

Volunteerism and Disaster Relief in Indonesia:
Case Studies from Makassar and Luwu Timur

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Attestation of Authorship

“I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the qualification of any other degree or diploma at a university or other institution of higher learning, except where due acknowledgement is made in the acknowledgements.”

Signed:

A handwritten signature in black ink, appearing to be 'Mu', written over a horizontal line.

Date: 10 August 2018

Abstract

Disaster victims are able to be self-reliant according to many disaster management scholars. However, when the destruction effect disrupts the functioning of the affected community and surpasses their ability to cope, support from the outside can be crucial. One source of support is provided by volunteers, who can often be critical during and after a disaster. Volunteers are often from local surrounding communities, are bystanders, or are even victims helping other victims. Volunteers offer a flexible type of response, sometimes with less attention to health and safety, but they can be very useful during the management of disasters. Such positive input has been highlighted in many other countries. However, studies exploring the role of volunteer groups involved in disaster management in Indonesia are limited. There is little information about individuals' motives for joining voluntary emergency response groups (VERGs), or the type of actions VERGs perform in a disaster. This research is a first step towards filling this knowledge gap by investigating the contributions of VERGs in providing support during disasters in Indonesia. A qualitative descriptive methodology is used to collect and collate data obtained from semi-structured interviews. Findings indicate that VERGs play a key role during the immediate disaster response phase. Reasons for volunteering relate mainly to altruistic behaviours, social capital and religious beliefs. Volunteer groups play significant roles, especially during local, small-scale disasters, and they fill the need for timely support. Roles are flexible but are mainly related to search and rescue, medical assistance and logistics. Despite their significant roles in disaster response efforts, effective collaboration between VERGs and official government

disaster management agencies has yet to be achieved. Thus, more integration in the disaster management framework is needed.

Keywords: Disaster volunteerism, volunteer's motivation, voluntary disaster response groups, small scale disasters

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List of Abbreviation

<i>BMKG</i>	: Badan Meteorologi, Klimatologi dan Geofisika (translated as Indonesian Meteorology, Climatology, and Geophysics Agency)
<i>BNPB</i>	: Badan Nasional Penanggulangan Bencana (translated as the National Disaster Mitigation Agency)
<i>BPBD</i>	: Badan Penanggulangan Bencana Daerah (translated as the Local Disaster Mitigation Agency)
<i>DRC</i>	: Disaster Research Center (University of Delaware, USA)
<i>FEMA</i>	: Federal Emergency Management Agency (USA)
<i>IFRC</i>	: International Federation of Red Cross and Red Crescent Societies
<i>NGOs</i>	: Non – Government Organisations
<i>Perka BNPB</i>	: Peraturan Kepala BNPB (translated as the Head of BNPB Regulation)
<i>Renstra BNPB</i>	: Rencana Strategis BNPB (translated as Strategic Planning of BNPB)
<i>SAR</i>	: Search and Rescue
<i>UNISDR</i>	: United Nations International Strategy for Disaster Reduction
<i>UNV</i>	: United Nations Volunteers
<i>UU</i>	: Undang-Undang (translated as Indonesia’s Constitution Document)
<i>VERG</i>	: Volunteer Emergency Response Groups

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Chapter One: Introduction

Background

Disaster disrupts the functioning of a community when its effects surpass the community's ability to cope (UNISDR, 2009). Although most disaster management literature moots the idea that disaster victims can be self-reliant (Alexander, 2010; Orloff, 2012; Quarantelli, 2001), support from outside is still needed when the destruction of physical assets, basic services and livelihoods are beyond the community's capacity to cope (Paton, Smith, & Violanti, 2000). One source of support is from the services provided by volunteers, which can be a critical contribution to disaster situations (Hughes & Henry, 2003).

Volunteers often play active roles in disaster responses and recovery activities (Mardiasmo & Barnes, 2015). Their roles include saving lives (James, 2008; Twigg & Mosel, 2017), evacuating residents (Mardiasmo & Barnes, 2015; Strandh & Eklund, 2017), clearing debris (Strandh & Eklund, 2017) and assisting with the basic needs of the victims, such as erecting temporary shelters or providing childcare services (Lueck & Peek, 2012; Twigg & Mosel, 2017). Volunteers are often from local surrounding communities, or they are bystanders, or even victims helping other victims. Volunteers usually come in large numbers to contribute flexible types of responses, sometimes with less acceptable standards of safety (Whittaker, McLennan, & Handmer, 2015). When disaster strikes, volunteers can be very useful support during the immediate response (Alexander, 2010).

Worldwide, volunteers and their groups have been working alongside official government agencies to provide a response during disasters for years (James, 2008). Indonesia is not an exception to such voluntary groups responding to a disaster.

However, studies exploring the role of volunteer groups involved in disaster management in Indonesia are limited. There is little information about individuals' motivation for joining volunteer groups, or the type of actions volunteers perform during disasters. The current study aims to fill this knowledge gap by investigating the contributions of volunteer groups in disaster responses. The particular focus is Indonesia. This study aims to understand the nature of volunteers' participation in disasters in Indonesia in order to elucidate their exact roles and specific contributions.

The next section, "Volunteerism in Disasters", provides a general introduction to volunteerism, with a focus on volunteers responding to emergencies as groups. The research question and objectives are then described, as well as the relevance of the current study. Subsequently, a short overview on disasters in Indonesia and how these disasters are currently managed by Indonesian authorities is provided. The section also reviews the position of volunteers in the existing disaster management framework, and volunteers' potential roles during disasters. In the final section of this chapter, "Dissertation Outline", the structure of the dissertation is described.

Volunteerism and Disasters

The most common definition of "volunteer" comes from the United Nations in Ferreira, Proenca, and Proenca (2009), which defines a volunteer as a person, who, having carried out the duties of every citizen places her/his own capacity in the disposal of others, for the community or for all humanity. She/he operates in a free and gratuitous manner promoting creative and effective responses to the needs of

beneficiaries of her/his own action and contributing to the realization of common goods. (p. 2)

The literature points out that the concept of volunteering has two key aspects. First, service is done by choice or free will, without necessarily expecting monetary gain (UNV, 2012). Second, volunteering is for the benefit of others or the wider community (Alexander, 2010). Volunteering in the disaster context can be considered as the genuine motive of a human to attend to the needs of others in a time of disaster. This altruistic expression is among the most visible motivations for people's immediate reaction to a disaster and in assisting those directly affected (Lee & Brudney, 2012).

In focusing on volunteering in the context of disaster, Haraoka, Ojima, Murata, and Hayasaka (2012), and Whittaker et al. (2015), have argued that volunteers can be defined from many perspectives. For example, volunteers can be differentiated by their level of expertise, such as whether they are professionals or non-professionals (Whittaker et al., 2015). Or, some may look at their affiliations, for example, whether they are affiliated to an organisation or are unaffiliated individuals (Orloff, 2012). Whittaker et al. (2015) differentiated volunteers into formal and informal types. Formal volunteering is a deliberate action to provide service through governmental or other official disaster management institutions, while informal volunteering is usually provided in person or through organisations that work outside the official system (Whittaker et al., 2015). In the disaster response context, spontaneous action to deliver immediate assistance to affected people can take place outside and inside an organised setting (Alexander, 2010).

Disaster volunteers from the community. In disaster terminology, conditions that may expose a community to greater impacts are described as vulnerabilities (UNISDR, 2009). In an effort to reduce vulnerability to disasters, community-based volunteers can be acknowledged as self-help human resources who play active roles in the disaster management process (Fernandez, Barbera, & Van Dorp, 2006). Generally, it is recognised that the most effective human resources for disasters are those organised and underpinned by local networks (Allen, 2006). Allen's (2006) work provided examples of community-based disaster preparedness as applied in the Philippines, which was able to raise awareness of risks and vulnerabilities in local communities.

In fact, effective action is required to train and prepare local volunteers for the full range of work in disaster management by recognising that volunteers from within local communities are usually the first responders (Patterson, Weil, & Patel, 2010). There are many reports on local volunteers' work in times of disaster and how they deliver strong support to the victims (International Federation of Red Cross and Red Crescent Societies [IFRC], 2011; UNV, 2012). Such support can be beneficial, especially in low-income, disaster-prone countries where the effect of disasters coupled with communities' vulnerabilities may expose the country to higher impacts (Kellenberg & Mobarak, 2008). Indonesia is one such country, where disasters are recurrently experienced, and where damage from disasters is highly likely to be devastating (Andreastuti et al., 2017; Siagian, Purhadi, Suhartono, & Ritonga, 2013). Therefore, this study focuses on local volunteer groups in Indonesia currently involved in disaster response.

