

## Mosque Youth Groups Empowerment and Disaster Risk Reduction in Soka Hamlet, Bantul

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### Abstract

Soka Hamlet is one of the villages in Seloharjo, Pundong District, Bantul Regency, Yogyakarta Special Region. Almost 80% of the residential areas in Soka were destroyed and leveled to the ground due to the 2006 earthquake, and nearly all residents are still traumatized. Lack of training and dissemination on natural disasters, and emergency response, especially earthquakes, has become a problem for most societies when an earthquake occurs. This community service uses an educational approach oriented to the problem-solving process. By using participatory training and education methods that are carried out in a systematic, directed, and planned manner with the active participation of individuals, groups, and the community as a whole, this activity is expected to be able to provide an understanding to the community regarding natural disaster management and preparedness to deal with them, while participatory is an approach that emphasizes on efforts to increase the participation of the community or individuals directly in various processes and program implementation. The results of the service program are shown by the formation of a mosque youth group that is aware of and has a good response to natural disaster situations.

**Keywords:** Community Service, Extension, Natural Disasters

### INTRODUCTION

Indonesia's geographical location is between the Australian, Eurasian and Pacific plates. According to experts, this location is on the line or circle of disaster. Thus, tectonic earthquakes (from the sea) and volcanic earthquakes (volcanoes) often occur in this country. One of them was on May 27, 2006, at 05:57 in the morning, a tectonic earthquake measuring 5.9 on the Richter scale rocked the Special Region of Yogyakarta, which caused severe damage to various public facilities, such as roads, office buildings, malls, school buildings, and hospitals. Severe damage also occurred in historical heritage sites such as the Yogyakarta Palace, Prambanan Temple, and the Tomb of the Kings in Imogiri. Also, the residences were badly affected. Many residents' houses collapsed and were razed to the ground, and even thousands of people died due to the rubble of the building.

Natural disasters such as an earthquake can happen anywhere and anytime, and often without warning. As a result, these emergencies often cause disruption to the affected communities that last for days or even years. Even though the government can provide assistance, sometimes it cannot immediately reach the disaster victims, especially for those who live in rural or isolated areas that are difficult to reach by aid providers directly and quickly. With the assistance that often takes a long time, everyone must prepare early to understand the efforts to save oneself in natural disasters, as well as learn the pattern of first aid to disaster victims, which should also be done independently. Besides, the community should be able to maintain their basic needs such as shelter, food, water, sanitation, and others.

Soka Hamlet in Seloharjo Village, Pundong District, Bantul Regency, Special Region of Yogyakarta, has 6 RTs which are quite close to each other. The population variation in Soka Hamlet mostly consists of teenagers and adults and small numbers of children and the elderly. The residents do not fully understand the difference between hazard and disaster. Hazard refers to "an event, or series of events, whether caused by natural or human factors, which can cause harm to humans, their property, and to the environment, if it is not anticipated well" (Kearney, 2015). Disasters, on the other hand, refer to "serious disruptions to the functioning of a community or society at various scales caused by the interaction of a hazard event with conditions of

exposure, vulnerability, and unpreparedness, resulting in at least one of the following: human casualties, material loss, economic loss, and environmental damage” (UNISDR, 2017).

There is a significant difference between the concepts of ‘hazard’ and ‘disaster’. A hazard does not necessarily lead to disaster. For example, a flood that occurs in an uninhabited area cannot be classified as a disaster because the event does not cause human casualties or material losses. A flood can only be classified as a disaster if it occurs in a populated area and causes serious disturbance to the community. This difference in definition also shows that disasters can actually be prevented when they can be anticipated.

In general, the role of youth in disaster risk management can be divided into three categories of pre-disaster, during a disaster, and post-disaster. Regarding the role of pre-disaster, the study by Wisner (2006) and Fothergill (2017) showed that young people need to have knowledge regarding first aid measures. The study found that in times of disaster, teens are often present around other injured teens. Therefore, knowledge of first aid becomes important to minimize or prevent serious injuries and fatalities. In addition, teenagers can also use social media to share information related to disaster prevention efforts and appropriate disaster response methods.

Regarding the role of adolescents during disasters, the study by Fothergill and Peek (2015) showed that young people could provide emotional support at critical times for fellow disaster victims. The study showed that teens were able to empathize with their peers, comfort their younger siblings, and listen to other teens' complaints. They can also provide support for their parents through hugs, songs, and encouraging words.

