

Youth Volunteerism's Contribution to Natural Disaster Mitigation in Indonesia: Insights from Muhammadiyah Disaster Management Centre (MDMC)

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Abstrak

Abstract:

This research investigates the role of youth volunteerism in mitigating natural disasters in Indonesia, focusing on the experience of the Muhammadiyah Disaster Management Centre (MDMC). The study explores how youth volunteers contribute to disaster response and management efforts, analysing both the strengths and weaknesses of their involvement. It also examines the collaboration between MDMC and Muhammadiyah universities, as well as the engagement of Muhammadiyah Youth, to understand the extent of youth participation in MDMC's initiatives. The study draws on qualitative data, including interviews and document analysis, to gain insights into the impact and effectiveness of youth volunteerism in mitigating natural disasters in Indonesia. The research findings highlight the significant role of volunteer-based disaster relief organizations in Indonesia, considering the country's vulnerability to disasters. The presence of the MDMC is particularly important in supporting sustainable development goals. MDMC effectively collaborates with Muhammadiyah's service units and volunteers to carry out voluntary works. Notably, MDMC actively engages youth volunteers in both disaster response and anticipation efforts.

Keywords: *Civil Society, Muhammadiyah, Natural Disasters, Youth Volunteerism.*

Introduction

Natural disasters have wide-ranging effects on society, impacting not only social, economic, and political aspects but also cultural and mental dimensions. Srivastava (2010) explains that these dimensions include emotional, cognitive, physical, and interpersonal effects. The impact of natural disasters can be particularly severe in poorer and remote areas, where the ability

to respond effectively is more limited. There are several primary factors contributing to the heightened severity of impacts in those areas, encompassing resource constraints, insufficient infrastructure, susceptibility among populations, restricted information availability, inadequate healthcare and emergency services, as well as limited government capacity. Since disasters are often unpredictable, there is a need to shift

from a focus on disaster response to disaster management in order to minimize The adverse effects on the community (Elsevier, 2017).

According to the Global Facility for Disaster Reduction and Recovery (GFDRR), Indonesia faces significant susceptibility to disasters and must draw lessons from past events to improve preparedness and risk identification (GFDRR, 2016). Due to a combination of geographical, geological, and environmental factors, the country is deemed exceptionally susceptible to disasters. The archipelagic nature of the country exposes it to various types of natural hazards, including earthquakes, volcanic eruptions, tsunamis, floods, landslides, and cyclones. Hence, the existence of volunteer-based organizations in addressing natural disasters in Indonesia, such as the Muhammadiyah Disaster Management Centre (MDMC), plays a crucial role. In this paper, the focus will be on describing the MDMC, which is an organization initiated by Muhammadiyah, and its engagement of youth volunteers in disaster management efforts in Indonesia.

Youth Volunteerism and SDGs

Volunteerism offers a multitude of benefits to societies at the regional, national, and global levels, encompassing various dimensions. Broadly speaking, volunteerism refers to unpaid and non-obligatory work undertaken by individuals for the betterment of the common public good, distinct from their household responsibilities (UN-ESCAP, 2018). Stukas et al. (2015) emphasize that volunteerism

represents a form of prosocial action driven by a voluntary choice, where individuals commit their time and energy to assisting others, often through engagement with non-profit organizations.

Within a broader context, volunteerism holds a strong connection with the 2030 agenda of sustainable development goals (SDGs), underscoring its significant role in supporting global efforts to foster peace, promote development, and address poverty and inequalities. By engaging in volunteer activities, individuals contribute to their own personal growth and development while serving as role models who create positive impacts within society, aligning with the SDGs' guiding principle of "leave no one behind" (UNV, 2016). Volunteerism enables people to become dependable agents of change, actively participating in their own development and making tangible contributions to societal progress.

The engagement of the younger generation in voluntary endeavors offers a range of unique benefits. Specifically, youth volunteerism plays a crucial role in fostering personal growth, enhancing leadership abilities, honing management skills, and cultivating an entrepreneurial mindset, all of which are highly relevant to their employability and future careers. Participating in voluntary activities allows young individuals to acquire and develop essential abilities such as working in teams, cooperating, thinking strategically and tactically, and making decisions and solving problems (Youth CoLab, 2018). Through hands-on experiences in various volunteer initiatives, youth can master these skills and apply them in real-world scenarios,

thereby enhancing their readiness for the challenges of the professional realm.