Volunteer emergency response groups in Indonesia. Generally, disaster management relies on a central government's disaster management agency (James, 2008), and those who are not part of the formal command and control system are often considered illegitimate, or as potentially obstructing the effectiveness of disaster response (Whittaker et al., 2015). However, local volunteer organisations operating outside the formal disaster management system are usually among the first to provide response and relief services, especially in small, local emergency events (Mardiasmo & Barnes, 2015). For example, the predominant influences of local citizen groups in Indonesia and Sri Lanka were very noticeable during the 2004 Indian Ocean tsunami (Twigg & Mosel, 2017). Contributions from these and similar volunteer groups providing response services during disasters may be undervalued (Guldåker, Eriksson, & Kristofersson, 2015).

In Indonesia, many people voluntarily join groups outside the official disaster management institution established by the Government. Their work typically focuses on providing responses such as search and rescue (SAR), basic medical services and logistics in the aftermath of a disaster (Andreastuti et al., 2017; Mei et al., 2013). Volunteerism, especially in the Indonesian context, has gradually caught the attention of disaster management researchers (Djalante & Thomalla, 2012; James, 2008; Mardiasmo & Barnes, 2015; Molloy & Fitzpatrick, 2015). However, most of the literature still positions such groups within the formal framework of local non-governmental organisations (NGOs), or within the context of community collaboration in disaster management. Also, existing studies mainly focus their attention on these groups' capacity to generate funding, and their spontaneous participation in disaster situations (James, 2008). Thus, the range of literature

available has not purposively put these groups into a particular category to allow elucidation of their specific roles and contributions to disaster management.

One study by Strandh and Eklund (2017) attempted to conclude the form of citizen emergent groups as the Extending Organisation based on DRC typology (Drabek & McEntire, 2003), to maintain the same organisational structure after disasters, but instead took on non-routine responsibilities during disaster responses. DRC typology cannot be applied in every situation, and therefore, understanding voluntary disaster groups in Indonesia needs further investigation. Categorising volunteer organisations more precisely, however, can be beneficial in unifying objectives regarding the jurisdictions of emergency planning as well as in providing access to disaster managers for assessing volunteers' capacity and readiness to deliver response actions. Further, this dissertation defines the citizens responding to disasters together in an organised way as volunteer emergency response groups (VERGs) based on the voluntary nature of their activities.

Despite James's (2008) recommendation to scholars to focus more on the potential contribution of organised disaster response groups from the community such as the VERG, as a pathway to improving disaster response in Indonesia, there have not been many attempts to define their specific work. One VERG in Indonesia that has received much attention from disaster management scholars, however, is the *Jaringan Informasi Lingkar Merapi* (otherwise known as *Jalin Merapi*) (Mahaswari, 2012). This organisation was established during the Merapi eruption in 2006, and it took part in facilitating social media usage as a way forward for managing disasters. This organisation later actively contributed to another Merapi eruption in 2010 by providing support during the response (Mahaswari, 2012).

Research Question and Objectives

To address the research question and its objectives, this study uses VERGs as the focus. Indonesia was selected as a case study because only very limited academic work depicts the contributions of disaster volunteers in Indonesia (Djalante & Thomalla, 2012). This study aims to understand how VERGs contribute to disaster management in Indonesia. To address this research question, this study focuses on three objectives:

1. To understand what influences the formation of a VERG and what motivates volunteers to join VERGs.
2. To identify the roles of VERGs during and after disasters.
3. To understand the challenges to and opportunities for VERGs in implementing their work in disaster management processes.

Disasters in Indonesia

Hazard exposure and past disasters. The islands of Indonesia are located in South-Eastern Asia, placed between Asia proper and Australia (Figure 1). The equatorial line passes through Indonesia, lending richness to its biodiversity as well as its natural resources. However, a high number of natural hazards exist in Indonesia that potentially threaten the country's large population (Djalante & Thomalla, 2012). According to (Djalante, Garschagen, Thomalla, & Shaw, 2017), between 1900 and 2015, Indonesia have endured 429 geophysical and climate-related hazards with some of them were extremely deadly. Table 1 shows the list of major disasters in Indonesia from 1900 to 2015.

Table 1

List of major disasters in Indonesia between 1900 and 2015 (open source:

<http://dibi.bnph.go.id/dibi/>)

Year	Place	Type of Disaster	Deaths
1919	East Java	Volcanic eruption	>10,000
1926	Papua	Earthquake	486
1930	Yogyakarta	Volcanic eruption	1,369
1951	Flores	Volcanic eruption	1,300
1963	Bali	Volcanic eruption	2,732
1973	Central Java	Tsunami	1,500
1980	West Java	Flood	143
1981	East Java	Earthquake	1,306
1992	Flores	Earthquake	2,500
2004	Aceh and Nias	Tsunami	165,945
2006	Central Java	Earthquake	5,784
2008	Jakarta	Flood	188
2009	Padang	Earthquake	1,330
2010	West Java	Flood	673

Located on the intersection of the Earth's three main tectonic plates (the Eurasian Plate, the Australian Plate and the Pacific Ocean Plate), Indonesia is a part of the Pacific Ring of Fire, exposing the country to a high degree of seismic activity (Leitmann, 2007). Seismic activity leads to earthquakes, volcanic eruptions and tsunamis.



Figure 1. Indonesia's location on the world map (Maps of World, 2017a). Last accessed on 20 June 2018

By far, tsunamis have been the most devastating hazard ever recorded in Indonesia's modern history (James, 2008). The Indian Ocean tsunami that struck Aceh on 26 December 2004 left hundreds of thousands of people dead or lost, and contributed to the statistic that, on average, 21,000 people have been killed in each tsunami occurring in Indonesia and its territories during the last 100 years (Post et al., 2009).

Earthquakes have also proved to be destructive to people and infrastructure. In 2006, an earthquake in Yogyakarta killed at least 6,000 people and caused damage worth US\$3 billion (Jousset et al., 2012). In 2009, one of the worst earthquakes in

Indonesia in the last ten years occurred in Padang City, causing 1,100 deaths and approximately US\$2.3 billion in infrastructure damage (Badan Penanggulangan Bencana Daerah [BPBD] aka the Local Disaster Mitigation Agency, 2015).

According to the Indonesian Agency for Meteorology, Climatology and Geophysics (aka *Badan Meteorologi, Klimatologi, dan Geofisika*, or BMKG), there are more than 4,600 earthquakes ever recorded in Indonesia, most triggered by the Pacific Ring of Fire (Badan Meteorologi Klimatologi dan Geofisika [BMKG] aka Indonesian Agency for Meteorology Climatology and Geophysics, 2015).

Earthquakes have long-term impacts that can continue for years due to severe disruption to livelihoods.

In addition, smaller-scale disasters take place in Indonesia regularly and devastate local communities. The small-scale disasters are flash floods, landslides and domestic fires that, while occurring at a small scale, may devastate communities when they are repeated and cumulative. The repeated impact of small disasters is also associated with vulnerabilities such as poverty and population density. Floods and landslides happen on a relatively routine basis during the wet season in Indonesia, while fires happen throughout the year but increase during the dry season. Flash floods can occur almost immediately after rainfall increases.

Significant floods happen mainly in urban areas, where dirty, clogged canals and outdated water management systems are evident. In areas undergoing rapid urban growth and with high-density housing and populations, floods can be a significant hazard, can destroy infrastructure, and can kill people who are caught in flood waters. Disease outbreaks can increase, too. Heavy rainfall is also responsible for landslide incidents. Landslide were the deadliest type of disaster during 2014, according to Indonesia's National Disaster Mitigation Agency (aka the *Badan*

Nasional Penanggulangan Bencana [BNPB]), because more than 17.2% of Indonesia's population lives in landslide-prone areas (Badan Nasional Penanggulangan Bencana [BNPB] aka Indonesia's National Disaster Mitigation Agency, 2015).

Structure fire is also a common hazard in Indonesia that may occur due to seasonally extreme weather, or problems related to Indonesia's urban condition, namely dense housing, poor fire service performance and lack of a fire safety attitude (Sufianto & Green, 2012). Although not significantly responsible for a high number of deaths, fires in Indonesia occur quite frequently, and economic losses to fire are increasing year after year, mostly affecting low- and middle-income earners (Sufianto & Green, 2012). Therefore, to improve disaster management in the face of such an abundance of risks, Indonesia should undoubtedly take advantage of and manage all potential resources available.

Factors driving disaster risks in Indonesia. One of the most prominent factors that drives disaster risk in Indonesia is its high population density (James, 2008). High population density poses many forms of risk, such as disease outbreaks or domestic fires that spread easily and cause heavy damage to community infrastructure, especially in areas stricken by drought and troubled by poor electrical infrastructures (James, 2008).

Socioeconomic inequality is also a driving factor of greater disaster impacts. In developing countries like Indonesia, socioeconomic status and infrastructure improvements are not equally distributed, which has led to some people becoming more vulnerable to disasters. In 2017, more than 10% of Indonesians lived under the poverty line (Badan Pusat Statistik [BPS] aka the National Statistic Center, 2018).

