since Sinabung's status was raised to level IV, there has been a decrease in the level of tourist visits by 50% to 60%. This was stated based on data collection carried out at the retribution post for each tourist attraction such as Gundaling Hill, Lau Debug-Debug Hot Springs, Raja Berneh and other tourist objects (Febriaty, 2015).

The Role of International Organizations in Mount Sinabung Disaster Management

1. Pre-Disaster Stage

At the prevention stage, the Karo District Government (Badan Penanggulangan Bencana Daerah/BPBD) collaborated with Community Radio *FM Yoboseyo Yumen (FMYY) Japan*. The Community Radio *FM Yoboseyo Yumen (FMYY)* first entered Karo District on February 24, 2014 and its program ended in 2016 (Interview, Halasan Manalu, October 4, 2021). The program between the Government of Karo Regency (BPBD) and Community Radio *FM Yoboseyo Yumen (FMYY) Japan* is in the form of a community radio development program in the context of preventing and mitigating the eruption of Mount Sinabung which is located in Karo Regency. In an effort to reduce the risk of the Mount Sinabung eruption disaster, *FM Yoboseyo Yumen (FMYY) Japan* established Kekelengen FM Community Radio in Perteguhon Village which is located on the slopes of Mount Sinabung. *FM Yoboseyo Yumen (FMYY) Japan* has started to design a communication channel using a radio call (*Handy Talkie/HT*) in Sinabung-prone areas. *FM Yoboseyo Yumen (FMYY)* facilitated the establishment of the Sora Sinabung emergency radio which is housed in the information center in the Karo Regional Government office. The radio broadcasts are the most accessible media in the area surrounding Mount Sinabung. Through emergency radio Sora Sinabung (107.8 FM), the public can listen to broadcasts and participate in filling out programs that air from 07.00 to 24.00 every day. Sora Sinabung (107.8 FM) in the Sinabung circle, so that people living around Mount Sinabung can anticipate themselves if Mount Sinabung erupts (Interview, Halasan Manalu, 4 October 2021).

Previously, emergency radio Sora Sinabung (107.8 FM) was only in Kabanjahe City, the capital of Karo Regency, but after *FM Yoboseyo Yumen (FMYY)* entered Karo Regency in

2014, community radio was formed in two villages, namely Perteguhen and Batu Villages Karang, which is an area that is in the circumference of Mount Sinabung. Until now the radio broadcast is still running and makes it easier for the public to find out about the development of Mount Sinabung and avoid the threat of natural disasters. Even though, in 2016 *FM Yoboseo Yumen (FMYY)* was no longer on duty in Karo District, personally FMYY still frequently visits Karo District and interacts directly with the people who live in the Sinabung circle, and even the programs implemented by *FMYY* are still running. until 2021 even though *FMYY* has already implemented programs in other disaster areas.

In the preparedness stage, the Karo Regency Government (BPBD) conducted international collaboration with *the Malaysian Relief Society* or *Mercy Malaysia* in 2016 and *the United Nations Development Program (UNDP)* in 2016-2017 (Interview, Halasan Manalu, 4 October 2021). The international cooperation program carried out by the Karo Regency Government (BPBD) with *Mercy Malaysia* is in the form of the establishment of *Building Resilient Communities (BRC)*. Then, *Mercy Malaysia* also collaborated with *the Maybank Foundation* and the Karo Regency Government (BPBD) in inaugurating *the Building Resilient Communities (BRC)* in Jambur, Perbaji Village, Tiganderket District, Karo Regency. The inauguration of the BRC is part of a series of activities carried out by *the Malaysian Relief Society* or *Mercy Malaysia* in 2016 . *Mercy Malaysia* also make a program School Preparedness Program (SPP) aims to increase knowledge and awareness of school children towards disaster preparedness (www.mercy.org).

The Karo Regency Government's (BPBD) international cooperation program with the *United Nations Development Program (UNDP)* is in the form of holding Village Information System (SID) facilitator of training for disaster. *The World Food Program (WFP)* collaborates with the Karo government (BPBD) in terms of logistics, and *the World Food Program (WFP)* assists BPBD in providing emergency tents that are urgently needed in times of disaster, these emergency tents can be used as temporary shelters for people who are affected and the tent can be used as a logistics storage area which is used as an effort to deal with the eruption of Mount Sinabung (Romalisda Sihaloho, 4 October 2021) .