One noteworthy observation is the significant involvement of young people in disaster relief volunteerism in Bangladesh, driven by a sense of responsibility to aid those who have been adversely affected by crises or disasters (Haq, 2015). This finding underscores the compassionate nature of youth and their willingness to make a positive difference in the lives of others during times of adversity. By actively engaging in disaster relief efforts, young volunteers not only provide much-needed assistance to affected communities but also develop a heightened understanding of the challenges faced in such situations. They learn to adapt to dynamic environments, make quick decisions, and work effectively in teams to address urgent needs, thus gaining practical experience that prepares them for future leadership roles in crisis management and disaster response.

A study conducted by Jardim & da Silva (2018) in a youth center in northern Portugal sheds light on the remarkable surge in youth engagement in volunteerism, which stands in stark contrast to the prevailing assumptions of past decades. Contrary to the belief that young people are antisocial, apathetic, and disconnected from civic and political activities, the findings reveal a notable increase in their involvement in recent years. This revelation challenges preconceived notions and demonstrates that the youth of today are actively seeking opportunities to contribute to their communities.

However, Jardim & da Silva go on to explain that the motivations driving youth participation in volunteer work are

primarily centered around self-oriented purposes rather than purely altruistic intentions. Many young individuals view volunteering as a means to create better opportunities for their professional lives, recognizing the value it holds in enhancing their future prospects. While the motives may not always stem from a deep sense of humanity, it is important to acknowledge that youth volunteerism nevertheless represents a significant investment in addressing regional needs and fostering global development.

Natural Disasters and Disaster Management in Indonesia

Indonesia, located in a geographically and geologically vulnerable region known as the 'ring of fire,' finds itself situated between three major plate tectonic boundaries: the Pacific, Eurasian, and Indo-Australian plates. This precarious positioning exposes the country to a high risk of natural disasters. With a total of 497 cities prone to various types of disasters, 60 percent of these cities (323 cities) are classified as 'high risk,' while 35 percent (174 cities) fall under the 'medium risk' category. The nation faces a multitude of threats, including earthquakes, tsunamis, volcanic eruptions, floods, landslides, droughts, forest and land fires, extreme waves and abrasion, extreme weather events, and flash floods (BNPB, 2016).

In 2018, Indonesia experienced a series of devastating natural hazards, with two notable incidents being the earthquakes in North Lombok during July and August, as well as the earthquake and tsunami in Palu in September. These

disasters had a significant impact, affecting approximately 930,000 individuals. Tragically, 2,700 lives were lost, and 156,000 houses were either destroyed or severely damaged as a result (IFRC, 2019). These events serve as a somber reminder of the immense challenges faced by Indonesia in managing and mitigating the consequences of natural disasters within its borders.

Moreover, in 2022, according to the report released by the National Disaster Management Agency (BNPB), Indonesia experienced a total of 3,544 natural disasters. The most prevalent among these were floods, which occurred 1,531 times throughout the past year. Following closely were incidents of extreme weather, totaling 1,068, and landslides, with 634 recorded occurrences. Additionally, the country faced 252 cases of forest and land fires, 28 earthquakes, and 26 instances of tidal waves/abrasions. Furthermore, there were four instances each of drought and volcanic eruptions. The collective impact of these natural disasters resulted in 851 fatalities, 8,726 injuries, and 46 missing individuals. The repercussions extended even further, with approximately 5.42 million people enduring suffering and displacement due to these events. Notably, the calamities also caused damage to 94,990 homes and 1,980 facilities such as schools, places of worship, and health establishments across Indonesia (BNPB, 2023). Given Indonesia's geographical location and the occurrence of recent natural disasters, the development of disaster management in the country is of utmost importance.