According to Fothergill and Peek (2004), poor people tend to be more vulnerable to disaster impacts as the wealthy have better access to resources.

Two other factors that drive vulnerability to disaster in Indonesia are low education levels and poor communication access, particularly in remote areas. There are still 26.4% of children aged below 15 years who have achieved only a low-level education (Siagian et al., 2013). This particular population segment tends to have less access to job markets, now and in the future, which leads them into unemployment or into positions paying low wages.

The lack of a reliable communications system that can cover all areas in Indonesia also limits access to disaster response in many remote places. Indonesia has such a large territory with population spread over so many islands. There are many areas that are remote or have limited access to transport and communication. Although telephone and internet are fairly popular in many areas in Indonesia, there are still many people who do not use or accustomed to such technology especially in villages or remote areas. Thus, installation of a warning system or risk communication system can be tricky or unreliable. Such diverse vulnerabilities pose challenges to all parties involved in Indonesia's disaster management community.

Volunteerism in Indonesia's Disaster Management Community

The disaster management framework in Indonesia. The document *Undang-Undang Republik Indonesia Nomor 24 Tahun 2007* (aka the UU 24/2007) (2007), which precipitated the establishment of BNPB in 2008 and the declaration of a national disaster mitigation planning strategy (the *Rencana Strategis Penanggulangan Bencana*), became the basic policy framework acknowledging the importance of integrated disaster management (BNPB, 2008). These basic policies

described central and local government's responsibility to recognise the dues and duties of local communities, private sectors and international organisations. The 2008 framework also described active, recognised phases in disaster management processes, funding and management of logistics and resources.

According to the UU 24/2007, the national Indonesian Government has delegated disaster command to the BNPB (BNPB, 2008). When a disaster is considered too small to be organised at the provincial or regional level, the coordination function is usually held by the Local Disaster Mitigation Agency, aka the *Badan Penanggulangan Bencana Daerah* (BPBD) (BNPB, 2008). Figure 2 shows the line of command in disaster management in Indonesia. In the UU 24/2007, the BNPB is positioned as the lead command agency and has full control of coordination functions during disasters. It also has the capability to instruct other disaster-related organisations (BNPB, 2008).

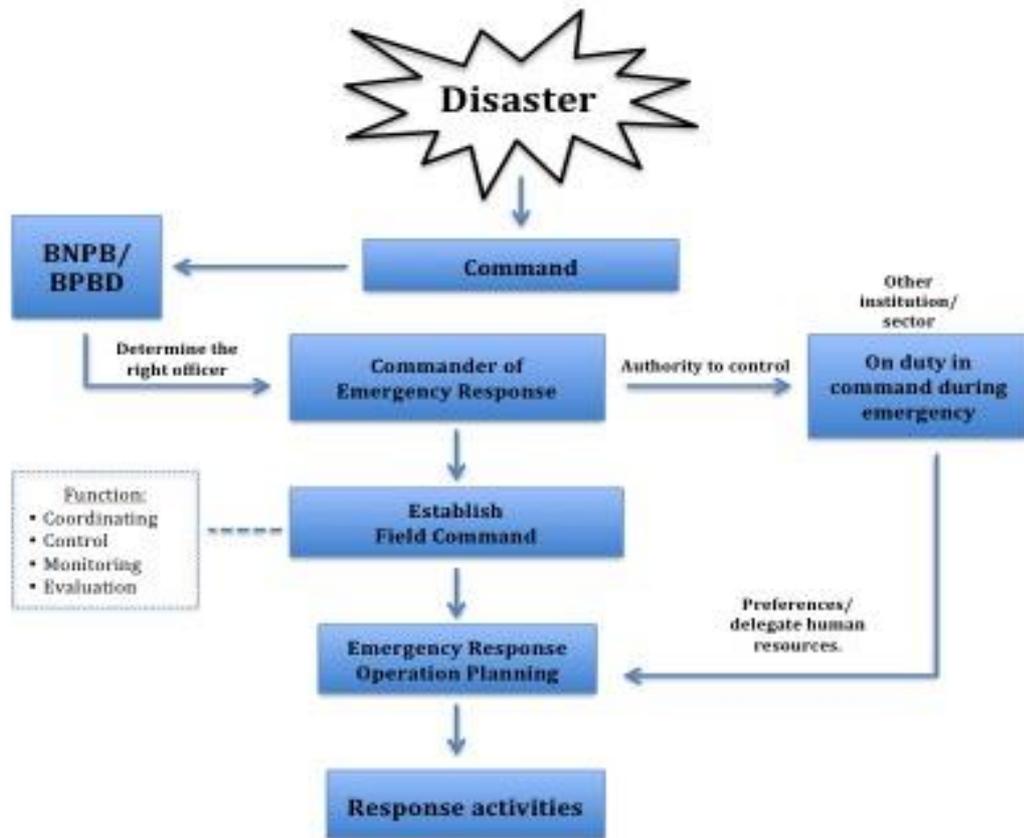


Figure 2. Indonesia's formal chain of command in disaster management. Adapted from the document of Peraturan Pemerintah (Government Regulation) No.21 Year 2008 on organization of disaster management (2008)

Volunteers' potential contributions to disaster management. It is nearly impossible to ask any government to be responsible for all aspects of disaster management without assistance from other parties, especially in disaster-prone countries such as Indonesia (Andreastuti et al., 2017). In the UU 24/2007, the Indonesian Government acknowledges the range of risks faced by the country, and therefore, in their risk reduction efforts and management of disaster, the BNPB as the extension of the Government recognises availability of support from volunteers in the community, private sectors and from international donors/NGOs (BNPB,

2008). In article 27, subsection B, the UU 24/2007 states, “Every citizen must participate in disaster response activity” (2015, p. 15) This instruction obliges individuals to take part in the activities of managing disaster organised under the BNPB’s jurisdiction. Thus, if every citizen does take an active role in disaster management, the country clearly has a huge number of human resources available to help during stressful times (James, 2008).

Before the establishment of the BNPB, the disaster model in Indonesia followed the response approach, where the main focus was in response, with little effort dedicated to mitigation or to risk reduction (Badan Nasional Penanggulangan Bencana [BNPB] aka Indonesia's National Disaster Mitigation Agency, 2015; James, 2008). Before the era of the BNPB, disaster volunteerism usually took the form of random and spontaneous actions characterised by a lack of coordination (Siagian et al., 2013). Disasters were attended by altruistic individuals who came spontaneously, without any coordination, and these attendees had the potential to disrupt the relief process (Mardiasmo & Barnes, 2015). This condition meant that any community’s voluntary participation during a disaster was characterised by “a strong component of chaos” (Andreastuti et al., 2017; James, 2008).

In 2014, a regulation from the BNPB was issued to organise volunteers in disasters. The *Perka* [Peraturan Kepala] *BNPB (Head of BNPB Regulation) (2014)* was formulated as a guide to categorise roles, dues and duties of volunteers from communities, NGOs, universities, the private sector and other related sectors, both before and during disaster responses. The process is still very new as of 2018 and may face many challenges and difficulties before it can be successfully and fully implemented. Thus, the current research is about exploring the challenges and

opportunities faced by volunteer groups in delivering their services during disasters in Indonesia.

Dissertation Outline

Chapter One has briefly introduced the concept of volunteerism in disasters and has outlined how volunteers in VERGs in Indonesia are positioned in the existing disaster management framework. In this chapter, the background of the research and why the topic is significant are explored. Furthermore, research objectives are explained to provide a clear rationale for the study.

In Chapter Two, academic literature pertaining to disaster volunteerism is critically reviewed, focusing on volunteers involved in VERGs, and on volunteers engaged in formal organisations providing assistance during and in the aftermath of disasters. In Chapter Two, the general insufficiency in understanding the roles of volunteers and their motivation to join disaster relief organisations is highlighted as one of the main gaps in the literature.

Chapter Three showcases how qualitative methods are applied in this study, outlining epistemological and methodological viewpoints. This chapter is also an outline of how interview techniques are used for data collection, as well as an explication of data analysis methodology.

In Chapter Four, findings are presented and research objectives are addressed. Chapter 5 presents an analysis of the relevance of the findings to the existing literature; explains the implications of the study; the relevance of the study to the current disaster management in Indonesia; explains the implications of the study for the volunteer network; clarifies limitations of the study; and proposes recommendations for future research.