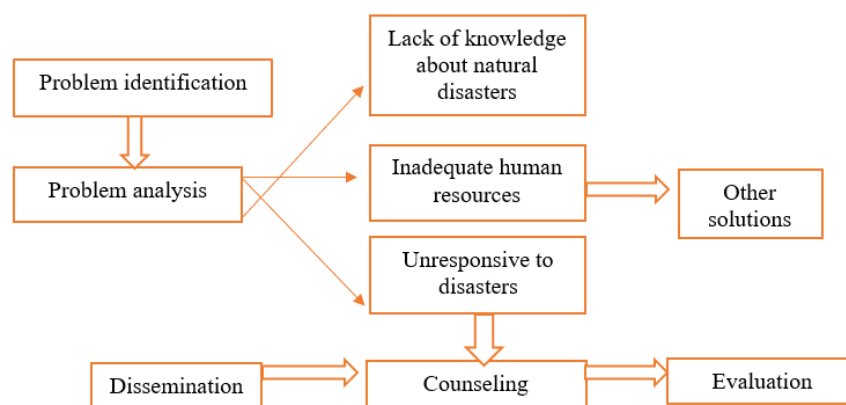
In line with pre-disaster efforts, youth can also use social media as a means of communication during a disaster. A group of teenagers in New Zealand successfully used social media to organize a disaster response team when the earthquake struck Christchurch in 2011. In addition, the study also showed that young people have a better ability to present accurate data regarding victims and impacts of disasters due to their relatively political-free position (Nikku *et al.*, 2006).

In the post-disaster, young people can be involved in crowdfunding activities to help disaster victims. The development of information technology allows youth to initiate online campaigns and conduct fundraising processes for disaster victims. In addition, teenagers can also register as volunteers to help the victims (Gunawan and Hafiz, 2021). In addition to having the opportunity to help disaster victims, volunteers will also receive disaster response training, as well as other training that will help in developing youth capacity.

The role of Indonesian youth in disaster risk management is very important, considering Indonesia's predicate as a ‘disaster laboratory’ (Surbakti and Yunus, 2013). Recent studies have shown that adolescents are relatively more sensitive to post-disaster trauma compared to adults (Black, 2017). The above points place adolescents into the category of vulnerable groups, which require special attention to disaster conditions (Hagan in Khorram-Manesh, 2017). However, despite their ‘vulnerable’ position, adolescents have the capacity to act and are involved in disaster management efforts (Fothergill, 2017). For this reason, the role of youth in Soka Hamlet is very important to create a disaster-responsive Soka Hamlet.

## METHODS

The implementation of this community service activity started with identifying problems and obstacles in terms of disaster response in Soka Hamlet, Seloharjo Village, Pundong District, Bantul Regency. It was carried out by the Service team consisted of Yordan Gunawan, S.H., Int. MBA., M.H., Zulfiani Ayu Astutik, S.H. and Tri Anggoro Putro. Obstacles to responding to these disasters were not resolved directly and simultaneously but by resolving them gradually. After the problem was identified, the next step was to analyze the problem and find the right solution. The analysis can be used as a reference for the implementation of counseling and training on disaster response in Soka Hamlet, Seloharjo Village, Pundong District, Bantul Regency, Special Region of Yogyakarta.



**Figure 1.** Methods of Implementation of Counseling for Mosque Youth in Disaster Response in Soka Hamlet

Next, disseminating the results of the analysis was done to the people of Dusun Soka. It was carried out at the Soka Hamlet Village Hall and was attended by the community, including the head of the RT and RW of Soka Hamlet, Soka Hamlet recitation groups, and mosque youth. At this stage, the community was also informed of the importance of the role of village youth in dealing with natural disasters. After understanding the importance of the role of youth, the community is expected to have sufficient knowledge to reduce the risks of upcoming natural disasters.

In the next stage, Yordan Gunawan, S.H., Int. MBA., M.H., M. Endriyo Susila, S.H., MCL., Ph.D. assisted by Zulfiani Ayu Astutik, S.H., also directly assisted the community in finding out about developments after the first dissemination. After that, an evaluation was carried out to find out the obstacles during the implementation. To understand the implementation method, it can be seen in Figure 1.