The 2004 tsunami in Aceh served as a pivotal event that urged Indonesia to take

action. Following this catastrophic disaster, the Indonesian government embarked on a mission to enhance its disaster management system. It took three years for the government to formalize a paradigm shift from a reactive disaster response approach to a comprehensive disaster management method encompassing all phases: pre-disaster, during disaster, and post-disaster. This transformation was achieved through the enactment of the Law on Disaster Management (UU 24/2007) and the establishment of the National Disaster Management Agency (BNPB) in 2008 (CFE-DMHA, 2015).

In subsequent years, BNPB extended its reach beyond national borders by engaging with neighboring countries through collaboration with the Melanesian Spearhead Group (MSG), which includes Fiji, Papua New Guinea, Solomon Island, and Vanuatu. These efforts, initiated in 2014, aimed to foster cooperation in disaster management and were formalized through the signing of a Memorandum of Understanding (MoU) with Fiji in 2016 (Sembiring & Lassa, 2016). Recognizing the regional context, BNPB also joined forces with non-governmental organizations and the private sector to enhance disaster risk reduction initiatives (Shalih, 2015). While there may be certain limitations, these collective endeavors demonstrate Indonesia's heightened preparedness and commitment to mitigating the impacts of natural disasters.

MDMC and Youth Engagement

MDMC, as a disaster response organization initiated by Muhammadiyah, has been actively and significantly involved in supporting the Indonesian government in addressing disasters over the past decade. The organization's establishment was motivated by several major events, including the 2006 earthquake in Yogyakarta, the 2009 earthquake in Sumatra, and the 2010 eruption of Mount Merapi. These incidents raised Muhammadiyah's awareness of the need to establish MDMC, leading to its formation during the organization's 2010 National Congress in Yogyakarta. Since its inception, MDMC has emerged as one of the most active non-governmental organizations in the field of disaster management in Indonesia (Bush, 2014).

MDMC's contributions extend beyond national borders, as the organization has been involved in mitigating disasters in other countries as well. For instance, MDMC provided assistance during the aftermath of the 2013 Typhoon Haiyan in the Philippines and the 2015 earthquake in Nepal. Additionally, in 2017, the center's medical team collaborated with Muhammadiyah Aid to offer humanitarian aid to Rohingya refugees in Cox's Bazar, Bangladesh. Notably, MDMC's Emergency Medical Team (EMT) is the only team in Indonesia recognized by the World Health Organization (WHO) as an official EMT (Alhaq, 2017). Most recently, the Emergency Medical Team (EMT) of Muhammadiyah played a significant role in responding to the earthquakes that occurred in Turkey and Syria in February 2023. During this period, MDMC dispatched a team of 23 dedicated volunteers as part of

the EMT. The team consisted of 3 emergency doctors, 2 orthopedic surgeons, 6 nurses, 1 pharmacist, 1 midwife, 1 psychologist, 1 safety & security officer, 6 logistics personnel, 1 medical administrator, and 1 liaison officer. These volunteers were officially designated as representatives of the Indonesian government in the response efforts (muhammadiyah.or.id, 2023; suaraaisyiyah.id, 2023).

The presence of MDMC has been instrumental in complementing the government's disaster management efforts, particularly in providing swift and effective responses to various disasters. The organization's track record of successful interventions, both within Indonesia and internationally, highlights its capacity to mobilize resources, expertise, and medical support during critical situations. MDMC's initiatives have not only helped in immediate disaster relief but also in long-term recovery and resilience-building processes. Furthermore, MDMC's collaboration with Muhammadiyah Aid and other humanitarian organizations demonstrates the importance of partnerships in addressing complex challenges. By leveraging the resources and expertise of different stakeholders, MDMC has been able to extend its reach and impact, contributing to disaster mitigation efforts in a broader context. The establishment and expansion of MDMC serve as tangible evidence of the organization's effectiveness and its positive role in civil-based disaster management. By actively engaging in disaster response activities and offering support beyond national boundaries, MDMC has demonstrated its commitment to

humanitarian principles and its ability to contribute to the overall resilience of communities affected by disasters.