Chapter Two: Literature Review

Background

This chapter reviews the literature related to the characteristics of volunteer groups responding to disasters, and their roles and contributions within the disaster management framework. The work in this chapter is carried out by reviewing journal articles and government documents pertaining to volunteerism in disaster, response management in Indonesia, and volunteers' motivations. The search engines used were Google Scholar and BNPB resource and document library. In emphasising this type of group and with a focus on Indonesia, the information gap in the literature about their roles, as well as the type of actions they perform in disasters, can be filled. This chapter also examines the collective behaviour and motives of the volunteers to provide responses or voluntary services during and after disasters, in an organised form. Common characteristics, types of volunteerism, group types and structures in non-governmental disaster management are explored. The motives of volunteers to join voluntary response groups and why they want to provide services in the aftermath of disasters are also analysed. Volunteers' roles and their likely contributions during disaster responses are reviewed. Finally, analyses of challenges and opportunities VERGs may face in the actual practice of disaster management in Indonesia are presented.

Overview of Disaster Volunteer Groups

Structures of disaster volunteer organisations. A range of studies defining voluntary services exist (Metz, McLellan, & Youniss, 2003; Sherraden, Stringham, Sow, & McBride, 2006). "Disaster volunteerism" has also been formally defined

(Drabek & McEntire, 2003; Twigg & Mosel, 2017; Whittaker et al., 2015). Table 1 provides information on how volunteer groups are set up, and their common structures. Sherraden et al. (2006) defined the organisational structure of volunteer groups based on the period of service. For example, short-term voluntary services usually facilitate short-term goals for members, such as fulfilling personal development and skill enhancement, while longer-term voluntary services are usually linked to a community's needs, e.g. environmental organisations or disaster response and relief in areas where the need is specific and clear (Sherraden et al., 2006).

Table 2

Types of Volunteer Groups and their Structures

Type of group	Organisational structure	Literature
Short term	Short-term goals. Exist to fulfill personal development. May facilitate establishment of a long-term service organisation	(Metz et al., 2003; Sherraden et al., 2006)
Long term	Tasks are linked to community's needs on an ongoing basis	(Metz et al., 2003; Sherraden et al., 2006)
Emergent	New people newly formed in a disaster situation. The leader is usually selected from experienced members	(Majchrzak, Jarvenpaa, & Hollingshead, 2007; Twigg & Mosel, 2017; Whittaker et al., 2015)
Informal	Old structure. Experienced members. Choose to work outside the formal system	(Drabek & McEntire, 2003; Whittaker et al., 2015)

Many times, disasters provoke urgent needs and stimulate those experiencing disaster to self-organise and perform improvised responses before the formal disaster management team arrives or is fully functional (Twigg & Mosel, 2017). Thus, informal volunteer organisations responding to disasters are set up by the affected

community, who consider their service as an alternative approach to the slow and often unaccountable formal emergency and disaster management option (Whittaker et al., 2015).

Another motivation provoking emergent community responses is to oppose what Drabek and McEntire (in Whittaker et al., 2015, p. 364) described as “assumptions made by the bureaucratic response system” towards community participation in disaster. Community movements may be established to challenge assumptions such as: inaccurate information is provided outside official channels; citizens are passive; and ad hoc responses are counterproductive (Trainor, Aguirre, & Barnshaw, 2008; Whittaker et al., 2015). For example, a group of concerned Indonesian citizens established the Jalin Merapi group, which provided an alternative channel for information about the Merapi volcanic eruption in 2006 that was considered by many to be more reliable than information provided by official channels (Mahaswari, 2012). This group was originally formed by individuals who had expertise in media communications. Later, the organisation became a reliable source of information in many subsequent disasters, even after their work in 2006 had finished (Mahaswari, 2012). Although similar organisations may later opt to work within the bureaucratic system (Gardner, 2013), many emergent organisations continue to adopt a non-routine form of response, which is only reactivated when another disaster happens (Majchrzak et al., 2007).

Moreover, many community participants are organisationally recruited volunteers. This type of volunteer falls within the description of a formal group (Twigg & Mosel, 2017). This type of volunteer group, which provides response services in a disaster, is newly formed only once the disaster occurs and is therefore classified as an emergent group (Drabek & McEntire, 2003). Scholars have

described the organisational structure of emergent groups as a precursor to the formation of long-term, informal disaster organisations (Guldåker et al., 2015; Voorhees, 2008). Such organisations most likely emerge in the spirit of the moment to respond to a community's need (Perry & Lindell, 2003; Voorhees, 2008). According to Burns and Stalker (in Voorhees, 2008), emergent organisations usually have a new, yet evolving, organisational structure. They also have a common framework of rules and a task distribution map for the entire organisation, in which communication channels and leadership are typically established by the regular attendees, semi-permanent volunteers or people with expertise in these areas (Voorhees, 2008). For example, someone who is experienced in jungle rescues may be the leader of an internal SAR team.

Types of disaster volunteering. An abundance of studies have provided concept descriptions for disaster volunteering. The commonly accepted Disaster Research Centre (DRC) typology (Drabek & McEntire, 2003) can be used to frame types of volunteer groups and can also be used to highlight the conditions under which they developed. Figure 3 summarises the types of organisations volunteers join to offer their skills. These groups are categorised according to DRC typologies (Figure 3).

The DRC typology identifies four kinds of organised response to a disaster. A type I group (an established organisation) is characterised by a definite structure and performs routine emergency functions. A type II group (an expanding organisation) typically performs non-emergency tasks but is involved in disasters and provides responses or relief services. Volunteers from this type of organisation usually have no daily role in the organisation, but become active during disasters.

Type III (extending organisation) groups have an established structure but are without a formal emergency role. An example of this type of organisation is Walmart's company response to Hurricane Katrina in 2005, which mobilised its employees to deliver food and clothing to the victims (Horwitz, 2009). Extending organisations such as Walmart usually work in conjunction with established disaster organisations. Lastly, type IV (emergent) organisations form directly after a disaster occurs but before official help, such as civil defence, arrives. These groups often come from the local surrounding areas.

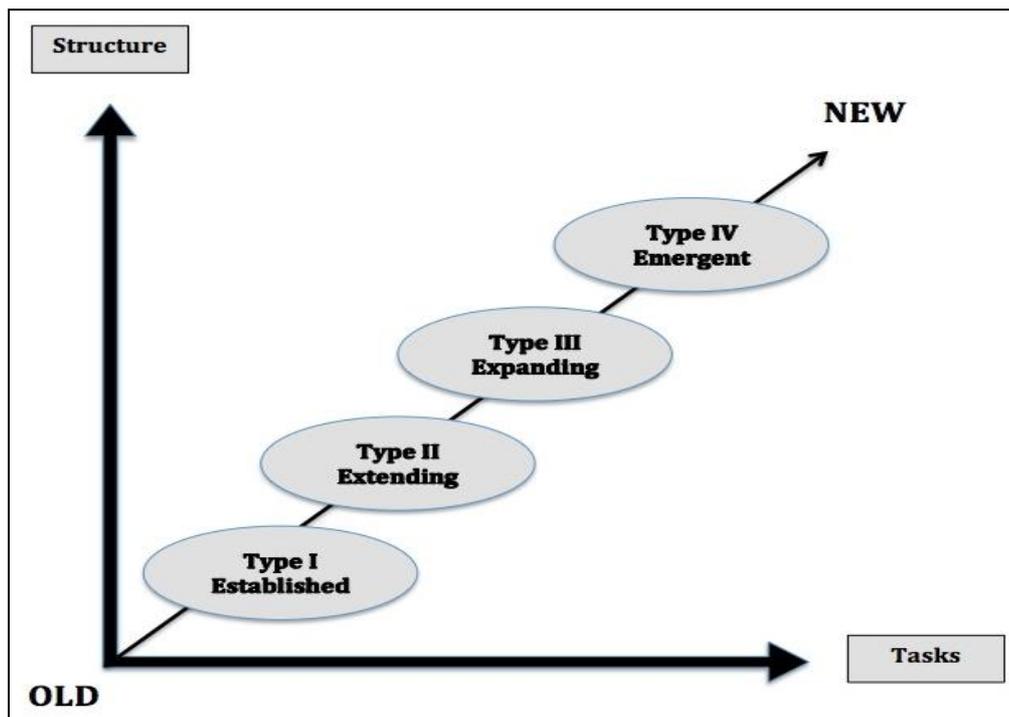


Figure 3. Types of volunteer groups participating in disasters. Adapted from the Disaster Relief Centre typology in Drabek and McEntire (2003).

Several studies have attempted to provide broader conceptualisations of volunteer types. Drabek and McEntire (2003) streamlined categories based on the DRC type I–type IV concept. In the modified typology, a quasi-emergent

organisation is the established organisation type that has a temporary, altered emergent function (Drabek & McEntire, 2003). For example, a fire department may take on temporary duties as a message carrier because a telephone line is faulty (Drabek & McEntire, 2003). In the Drabek and McEntire (2003) typology, the structure of an emergent group is based on the extending organisation that temporarily takes on the function of an established organisation. An example of this type of group is an amateur radio station, such as the one that took on the responsibility of offering a real-time, official weather service during the Merapi eruption in 2006 (Drabek & McEntire, 2003). The task-emergent group is an informally structured conglomerate that takes responsibility for another organisation's routine tasks during a disaster. For example, an informal task-emergent group may provide extra shelter for refugees because the disaster management agency, routinely responsible for providing shelter, is running short on shelters. Also, group emergence often occurs during a disaster. This type of group usually has a newly formed structure and a brand new function, and the group is formed from a blend of several organisations with their own, enduring structures (Drabek & McEntire, 2003).