## RESULTS AND DISCUSSIONS

The community service was carried out in Soka Hamlet, Seloharjo Village, Pundong District, Bantul Regency. Soka Hamlet is located between 110° 12' 34" - 110° 31' 08" East Longitude and between 7° 44' 04" - 8° 00' 27" South Latitude. The average annual rainfall reaches 2,150 mm with an average of 106 rainy days per year or nine days per month, with the highest rainfall in January and the lowest in August. The raw water sources in Soka Hamlet include 2 (two) springs, the Opak/Oya River, through canals. The springs that have been managed by PDAM include springs in the Gegerkunir area. In Ngreco, Karangasem, and Geger Hamlet, the springs are managed independently by the community, which is then distributed using an electric pump with a piping system.

Soka Hamlet, located south of the Pundong District Office, is crossed by the Opak Oya River. The existence of a river with water flowing throughout the year in the Soka Hamlet helps in maintaining the condition of the groundwater level. The flow of the Opak River, in addition to helping maintain groundwater-surface conditions, also helps irrigation activities for agriculture and fisheries for the people in the Soka Hamlet area, so it needs to be maintained as best as possible so that water pollution and flood disasters can be suppressed. Soka hamlet was one of the areas worst affected by the 2006 earthquake. The people of Dusun Soka worked together to rebuild houses and facilities that were razed to the ground as a result of the earthquake. Even recently, another natural disaster occurred in Soka Hamlet, a landslide. Several residents' houses were damaged, and three residents were injured by the flood currents when the landslide occurred and caused water from the river to overflow to houses and roads in Soka Hamlet.

The problem in Soka Hamlet is that many people have experienced deep trauma due to the earthquake that hit Yogyakarta, and unfortunately, the people of Soka Hamlet are less responsive in dealing with natural disasters, and as a result, the greater the risk experienced by the people

in Soka Hamlet. The absence of counseling and the government's lack of attention to Soka Hamlet resulted in the community being unresponsive to natural disasters. After conducting a study on the problem, it can be concluded that the people of Soka Hamlet are not responsive to natural disasters and do not know how to reduce the risks. The advantage that will be obtained is that the youth and community of Soka Hamlet will be more organized in the foreseeable natural disaster.



**Figure 2.** The condition of Soka Hamlet after the landslide



**Figure 3.** Helping the people of Soka Hamlet after the natural disaster

Furthermore, the service team also visited the areas affected by the landslide that had just occurred in Soka Hamlet, especially in the tourism area of Klampok Waterfall, Soka Hamlet, Seloharjo Village, which was ravaged and razed to the ground. The goal of the team led by Yordan Gunawan, S.H., Int. MBA., M.H, and Tri Anggoro Putro were to find out more about the main problems caused by natural disasters in Soka Hamlet and help the community to strive together to improve the tourism area.



**Figure 4.** Dissemination of disaster response

Counseling to reduce the risk of natural disasters is carried out to provide knowledge to the people of Soka Hamlet about the importance of reducing the risks caused by natural disasters and what to do when natural disasters occur. The majority of Soka Hamlet residents among children, teenagers, adults, and the elderly do not know the difference between "Disaster" and "Hazard". They only know that earthquakes, landslides, and floods that occur are all disasters. However, the definition is very different, where natural events that cause losses are called disasters, while those that do not cause harm are called hazards (Nurjanah and Sakir, 2020).

In addition to providing counseling about the importance of reducing the risks of natural disasters, the people of Soka Hamlet were also given counseling about natural disaster response. This training is given with the hope that in the future if a natural disaster occurs, the residents of Soka Hamlet will be more responsive to dealing with disasters and can reduce the risks of the disaster (Diana *et. al*, 2020). In the beginning, the training was aimed at the youth of Soka Hamlet, but due to the enthusiasm of the residents of Soka Hamlet, the counseling was attended by all ages, including children, teenagers, adults, and the elderly instead.



**Figure 5.** Socialization of Disaster Response Mosque Youth

After conducting counseling about the importance of reducing risks caused by natural disasters and counseling youth mosques in disaster response in Soka Hamlet, the next thing to do was to make a guidebook on natural disaster response. This guidebook served as a guide for the people of Dusun Soka to better understand in detail the activities during pre-disaster, during a disaster, and post-disaster. The manual can be seen in **Appendix**.

Counseling on the importance of reducing risks caused by natural disasters and counseling for youth mosques in disaster response are ways to increase capacity and knowledge about natural disasters and the risks to the people of Soka Hamlet. By bringing in speakers from the

Muhammadiyah Disaster Management Centre (MDMC) who are very experienced in helping communities affected by disasters, reducing the risks that arise, and are highly trained to respond to natural disasters, it is hoped that the people of Soka Hamlet, especially teenagers, are more responsive to natural disasters and can help reduce the risk of natural disasters and can help other hamlet residents when they face similar problems.