MDMC, a humanitarian organization established by Muhammadiyah, an Islamic civil society organization, deeply embodies the theological principles upheld by its parent organization. The humanitarian endeavors of MDMC are firmly rooted in the spiritual beliefs and values that stem from the teachings of Ahmad Dahlan (1868-1923), the founder of Muhammadiyah. Gunawan (2018) reveals that Muhammadiyah's actions are guided by a spiritual motivation rooted in the concept of 'al-Ma'un theology.' This concept, derived from the Arabic term 'al-Ma'un,' which denotes acts of 'favor' or 'small kindness,' forms the bedrock of Muhammadiyah's approach to humanitarian work. Embracing the ethos of 'progressive Islam' as its organizational identity, Muhammadiyah prioritizes transformative actions through education, healthcare, and social services. With a vast network encompassing 4,623 schools and universities, 2,119 hospitals and health centers, and 454 social service units, Muhammadiyah actively contributes to multiple sectors of society (muhammadiyah.or.id, 2019).

The foundation of MDMC's humanitarian efforts lies in the profound influence of Muhammadiyah, an organization deeply committed to its progressive Islamic values. The spiritual impetus derived from the teachings of Ahmad Dahlan shapes Muhammadiyah's approach to humanitarian work, emphasizing the significance of 'al-Ma'un theology' or acts of kindness. This theology serves as a guiding principle, encouraging

MDMC to engage in transformative initiatives specifically in the field of disaster management and humanitarian issues. Muhammadiyah's extensive presence, comprising thousands of schools and universities, hospitals and health centers, and social service units, underscores its active and substantial contributions across various realms of society (muhammadiyah.or.id, 2019).

Furthermore, Muhammadiyah has made significant strides in the area of disaster response. In the 2015 Tarjih National Conference held in Yogyakarta, Muhammadiyah issued an official policy known as 'the theology of disaster' (*Fikih Kebencanaan*). This policy encompasses the Islamic perspective on disasters, including measures to mitigate their impact and uphold the rights of disaster victims (PP Muhammadiyah, 2018). The guiding principles and theological viewpoints articulated by Muhammadiyah form the foundation for its activists, members, and subsidiary organizations, including MDMC. By aligning its actions with these theological values, MDMC ensures that its humanitarian endeavors are consistent with the underlying principles of Muhammadiyah and Islamic teachings. The integration of theological perspectives provides a solid foundation for MDMC's efforts in addressing the needs of disaster-affected communities and delivering assistance in a manner that is grounded in both faith and compassion.

MDMC benefits from the extensive network of educational, health, and social services provided by Muhammadiyah, which significantly contributes to the

organization's ability to effectively respond to and manage disasters in Indonesia. This advantage extends to the recruitment of volunteers as well. According to Baidhaw (2015), MDMC classifies its volunteers into four distinct groups: medical, psychosocial, environmental health, and search and rescue (SAR) teams. The medical volunteers are backed by Muhammadiyah hospitals, several of which have specialized Disaster Medical Committees (DMC). Psychosocial and environmental health volunteers, on the other hand, receive support from Muhammadiyah universities, particularly the Faculty of Psychology and the Faculty of Public Health. SAR volunteers collaborate with Muhammadiyah Youth (*Pemuda Muhammadiyah*), specifically within the Muhammadiyah Youth Preparedness Command (KOKAM, *Komando Kesiapsiagaan Angkatan Muda Muhammadiyah*). In total, MDMC boasts approximately 2,000 disaster volunteers (Wahyuni, 2017). The coordination among MDMC, Muhammadiyah's service units, and the volunteers plays a crucial role in determining the success of the organization's disaster management efforts.

The partnership between MDMC and Muhammadiyah's educational, health, and social service units provides a comprehensive framework for disaster response. The integration of these sectors ensures that MDMC can draw upon the specialized knowledge and resources available within Muhammadiyah's vast network. By collaborating with Muhammadiyah hospitals, medical volunteers are equipped with the necessary expertise to provide essential medical assistance during emergencies. Similarly, the involvement of Muhammadiyah

universities enables psychosocial and environmental health volunteers to access relevant academic disciplines and apply their knowledge effectively in disaster-affected areas. The collaboration with Muhammadiyah Youth, particularly within the Disaster Awareness Youth Force, contributes to the development of capable search and rescue teams. This multi-sector coordination strengthens MDMC's disaster management capabilities and enhances its ability to address various aspects of a crisis. The successful integration and collaboration among MDMC, Muhammadiyah's service units, and the dedicated volunteers form the foundation of an effective and cohesive disaster response system.