Volunteer group typology can also arise from the perspective of affiliation to the formal disaster management system (Lee & Brudney, 2012). In disasters, volunteers from official response agencies work with others from self-organised response groups (Orloff, 2012). In general, volunteers who are a part of official response agencies are likely to have received some formal training in disaster management (Lee & Brudney, 2012). Prior to the occurrence of a disaster, these organisations provide training and skills to their volunteers in order to prepare them with relevant knowledge about disaster response activities (Barsky, Trainor, Torres,

& Aguirre, 2007). This type of volunteering within the formal organisational structure includes volunteer firefighters, medical professionals, and emergency responders who join an organisation affiliated with official authorities, or who join international emergency response teams. However, there are also many volunteers who do not belong to a formal group, who come from those organisations that provide only partial training but consider themselves as disaster response organisations (Whittaker et al., 2015). Some volunteers may also come from newly formed groups and may be participating in their first disaster response; these first-time responders are often referred to as convergent volunteer (Cone, Weir, & Bogucki, 2003).

Motives for Volunteering

The roles played by individuals and groups of citizens in emergencies and disasters can provide invaluable assistance to those affected by disaster (Whittaker et al., 2015). For example, following an earthquake in 2015, local Kathmandu residents came as the first responders to help rescue neighbours; they also generated online funds from fundraising schemes (Twigg & Mosel, 2017). Even with the most reliable disaster management system, the participation of local community members is essential: locals provide additional capacity in disaster management activities because they are usually first on the scene (Leitmann, 2007), and local responders remain long after authorities have gone home (Whittaker et al., 2015). Local people arriving at the disaster location are ready and willing to help with an immediate response (Orloff, 2012).

The reasons why people decide to allocate their extra time and energy to respond to a disaster are important indicators in managing disasters. Such

knowledge is important to assure the necessary provision of volunteers to help during emergencies in the future (Haddad, 2004; Helsloot & Ruitenber, 2004; Lowe & Fothergill, 2003; Whittaker et al., 2015). Research is needed to understand why existing volunteers maintain their collective affiliation in the long term: emergency response groups can provide an important means to initiate necessary connections between people during an emergency response (Rotolo & Berg, 2011). In fact, the collective behaviour of volunteers is based on social ties, which explains why these volunteers provide their service in an organised way. Existing social ties usually increase the chance for successful collective behaviour, where family or friends involved in the same response organisation provide a binding reason to join the group (Rotolo & Berg, 2011). Voorhees (2008) suggested a “paradigm to aid” is developed by existing volunteers as the motivating factor for new recruitments (p. 10). The nature of the crises, the tasks being performed and socioeconomic factors contribute to such a paradigm — for example, volunteers asking someone from the same socioeconomic background to join the same group (Voorhees, 2008).

There is sufficient literature that explains the motives behind volunteering in disasters. Altruism and social capital have been described as some of the most prominent reasons behind the emergent behaviour of volunteers (Lowe & Fothergill, 2003; Rodriguez, Trainor, & Quarantelli, 2006; Twigg & Mosel, 2017). Disasters often create what Dynes (as cited in Helsloot & Ruitenber, 2004, p. 103) described as “situational altruism”, which at many times, especially during large disasters, brings a massive wave of people to a disaster scene because they are willing to assist in any way they can. Response organisations may take advantage of the altruistic motivation by letting them work (Helsloot & Ruitenber, 2004). For example, NGOs limited by budgets and lack of staff often rely on spontaneous volunteers. For

example, a total of 220,000 volunteers worked under the banner of the American Red Cross during hurricanes Katrina and Rita (Sauer, Catlett, Tossato, & Kirsch, 2014).

Altruistic behaviour has also been linked with volunteers' religious backgrounds (Prouteau & Wolff, 2008). Although religiosity seems to be linked only with older volunteers, who see helping others as a religious obligation (Musick & Wilson, 2003), religious beliefs generally play an important role in driving people's participation (Drabek & McEntire, 2003).

Social capital is a second common explanation for why people volunteer. Social capital is a relationship concept that emphasises social networks and social structures to facilitate collective action for mutual benefit (Dynes, 2002). Such an expression of being connected to a place or social network is a reliable predictor of altruistic behaviour (Putnam, 2001). According to Lee and Brudney (2012), social capital explains how volunteering works in at least three ways. First, social capital lets the members of a community feel they can receive more direct benefits by collective volunteering, such as being able to work directly for their community; in addition, they feel that tasks can be finished quickly, as they do not need to provide time for introductions. These benefits can compensate for the costs of participation since the same network is collectively shared (Putnam, 2001). Second, volunteers use social ties to strengthen networks through expressions of belonging and the feeling of being linked to those who will benefit from one's service. Benefits of volunteering are greater for individuals with bigger networks since these volunteers are easily identified as having loyalty to their group, because the group is larger (Musick & Wilson, 2003). Last, social capital can increase people's chances of being asked to volunteer. Motivation to join an organisation can be stronger when a

value is shared by many people (Majchrzak et al., 2007). Hence, people who volunteer in a group are most likely to ask friends, family or someone they know to join their group.

The risky nature of disaster response can also become the attraction for a large number of volunteers (Lowe & Fothergill, 2003; Majchrzak et al., 2007). Disaster response is considered by many volunteers to be a high-risk activity that typically attracts young volunteers (Rotolo & Berg, 2011). Younger individuals tend to be interested in the thrill and excitement associated with this type of volunteering (Musick & Wilson, 2003).

Roles and Contributions of Disaster Volunteer Groups

Research in disaster volunteerism indicates great variety in what volunteers do at the disaster location (Barsky et al., 2007). Research on this topic usually attempts to challenge the assumption that informal emergency organisations have limited disaster management capability, and therefore should be managed and controlled by established organisations (Barsky et al., 2007). Wachtendorf and Kendra (2004) suggested that informal response organisations can fill gaps for certain capabilities that cannot be immediately filled by established organisations. Informal response organisations may have an advantage of being close to the disaster location, or sometimes, the scale of the disaster does not exceed local community requirements for assistance (Wachtendorf & Kendra, 2004). Moreover, the sense of being a part of the community also increases the motivation of local volunteers to help their affected community members (Wachtendorf & Kendra, 2004). Thus, the range of roles and contributions provided by disaster response groups very much depends on the location and the scale of the disaster (Twigg & Mosel, 2017).

The main purpose of a response activity is to deal with immediate impacts caused by a disaster, such as saving lives or protecting property (Carter, 2008). Numerous studies have described a range of tasks delivered by response groups (Drabek & McEntire, 2003; Guldåker et al., 2015; Wachtendorf & Kendra, 2004; Whittaker et al., 2015). These groups usually carry out immediate response roles such as SAR; first aid medical treatment; and evacuation (Twigg & Mosel, 2017). Most disaster research has focused on newly formed, emergent groups, and scholars have conceded that such groups develop new, unplanned structures during emergent activities (Guldåker et al., 2015; Quarantelli, 1994; Twigg & Mosel, 2017; Whittaker et al., 2015). The few studies done on pre-existing groups suggested these groups showed similar characteristics (Drabek & McEntire, 2003; Wachtendorf & Kendra, 2004). Given to the ambiguity and confusion inherent in emergency situations, tasks delivered by both established (e.g., police and fire departments) and newly formed response groups may not be planned, or individuals in the group might take on responsibilities they have never previously performed (Carter, 2008; Webb, 2004; Webb & Chevreau, 2006). Thus, these individuals may have specific response skills, but at times, they need to improvise their roles during a disaster response.

However, volunteer groups responding to disasters can also pose challenges to formally organised disaster management efforts. Volunteer groups may spring up of their own accord and may lead to an excess of volunteers with unnecessary skills, potentially overburdening essential emergency responders (Wachtendorf & Kendra, 2004). Many such organisations decide to take part in disasters by carrying out their own rescue tasks. However, many of these volunteers are unfamiliar with the response system and flock to the danger zone without proper personal safety equipment, thus creating more casualties (Thevanaz & Resodiharjo, 2009).

According to Barsky et al. (2007), the US Federal Emergency Management Agency (FEMA) has discovered many safety issues related to untrained volunteers responding to large-scale disasters such as Hurricane Katrina.