## CONCLUSION

Earthquakes, landslides, floods, cyclones, droughts, and forest fires belong to disasters if they cause significant losses. Trauma after a natural disaster is a problem that cannot be avoided. Soka Hamlet in Seloharjo Village, Pundong District, Bantul Regency, Yogyakarta Special Region was worst affected by the 2006 earthquake and landslide in March 2019. The main problem faced by the residents of Soka Hamlet was the lack of knowledge about what to do in the event of a natural disaster. Communities that are responsive to natural disasters will have a positive impact on the people of Soka Hamlet if one day a natural disaster reoccurs in the Bantul area. Another obstacle is the lack of knowledge of the importance of reducing the risks caused by natural disasters.

## RECOMMENDATION

The Disaster Response Mosque Youth in Soka Hamlet is a form of improvement in the social field for the people of Soka Hamlet. The benefits of this counseling are precise, fast, and responsive assistance if one day another natural disaster befell Soka Hamlet. For the people of Soka Hamlet, the provision of guidebooks and loudspeakers will help the Soka Hamlet community to be better prepared for natural disasters. The establishment of institutions in monitoring and assist the disaster response community is important. Under the auspices of the Head of Hamlet, Mr. Suyanto, accompanied by the Head of the Youth, the people of Soka Hamlet will have easy access to information and knowledge about disaster response.

## ACKNOWLEDGEMENT

Our gratitude goes to Mr. Suyanto as the Head of Soka Hamlet and the people of Soka Hamlet, who have received us very well during this community service. We also appreciated Mr. Badrun, as the Head of Seloharjo Village, who has accepted and allowed us to do community service in the Seloharjo Village area. We also express our gratitude to Mr. Harianto, Mrs. Suryanti, and Mrs. Tini, who has greatly helped the implementation of this community service. Lastly, we thank the Muhammadiyah Disaster Management Centre for helping to provide counseling for the people of Soka Hamlet.

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APPENDIX

**BAB 2 KESIAPSIAGAAN**

**A. Kesiapsiagaan**

Dalam menghadapi ancaman bencana, kesiapsiagaan menjadi kunci keselamatan Anda. Kesiapsiagaan merupakan serangkaian kegiatan yang dilakukan untuk mengantisipasi bencana melalui pengorganisasian serta melalui langkah yang tepat guna dan berdaya guna.

BNPB menetapkan sebagai Hari Kesiapsiagaan Bencana Nasional **26 APRIL** dan mengharapkan partisipasi Anda dan semua pihak untuk melakukan latihan kesiapsiagaan.

Banyak upaya kesiapsiagaan bermanfaat dalam berbagai situasi bencana. Beberapa upaya penting untuk kesiapsiagaan adalah:

- 1 Memahami bahaya di sekitar Anda.
- 2 Memahami sistem peringatan dini setempat. Mengetahui rute evakuasi dan rencana pengungsian.
- 3 Memiliki keterampilan untuk menghadapi situasi secara cepat dan mengambil inisiatif tindakan untuk melindungi diri.
- 4 Memiliki rencana antisipasi bencana untuk keluarga dan mempraktikkan rencana tersebut dengan latihan.
- 5 Mengurangi dampak bahaya melalui latihan mitigasi.
- 6 Melibatkan diri dengan berpartisipasi dalam pelatihan.

**B. Rencana Kesiapsiagaan**

Bencana sering terjadi tanpa peringatan sehingga Anda membutuhkan pengetahuan dan keterampilan untuk menghadapinya. Salah satu keputusan yang diperlukan untuk menghadapi bencana adalah rencana kesiapsiagaan.

Tiga upaya utama dalam menyusun rencana kesiapsiagaan menghadapi bencana.

- 1 Miliki sebuah rencana darurat keluarga. Rencana ini mencakup:
  - 1) Analisis ancaman di sekitar.
  - 2) Identifikasi titik kumpul.
  - 3) Nomor kontak penting.
  - 4) Ketahui rute evakuasi.
  - 5) Identifikasi lokasi untuk mematikan air, gas dan listrik.
  - 6) Identifikasi titik aman di dalam bangunan atau rumah.
  - 7) Identifikasi anggota keluarga yang rentan (anak-anak, lanjut usia, ibu hamil, dan penyandang disabilitas).

**BAB 3 SIAGA BENCANA**

**A. Gempa Bumi**

Gempa bumi adalah peristiwa berguncangnya bumi yang disebabkan oleh tumbukan antar lempeng bumi, aktivitas seismik (gempa bumi, aktivitas gunungapi, atau runtuhan batuan).