The involvement of Muhammadiyah universities and KOKAM in MDMC highlights the active engagement of youth within the organization. Through partnerships with universities, students are provided with valuable opportunities to participate in disaster volunteerism. Some universities have even established dedicated student associations focusing on disaster preparedness, such as the Disaster Preparedness Student Volunteers (Maharesigana) at the University of Muhammadiyah Malang (UMM). This association regularly organizes Disaster Field Training to enhance students' practical skills in responding to and managing disasters (umm.ac.id, 2018). Furthermore, MDMC collaborates with other university-affiliated organizations such as Student Mountaineering Clubs (Mapala), Student Scouts (Pramuka and Hizbul Wathan), and Student Red Cross Clubs (KSR-PMI, *Korps Sukarela Palang*

Merah Indonesia) to empower and engage students in disaster-related activities.

The partnership between MDMC and Muhammadiyah universities creates a platform for youth to actively contribute to disaster response and management efforts. By involving students, MDMC taps into their enthusiasm, energy, and innovative ideas. These young volunteers bring fresh perspectives and a willingness to learn, contributing to the continuous development of effective disaster management strategies. Through participation in disaster field training and engagement with university-affiliated organizations, students gain practical experience, enhance their skills, and acquire a deeper understanding of the complexities involved in disaster situations. This hands-on involvement not only equips them with valuable knowledge but also instills a sense of responsibility and empathy towards disaster-affected communities. The collaboration between MDMC and Muhammadiyah universities serves as a vital platform to nurture the next generation of disaster management leaders who can contribute to building resilient communities and reducing the impact of disasters.

Meanwhile, the collaboration with KOKAM networks proves to be advantageous for MDMC, as Muhammadiyah Youth has branches established in all 34 provinces of Indonesia. This extensive network provides MDMC with access to a wide pool of young volunteers who are eager to contribute to disaster relief efforts. The involvement of youth in disaster volunteerism aligns with MDMC's commitment to social welfare

provision, as outlined in its organizational principles. In accordance with its policies, MDMC strategically leverages the resources within the Muhammadiyah networks, including its suborganizations, institutions, and regional branches, to consolidate human resources for effective disaster relief operations (Bush, 2015). These collaborative efforts enable MDMC to tap into the passion and dedication of young Muhammadiyah cadres, as affirmed by San (2019), who emphasizes the active participation of youth in MDMC's humanitarian endeavors.

The engagement of young activists within MDMC is further supported by Latief (2013), who highlights the center's reputation as a vibrant hub for young volunteers. This recognition affirms MDMC's role as a platform that empowers and encourages the active involvement of youth in disaster management initiatives. By creating a space where young individuals can contribute their skills, knowledge, and energy, MDMC harnesses the potential of the younger generation to make a meaningful impact in disaster-affected communities. The center's commitment to engaging young activists reflects its recognition of the importance of cultivating and nurturing future leaders in the field of disaster management. Through their participation in MDMC's activities, these young volunteers not only gain practical experience but also develop a strong sense of social responsibility and empathy towards those affected by disasters.

Apart from actively participating in various areas such as medicine, psychosocial support, environmental

health, and search and rescue (SAR), MDMC's youth volunteers assume a vital function in programs aimed at anticipating disasters. Specifically, they play a significant role in organizing schools and communities to enhance preparedness for potential disasters. Within the educational sector, MDMC has established Disaster Mitigation Schools (SSB, Sekolah Siaga Bencana) that aim to enhance disaster preparedness not only in Muhammadiyah schools but also in other educational institutions, including public and private schools located in disaster-prone areas. These SSBs serve as platforms for educating students on various aspects of disaster management, equipping them with the necessary knowledge and skills to respond effectively in the event of a natural disaster. By extending their reach beyond Muhammadiyah schools, MDMC ensures that a wider range of students can benefit from disaster preparedness education, fostering a culture of resilience within the younger generation.