Volunteer groups responding to small-scale disasters. According to the UNISDR definition, disasters can be divided into small and large-scale ones (UNISDR, 2009). In UNISDR terminology, a small-scale disaster is defined as a type of disaster that only affects local communities and that may not require assistance beyond the affected community, while a large-scale disaster affects society at large and may require support from national or international aid organisations. However, literature about disasters mainly concentrates on large-scale disasters, and scholars may, like the authorities, have overlooked potential learnings to be had from small-scale disasters (Voss & Wagner, 2010). Large-scale disasters usually attract a massive movement of emergent volunteers coming not just from the surrounding area, but also those travelling from distant places (Twigg & Mosel, 2017). For example, during the Kobe earthquake in 1995, the arrival en masse of individuals and volunteer groups from everywhere around Japan received much media attention (Aldrich, 2011; Twigg & Mosel, 2017).

Usually, a flash flood affecting only several households in a small town is not considered relevant enough to be linked to the word “disaster”. Such events usually do not provide sufficient newsworthiness to garner political support for responses (Lyons, 2009; Voss & Wagner, 2010). The attention given to a disaster has always been associated with the quantity of losses, such as deaths or economic impact (Wisner & Gaillard, 2009). However, total financial losses from combined small, local disasters sometimes exceed the economic value of large-scale disasters; taken cumulatively, these small-scale disasters are considerable but tend to be neglected by

the media and decision makers (Wisner & Gaillard, 2009). This means communities affected by a series of small-scale disasters suffer officially unrecognised losses of property, life and the costs for response and recovery. In these cases, responses to disasters are initiated by affected communities, who self-organise (Lyons, 2009). Community-based informal disaster response organisations and other emergent groups are more often involved in smaller-scale disasters such as floods, mudslides and fires (Aldrich, 2011). These organisations often supply the first fighters at the scene to provide counter-disaster activities such as putting out fires or placing sandbags in floods; SAR; evacuation; and basic first aid, all while awaiting official emergency response teams — police, fire departments and medical professionals (Aldrich, 2011; Guldåker et al., 2015). The limited literature on small-scale disasters suggests that the role of the community in providing an informal response when official first responders usually take longer to arrive is critical (Voss & Wagner, 2010).

Disaster volunteer organisations in the Indonesian context. Although studies that describe community-based group activities during disasters in Indonesia are emerging today, studies providing theoretical justification for the structure of such organisations and their typical roles in disaster management are rare. Existing studies tend to concentrate on a particular skill or capability delivered by the group in a specific disaster, with less focus on general characteristics of such groups (Strandh & Eklund, 2017). Mei et al. (2013) referred to similar groups working in the response phase of a disaster caused by the Merapi volcanic eruption in 2010 as a “local response institution” (p. 363).

In Indonesia, there is a tendency to consider disaster management as the sole responsibility of the central and local governments; many ordinary people think that activities should focus on response, with fast and target-oriented actions (Indriasari, Anindito, Julianto, & Pangaribuan, 2017). Many researchers and disaster management practitioners believe that disaster management in Indonesia is very new and that responders are still lacking in the abilities to ‘comprehensively research, predict and prepare for disasters’ (Mardiasmo & Barnes, 2015, p. 6). Thus, high expectations propel community volunteers to respond to disasters ad hoc, with what they consider to be the most appropriate actions at the time.

A study by Strandh and Eklund (2017) that reviewed a range of research on the earthquake in Yogyakarta, Indonesia in 2006 suggested that most actively involved disaster groups providing an immediate response actually come from outside the affected area. This suggestion was also supported by (Kusumasari, 2012), who found citizens and response groups from distant places in Indonesia received information about the disaster through secondary sources such as social media. However, it is believed that such a phenomenon, where responders came from distant places, is visible only in large, national-scale disasters or those that receive much media attention (Saputro, 2016). In keeping with this assumption, a study by Leitmann (2007) on two smaller-scale disasters in Indonesia concluded that disaster management provided by local government, assisted by local response groups, proved to be generally effective in smaller scale disasters.

Indonesia’s policies on community participation in disaster. Indonesian authorities currently follow three important documents related to volunteer groups providing disaster response services: (1) the *Undang–Undang Republik Indonesia*

Nomor 24, Tahun 2007 (UU 24/2007, translated as the Constitutions of Republic of Indonesia Number 24, Year 2007 on Disaster Management in Indonesia); (2) the *Rencana Strategis BNPB Tahun 2015–2019* (Renstra BNPB 2015–2019, translated as the 5-year BNPB Strategic Plan on Disaster Management, 2015–2019; and (3) the *Peraturan Kepala BNPB Nomor 1422, Tahun 2014* (Perka BNPB 1422/2014, translated as Head of BNPB Regulation Number 1422, Year 2014 on Disaster Response Volunteers' Guidelines). These documents regulate disaster management practitioners in Indonesia.

The UU 24/2007 is a set of regulations that provides a framework for Indonesia's disaster management programme, while the Renstra BNPB 2015–2019 (Badan Nasional Penanggulangan Bencana [BNPB] aka Indonesia's National Disaster Mitigation Agency, 2015) specifies strategic national indicators that the BNPB wants to accomplish. The Perka BNPB 1422/2014 (BNPB, 2014) regulates the capacity and roles of volunteers in disaster responses. Figure 4 summarises a range of possible tasks volunteers can perform, as negotiated between the Government of Indonesia and voluntary community participants, and as per policy documents.

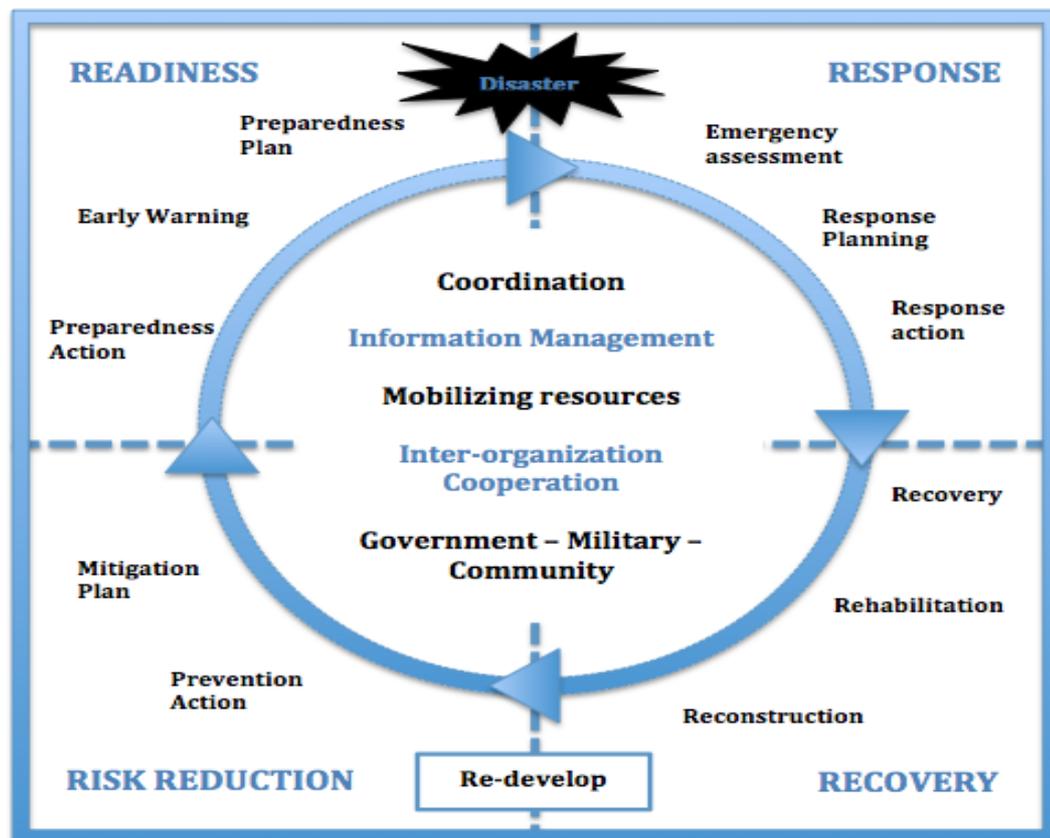


Figure 4. A range of tasks possible with collaboration between official disaster management agencies and voluntary community organisations (adapted from UU/2007, Renstra BNPB 2015–2019 and Perka BNPB 1422/2014).

According to these documents, disaster management is a shared responsibility of national and local governments that includes a range of activities that cover before, during and after phases of a disaster. While national disaster status is issued by a Presidential Decree, disaster decrees at the provincial and regency levels are issued by the local government and are organised by the BPBD. These documents frame voluntary community participation as an inseparable part of the disaster management process, established through cooperation and coordination with the BNPB. The documents state that tasks and responsibilities are shared between government agencies, the military and communities.