Jenis bencana ini memiliki merambat, dapat terjadi setiap saat dan berlangsung dalam waktu singkat. Gempa bumi dapat menghancurkan bangunan, jalan, jembatan, dan sebagainya dalam sekejap.

Sampai saat ini, belum ada diri dan institusi yang mampu memprediksi secara akurat gempa bumi sehingga yang berwenang untuk mengeluarkan informasi mengenai gempa bumi adalah BMKG. Anda dapat mengikuti informasi dari berbagai sumber media dan media sosial. Walau gempa bumi, BTK pusat gempa bumi, Indonesia dan beberapa lembaga di lain-lain berwenang untuk atau pun memiliki gerai BMKG bencana ancaman atau KSI.

**Prabencana**

Mempunyai rencana untuk penyelamatan diri apabila gempa bumi terjadi.

Melakukan latihan yang dapat bermanfaat dalam menghadapi runtuhan saat gempa bumi, seperti merenduk, berlindung terhadap kepala, berpegangan ataupun dengan bersembunyi di bawah meja.

Mempunyai alat pemadam kebakaran, alat keselamatan standar, dan pemadam obat-obatan.

Membangun koneksi rumah yang tahan terhadap guncangan gempa bumi dengan fondasi yang kuat. Selain itu, Anda bisa memperkuat bagian bangunan yang sudah rentan.

Mempertahankan daerah awan gempa bumi dan aturan seismik bangunan lain yang dikeluarkan oleh pemerintah.

**Di dalam mobil:**

Saat terjadi gempa bumi besar, Anda akan kehilangan kontrol terhadap mobil.

Jauhi persimpangan, pinggirkan mobil Anda di kiri bahu jalan dan berhentilah.

Ikuti instruksi dari petugas berwenang dengan memerhatikan lingkungan sekitar atau melalui alat komunikasi lainnya seperti radio atau gawai.

**PERINGATAN TSUNAMI PASCA GEMPA BUMI:**

Apabila mendengar peringatan dini tsunami, segera lakukan evakuasi menuju ke tempat tinggi, seperti bukit dan bangunan tinggi.

**Pascabencana**

Tetap waspada terhadap gempa bumi susulan.

Ketika berada di dalam bangunan, evakuasi diri Anda setelah gempa bumi berhenti. Perhatikan runtuhan maupun benda-benda yang membahayakan pada saat evakuasi.

Jika berada di dalam rumah, tetap berada di bawah meja yang kuat.

Periksa keberadaan api dan potensi terjadinya bencana kebakaran.

Berdirilah di tempat terbuka jauh dari gedung dan instalasi listrik dan air. Apabila di luar bangunan dengan tebing di sekeliling, hindari daerah yang rawan longsor.

Jika di dalam mobil, berhentilah tetapi tetap berada di dalam mobil. Hindari berhenti di bawah atau di atas jembatan atau rambu-rambu lalu lintas.

**Saat bencana**

Di dalam bangunan, seperti rumah, sekolah ataupun bangunan bertingkat:

Guncangan akan terasa beberapa saat. Selama jangka waktu itu, upayakan keselamatan diri Anda dengan cara berlutung di bawah meja untuk menghindari dari benda-benda yang mungkin jatuh dan jendela kaca. Lindungi kepala dengan bantal atau helm, atau berdirilah di bawah pintu. Bila sudah terasa aman, segera lari keluar rumah.

Jika sedang memasak, segera matikan kompor serta mencabut dan mematikan semua peralatan yang menggunakan listrik untuk mencegah terjadinya kebakaran.

Bila keluar rumah, perhatikan kemungkinan pecahan kaca, genteng, atau material lain. Tetap lindungi kepala dan segera menuju ke lapangan terbuka, jangan berdiri dekat tiang, pohon, atau sumber listrik atau gedung yang mungkin roboh.

Jangan gunakan lift apabila sudah terasa guncangan. Gunakan tangga darurat untuk evakuasi keluar bangunan. Apabila sudah di dalam elevator, tekan semua tombol atau gunakan interphone untuk panggilan kepada pengelola bangunan.

Kenal bagian bangunan yang memiliki struktur kuat, seperti pada sudut bangunan.

Apabila Anda berada di dalam bangunan yang memiliki petugas keamanan, ikuti instruksi evakuasi.

Figure 6. Manual Book of Disaster Risk Reduction