Within the health sector, MDMC also operates Disaster Preparedness Hospitals (RSSB, Rumah Sakit Siaga Bencana), which serve as training grounds for young doctors to enhance their understanding and preparedness in dealing with natural disasters and their aftermath. Through specialized training programs, these young doctors are equipped with the necessary medical knowledge, emergency response skills, and psychological support techniques to provide effective healthcare services in disaster situations. By focusing on building the capacity of young medical professionals, MDMC contributes to the strengthening of the healthcare system's response to disasters, ensuring that communities

receive the necessary medical assistance in times of crisis.

Furthermore, MDMC extends its reach to local communities, actively empowering women and youth groups to establish Disaster Preparedness Community Houses (RKSB, Rumah Komunitas Siaga Bencana). These community houses serve as focal points for disaster awareness and preparedness at the grassroots level. By engaging with local units and embracing community participation, MDMC aims to foster a sense of ownership and collective responsibility in disaster management efforts. Through training sessions, workshops, and awareness campaigns, RKSBs provide valuable knowledge and resources to communities, enabling them to take proactive measures to reduce vulnerability and enhance their resilience to disasters. This community-driven approach highlights MDMC's commitment to empowering local actors and building a resilient society from the bottom up, with a particular emphasis on the active involvement of women and youth in disaster preparedness and response activities (Baidhawya, 2015).

However, based on the extensive experience of MDMC, youth volunteerism has both positive and negative aspects. In terms of the advantages, as elucidated by Indrawan, the former chairman of Maharesigana UMM and a senior volunteer at MDMC, during a telephone interview conducted in 2019, young volunteers exhibit a higher level of motivation as they seek self-actualization, social contribution, and the acquisition of positive new experiences. They are more accessible and available, as they generally have more free

time compared to other age groups. Additionally, young volunteers tend to be flexible in task allocation and can effectively utilize modern fundraising methods both offline and online (Indrawan, 2019).

On the other hand, Indrawan also acknowledged certain limitations associated with youth volunteerism. He noted that young volunteers often lack extensive experience and professional certifications, which may hinder their effectiveness in certain tasks. Furthermore, their capacity and understanding of disaster management may be limited, requiring additional training and guidance. It is also important to recognize that young volunteers may be more susceptible to emotional difficulties, particularly when confronted with distressing situations that occur in the aftermath of natural disasters (Indrawan, 2019).

Despite these challenges, it is widely recognized, as emphasized by Cnaan et al. (2010), that youth volunteerism represents a significant investment in the future of civil society within a country. Therefore, in order to address the identified drawbacks, MDMC should develop and implement more suitable and impactful mentorship programs for young volunteers, encompassing the entire volunteer engagement process, from pre-activity preparation to ongoing support and guidance (Cnaan et al., 2010). By providing appropriate mentorship and training opportunities, MDMC can enhance the capabilities of young volunteers, enabling them to contribute more effectively to disaster management initiatives.

Conclusion

Given Indonesia's susceptibility to natural disasters, the presence of volunteer-based organizations dedicated to disaster management plays a vital role in promoting sustainable development. Consequently, the presence of MDMC holds significant importance in supporting this objective. MDMC operates through a network of volunteers and maintains strong collaborative ties with Muhammadiyah service units and volunteers. Through these mutual relationships, MDMC actively involves young individuals in disaster management efforts, both in response to and in preparation for disasters. During times of disaster, youth volunteers contribute their skills to medical teams, psychosocial support, environmental health initiatives, and search and rescue (SAR) operations. In times of anticipation, they assist in organizing schools and communities to enhance disaster preparedness.

However, despite the enthusiasm and adaptability exhibited by these young volunteers, many of them lack extensive experience and professional expertise. While their motivation and flexibility are commendable, there is a need to address the gaps in their knowledge and skills. Therefore, the implementation of a comprehensive and high-quality mentoring program for young volunteers assumes a crucial role in advancing disaster management within MDMC. Such a program would provide valuable guidance and support to equip these volunteers with the necessary competencies and ensure their

effective contributions in disaster-related activities.

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