Chapter Conclusion

Informal voluntary groups working as respondents to disasters have been widely discussed by scholars of disaster volunteerism (Twigg & Mosel, 2017; Wachtendorf & Kendra, 2004; Webb & Chevreau, 2006). Although disaster management literature has emphasised that people affected by disasters are generally not at all helpless, individuals and groups still come to disaster locations, motivated by good intentions to provide immediate help. These individuals may be affiliated with certain groups that are working outside the officially established system. They may have received either basic or advanced disaster management training. This type of group usually takes on non-routine tasks in disasters and adapts new or evolving forms of organisational structure. Such groups mostly provide basic services during the response phase; may work independently; and at times, have the advantage of being the first responder at the scene. Although the motivation to join more established response groups is there, altruistic behaviour and social capital are the more common reasons for new volunteers to join and maintain their engagement to their chosen organisation. Such organisations' involvement in disasters may depend on the scale and location of the disaster, and can be improvised according to the immediate need for a response. Large-scale disasters usually attract response organisations from faraway places, while smaller-scale disasters are typically attended by local response groups. Although these groups may pose challenges to authorities in delivering their services, which are related to a limited disaster management capability and safety concerns, voluntary response groups continuously take opportunities to engage with the disaster management system as they arise.

Chapter Three: Research Methods

Background

This chapter outlines the methodology used in the present study. This study is intended to explore the motivations, roles and contributions of VERGs in disaster management in Indonesia. Studying volunteers involved in disaster management in Indonesia is crucial in order to understand the key roles VERGs play in providing services outside the formal system. The results will fill a knowledge gap about the *actual* roles these groups play versus expectations, or *perceived* roles. Filling this gap may promote better participation of VERGs in future disasters.

In this chapter, the rationale behind using a qualitative, descriptive approach is described. The qualitative approach used in this study allows in-depth exploration of the nature of disaster volunteerism in Indonesia. Despite the extensive literature on disaster volunteerism, very limited literature in the Indonesian context exists. Next, the data collection process is explained. Sampling strategy, methods used in this study and ethical considerations are discussed. Finally, the analysis of data obtained from interviews is described.

Rationale for Using a Qualitative Approach

The current research is based on the interpretivism paradigm, which adopts the view that social construction by human actors is based on current knowledge of our reality (William, 2000). The qualitative approach fits the views of interpretivists and is used because this study is about understanding the nature of volunteer participation in VERGs via an exploration of their experiences and perspectives. According to Vaismoradi, Turunen, and Bondas (2013), the main goal of qualitative research is to understand a phenomenon from the perspectives of those experiencing

information remain secured from third parties and can only be accessed by the researcher and research supervisors. In addition, the handling, storage and destruction of data gathered were carried out in accordance with AUTECH guidelines (AUTECH, 2016).

Selecting the study sites. Specific research locations were selected based on their relevance to the research (Ritchie, Lewis, Nicholls, & Ormston, 2014). Therefore, the researcher decided to select Makassar and Luwu Timur, both in South Sulawesi Province, Indonesia, as research locations. Figure 5 shows the two locations in relation to Indonesia as a whole. Both locations were selected based on the researcher's disaster response experience. The researcher has lived and worked in both locations; the advantage of a previously established professional and social network aided data collection. These locations have endured many hazards affecting local communities, namely floods, landslides and fires; therefore, many local VERGs are based and are currently operating in these areas.



Figure 5. The Makassar and Luwu Timur study sites in South Sulawesi Province, Indonesia.

Notes. Image is open access, retrieved from <https://www.mapsofworld.com/indonesia/makassar.html> on October 22nd, 2017. (Maps of World, 2017b)

Luwu Timur is a remote mining area where a multinational mining company is located and has contributed vastly to the development of the township. Contrary to the situation in Makassar, where transportation is established, Luwu Timur can

only be accessed by overnight bus from Makassar. Given the distance and remoteness of Luwu Timur, the researcher found it difficult to access many VERG volunteers who had had considerable experience in emergency response.

Researcher's positionality. The researcher was aware that conducting research in the field of disaster volunteerism in Indonesia could be beset by many challenges. First of all, the lack of literature describing disaster volunteerism in Indonesia potentially limited the exploration of specific topics. Second, Indonesia's massive territory made it almost impossible to obtain a large enough participant sample for the purposes of achieving a consistent result. Third, there is still no specific jurisdiction for registration of VERGs in Indonesia. Therefore, selecting the right organisations as information sources based on their specific tasks in responding to disasters was challenging.

However, it is important to accentuate that the researcher is from Indonesia and has had more than 10 years' experience working with VERGs. It is also important to note that the researcher began volunteering in humanitarian work 20 years ago and has been involved in many disaster responses and relief activities. Hence, the researcher has a sufficient understanding of how disaster management usually works in Indonesia. According to Gray (2003), experience is one of the most useful components in the development of cultural studies as it can greatly contribute to the dynamic of the study.

The researcher is also familiar with local norms and cultures, which was beneficial in building close relationships with participants. The researcher is familiar enough with particular local geography and ways of living to be defined as a "local" researcher. According to Wicker and Sommer (1993), while the broad-based

researcher tends to focus on a larger academic community, local researchers address local issues and concentrate on producing results that contribute to community well-being. One of the particularly important aspects of local researchers acting within their own communities is the capacity of the researcher to identify and to understand the experiences of participants, and to present the information to scholars operating in different cultural settings in an understandable way (McAllister, Green, Terry, Herman, & Mulvey, 2003).

Sampling strategy and recruitment of participants. Purposive sampling was used in this study, based on the samples' relevance in addressing research questions. Sampling strategy in this study was based on the particular characteristics of participants, and the aim was to explore participants' perspectives on VERGs. The focus was more on analysing experiences deeply, rather than analysing a large quantity of experiences; thus, the study emphasised the discovery of meaning instead of making generalised affirmations (Ritchie, Lewis, & Elam, 2003). Rather than analysing a large sample, the more important objective was to achieve data saturation (Mason, 2010).

Recruitment for this study was done by accessing the researcher's previous social network and by using promotional materials. The researcher contacted several VERGs known to have dedicated Facebook pages (Figure 6). The category of the organisational scale was used to identify volunteers from local VERGs vs. large-scale organisations (national or international). Selection of interview participants was also based on years of experience in volunteering or working with VERGs and number of times the VERGs were involved in disaster responses.



Figure 6. Volunteer emergency response groups (VERGs) based in Makassar and Luwu Timur, Indonesia, with dedicated Facebook pages.

Note. Facebook pages made recruitment of participants possible.

Permissions to visit and to interview volunteers from each group were received through social media (via Facebook and the WhatsApp application). Two weeks prior to interviewing, the researcher distributed promotional pamphlets (Appendix A) for recruitment. Group leaders then provided names and contact details of participants who agreed to be interviewed via email (Appendix B) and WhatsApp. Recruitment of the one participant from the official disaster management institution (Indonesia's BPBD) was carried out by contacting the staff whose work was relevant to disaster volunteers' work. The officer's position is the

closest entity related to disaster volunteers. Contact details were gained from a publicly accessible, provincial BPBD Webpage.

A total of 10 participants were recruited for the present study, which was considered a sufficient number. Participation of at least six people is considered appropriate to achieve saturation in a qualitative dataset (Guest, Bunce, & Johnson, 2006). The researcher interviewed volunteers from VERGs of at least three different group types to better address research objectives. One government official was selected from the BPBD, the extension agency of the BNPB. The public servant was selected based on rank and the alignment of the job description with VERG roles. Several participants were also recruited through a snowballing technique, where participants were chosen based on staff recommendations. Snowballing is a commonly used technique in qualitative studies in which a researcher recruits more participants based on the recommendations of already-recruited participants (Atkinson & Flint, 2011). The snowballing technique allowed the researcher to access hard-to-reach participants (Streeton, Cooke, & Campbell, 2004). The technique was utilised because the researcher was concerned the desired quantity of participants would not be reached, especially considering the travel distance to study sites.

Emailed confirmation letters were sent to participants prior to interview. All communications and recruitment materials were presented in the *Bahasa Indonesia* language. Conducting research in the participants' own language was important in making it easier for participants to understand the research, and thus, enabling them to provide appropriate responses to the interview questions (Johnson & Christensen, 2012).

All participants selected for this study had volunteered in their groups or had had experiences in disaster responses for at least 5 years. Their depth and length of experience allowed the researcher to gain rich information. The scale of disasters experienced by the participants was also recorded to get an understanding of VERGs' scope of contribution. Lastly, the scale of VERG organisations in Indonesia was also noted, because it was relevant to the scale of their activities and the resources they possessed. Table 3 summarises the affiliations and experiences of participants taking part in this study.