2. Emergency Response Stage

At the emergency response stage, the World Food Program (WFP) was present in Karo District in 2013 and then the program ended in 2014. International assistance was provided by the World Food Program (WFP) together with the Karo District Disaster Management Agency (BPBD) in handling eruption disasters. The program implemented by the World Food Program

(WFP) supported by *the Office of US Foreign Disaster Assistance (USAID)* or the United States Office for Foreign Disaster Assistance, launched a six-month program in Karo District to contribute together with the Regional Disaster Management Agency (BPBD). WFP supplies food to where it is needed, saving lives from wars and natural disasters. The WFP program for the Mount Sinabung eruption includes the establishment of a logistics center. Where in the emergency phase or when a disaster occurs, real emergency actions are needed, such as providing basic needs and providing shelter for refugees. Based on an interview with the Head of the Preparedness Section of the Karo District Regional Disaster Management Agency, she said:

“The WFP program is based more on logistics, in the BPBD there is a section related to logistics, because the BPBD Karo itself was formed in 2014 and WFP entered Karo in 2013. Therefore, this is a new thing regarding how to deal with logistical problems, so WFP is present in Karo Regency to support the ability of both the BPBD and residents around Sinabung to be able to organize or manage incoming logistics materials to refugees or to BPBD Karo Regency. In the past, there was a lot of assistance from WFP. WFP taught us how to manage warehouses, how to calculate logistics, there was some lengthy training for us from WFP, so it really helped when WFP was present, besides that WFP also provided a special tent for logistical goods and it is still in BPBD Karo Regency” (Interview, Romalisda Sihaloho, October 4, 2021).

3. Post-Disaster Stage

During the post-disaster phase, the *International Labor Organization (ILO)*, *Food and Agriculture Organization (FAO)*, and the *United Nations Development Program (UNDP)* were supported by the *New Zealand International Aid and Development Agency (NZAID)*. This program aims to contribute to post-disaster recovery efforts for affected areas and communities to have sustainable livelihoods and higher resilience in facing disasters. This program was implemented for 2,5 years and ended in March 2017. Based on an interview with the Head of the Preparedness Section of the Karo District Regional Disaster Management Agency, she said:

“The program carried out by the ILO to help affected communities. The ILO carried out an economic recovery program due to the impact of the eruption of Mount Sinabung. Their focus is on employment recovery. The ILO program provides training to people who are deemed capable of becoming trainers. The program is Training of Trainers, where this program aims to enable the community to continue what they have been doing” (Interview, Romalisda Sihaloho, 4 October 2021).

The following activities are carried out in this program:

1. Establish a strategic livelihood program, with specific targets and strategies for relocated refugees and returning refugees;
2. Creating income generating projects;
3. Restore agricultural livelihoods;
4. Increase the capacity of micro and small businesses started by disaster refugees through financial education and entrepreneurship training.

In addition, training on processing food with agricultural products is also carried out through the Mount Sinabung Recovery Assistance Program (SIRESUP), where the program aims to enable people living in the Sinabung circle to utilize local commodities (www.ilo.org). One of the residents who took part in the 20-day snack making training was Marjiati, where she succeeded in producing vegetable sticks using local natural resources such as broccoli, corn, purple sweet potato, pumpkin, carrots, coffee skins and potatoes. The same thing was conveyed during an interview with Marjiati as a community living around Mount Sinabung, she said:

“I love cooking and welcome the opportunities offered by the ILO, FAO and UNDP to participate in the SIRESUP program. So far, my products have eight flavors that use local commodities. Instead of just selling vegetables as vegetables, I want to turn them into products and I get a better income” (Interview, Marjiati, October 7, 2021).

Table 1. List of Roles of International NGOs in Mitigating the Mount Sinabung Eruption from 2013-2017

No.	Disaster Management Stage	The Role of International NGOs
1.	Pre Disaster	Community Radio <i>FM Yoboseyo Yumen (FMYY) Japan</i> entered Karo District for the first time on February 24 2014. <i>FM Yoboseo Yumen (FMYY)</i> facilitated the establishment of emergency radio Sora Sinabung. In addition, the <i>Mercy Malaysia organization</i> took the form of the establishment of <i>Building Resilient Communities (BRC)</i> and <i>School Preparedness Program (SPP)</i> .
2.	Emergency Response	<i>The World Food Program (WFP)</i> supported by <i>the Office of US Foreign Disaster Assistance (USAID)</i> provides basic needs and provides shelter for refugees. The WFP program entered in 2013-2014
3.	Post Disaster	<i>The ILO, FAO</i> and <i>UNDP</i> organizations created a joint program, namely <i>Mt. Sinabung Recovery Support Program (SIRESUP)</i> . The program ended in 2017.

CONCLUSION

The role of international NGOs in the eruption of Mount Sinabung can be seen through the stages in disaster management, the pre-disaster, emergency response and post-disaster stages. The pre-disaster stage of international actors who attended were Community Radio *FM Yoboseyo Yumen (FMYY) Japan* and *Mercy Malaysia* and the United Nations Development Program (UNDP). During the emergency response phase, *the World Food Program (WFP)*, supported by *the Office of US Foreign Disaster Assistance (USAID)*, provided basic needs and provided shelter for refugees. And at the post-disaster stage, international NGOs that assist are the *International Labor Organization (ILO)*, *the Food and Agriculture Organization (FAO)*, and *the United Nations Development Program (UNDP)*.

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Interview:

Halasan Manalu, Head of the Prevention Section for the Karo District Regional Disaster Management Agency, was interviewed on 4 October 2021

Romalisda Sihalo, S. SOS, MPA. The Head of the Preparedness Section of the Regional Disaster Management Agency was interviewed on 4 October 2021

Marjiati, Entrepreneur (Eruption Victim) interviewed on October 7, 2021