Table 4

Summary of Participants' Experiences and VERG Affiliation

Participant number	Organisation typology (VERG/Government)	Participant gender (M/F)	Years of volunteering experienced	Scale of disasters experienced (S/L)	Scale of organisation
1	Government (provincial BPBD)	M	>10	S	Local provincial
2	Humanitarian VERG	F	>10	S	Provincial
3	Humanitarian VERG	F	5–10	S	Provincial
4	Humanitarian VERG	M	>10	S/L	City/district
5	Faith-based VERG	M	5–10	S/L	International/national
6	Faith-based, community- based (university) VERG	M	>10	S	City/district
7	Faith-based, community- based VERG	M	>10	S/L	Provincial
8	Community-based VERG	M	>10	S/L	City/district
9	Community-based VERG	M	>10	S	City/district
10	Community-based VERG	F	5–10	S	City/district

Abbreviations. F, female; L, large scale; M, male; S, small scale.

Interviewing process. The researcher provided an information sheet (Appendix C) for each participant that included general information about the study, a description of the aims of the study, its methodology and procedures as well as an assurance of confidentiality. The information sheet was provided at the beginning of the recruitment process and was recited verbally to each participant before the interview started. The participants were also given a consent form (Appendix D) to sign before the interview. The information sheet and consent form were written in the Indonesian language (*Bahasa Indonesia*) and were available for the participants to read and understand before signing.

Data were collected using semi-structured interview techniques with open-ended questions. A series of pre-determined, guidance questions were developed to help the researcher stay on topic, yet allow the participants to develop their thoughts about the particular issues under discussion. The semi-structured questions provided reliable, comparable and qualitative data (Bernard, 2011). Some predetermined questions were asked, such as how long the participant had been involved in their VERG of choice, what their motives were in joining the group, how the group recruited other volunteers and what the participant perceived as opportunities and challenges in disaster management.

The set of questions was slightly changed to cater to the one participant from a government department. All participants were asked about what they thought about the VERG position in formal disaster management processes and what they perceived as VERGs' strengths and weaknesses. This set of questions was formulated as a way to consider the benefits of cooperation between VERGs, and between the Government and VERGs. Each interview lasted approximately 30 minutes to 1 hour and was conducted in *Bahasa Indonesia*, using the most spoken

dialect. Locations for interviews were selected based on researcher and participant agreement prior to the interview, with full consideration for the comfort, privacy and safety of both the researcher and participant.

The researcher also contacted participants with follow-up questions when further information was required, or when their answers needed additional explanation. In such cases, information was received from the participants through other communication methods, namely emails, social media chats (on WhatsApp) and text messages. These follow-up methods were used to provide additional information, to clarify points covered in the interviews and to explain research outcomes. Follow-up methods were discussed with the participants during the interviews, and all participants were willing to provide further information as required.

Data Analysis

Qualitative descriptive research data analysis strategies first mooted by Neergaard, Olesen, Andersen, and Sondergaard (2009) were adopted. All data gathered from the interviews were translated from *Bahasa Indonesia* into English. Translations were conducted after all interviews were completed. The researcher repeatedly recited the interview results to familiarise himself with the data. Thematic analysis was used in analysing the data gathered from the interviews. Common themes arose and were analysed if they were relevant to the research question and objectives (Joffe & Yardley, 2004). Once the researcher was familiar with the data, information from notes and interviews was coded based on repetitive words or phrases. The researcher then re-analysed important points, noting similarities and differences. Later, the researcher separated repeated statements into

groups of themes and compared the themes to existing academic knowledge (see “Chapter Two: Literature Review”).

A combination of content and thematic analysis was used to recognise patterns within policy documents where documents showed similar characteristics. The same predefined codes used for interview note analysis were also used for the analysis of policies and other official documents. The strategy used to analyse documents involved a superficial examination, followed by thorough examinations, and finally by researcher interpretation (Bowen, 2009). In the policy document analysis, the researcher had to identify the relevant information and separate it from the less pertinent information.

Chapter Conclusion

A qualitative descriptive methodology was applied to this study, as it was the most appropriate considering the objectives of this research. Data were collected using semi-structured interviews with open-ended questions. Data were analysed using thematic analysis on recurring, significant themes. This type of analysis enabled the researcher to gain an in-depth understanding of the findings. These findings are presented in the next chapter.

Chapter Four: Results

Background

This chapter presents findings from the interviews with nine participants who were serving in VERGs, and one government official who was working closely with VERGs. This chapter also describes VERG roles in the disaster management process. For years, volunteers have been involved in response activities and have worked alongside formal institutions to provide basic needs for those affected by disasters, in both small- and large-scale disasters. To date, a knowledge gap on the characteristics of VERGs and their roles in disasters has persisted. Therefore, it is important to understand the formation of VERGs and how they manage their resources and services in complementing current disaster management agencies in Indonesia.

The next section describes the profile of VERGs, their organisational structures, what components the organisations have and how they maintain their funding and resources. The following section describes VERG formation and volunteers' motives for joining. Further discussion describes how participants perceived the roles and contributions of VERGs in the disaster response phase at the time they were interviewed. This chapter also describes the type of activities VERGs in Indonesia deliver during non-disaster periods, and what kind of disasters they usually respond to. The final discussion examines potential challenges and opportunities VERGs face in practice, and how the formal disaster management system portrays their expectations of VERG involvement.

Organisational Characteristics

Common organisational structures. Understanding the shape of the typical VERG organisational structure is important in determining how these groups organise themselves and maintain their activities. Findings indicated that most VERGs were generally of three types at the time of the study. These types were humanitarian, faith-based and community-based. Humanitarian VERGs were similar to expanding organisations that performed non-emergency core activities, but also undertook regular emergency tasks, as defined by DRC typology (Whittaker et al., 2015). Most VERGs of this type were well established and had affiliations with, or received funding from, international NGOs such as Red Cross and Red Crescent. Faith-based VERGs were organisations that were religious in nature. Their sources of funding were usually from religious groups or people of the same faith, and their activities were related to missionary motives. Community-based VERGs were generally comprised of local people with disaster response capabilities. This particular type of group often emerged from a local community that had previously experienced disasters, or arose from within schools, universities and private sector organisations where members shared the same interests in disaster response.

Results indicated that in Indonesia at the time of the study, disaster volunteering was carried out by organisations rather than individuals. This preference was generally based on the rationale that individuals simply do not have the resources to provide assistance in disasters. This concept of volunteer space is similar to the idea that volunteer activities are generally associated with organisations at some level (Scheier in Cnaan, Handy, & Wadsworth, 1996, p. 368). Results indicated that there were differences in organisational characteristics

between each VERG that related to their typology. Table 4 shows the common denominators of each type of VERG represented in this study.

Table 5

Common Composition of VERGs in Indonesia

	Humanitarian	Faith-based	Community-based
Organisational structure	<ul style="list-style-type: none"> • Have a director and administrators who are selected based on competencies • Periodical tenure for unpaid volunteer positions only 	<ul style="list-style-type: none"> • Have a director and administrators who are selected based on specific competencies • Usually no periodical tenure 	<ul style="list-style-type: none"> • Have a director and administrators who are selected based on years of experience in disaster response • Director and administrators may have periodical tenure
Paid positions	<ul style="list-style-type: none"> • Limited to certain competencies 	<ul style="list-style-type: none"> • Limited for managerial positions 	<ul style="list-style-type: none"> • Not available
Size of organisation	<ul style="list-style-type: none"> • Usually large, > 500 volunteers • Have local, city and provincial representation 	<ul style="list-style-type: none"> • Small number of members • Recruit spontaneous volunteers in response activities 	<ul style="list-style-type: none"> • Small- to mid-size groups, might reach hundreds after a few years of recruitment
Gender ratio	<ul style="list-style-type: none"> • M > F 	<ul style="list-style-type: none"> • M > F 	<ul style="list-style-type: none"> • M > F
Age groups	<ul style="list-style-type: none"> • Late teens to early thirties 	<ul style="list-style-type: none"> • Late teens to early thirties, with a good proportion of older volunteers 	<ul style="list-style-type: none"> • May start from 14 years old, but mainly late teens to late twenties • Small proportion of volunteers >40 years old
Volunteer skills	<ul style="list-style-type: none"> • Nationally or internally certified 	<ul style="list-style-type: none"> • Internally certified 	<ul style="list-style-type: none"> • Internally certified
Volunteer employment status	<ul style="list-style-type: none"> • Some of the higher positions within are paid jobs 	<ul style="list-style-type: none"> • Many of the volunteers have other paid jobs 	<ul style="list-style-type: none"> • Usually unemployed or earn from temporary jobs

Abbreviations. F, female; M, male; VERG, volunteer emergency response group.

As the most common type of disaster volunteer space in Indonesia, VERGs adopt the normal structure of any organisation: they have a director, administrator and coordinator for each programme or activity. Such groups usually distinguish positions according to a volunteer's length of participation in the group and their experience in large-scale disasters. Traditionally, those volunteers who have been with the group for a long time and have had experience in large-scale disasters take higher-level positions, or have a better chance to act as a coordinator during disaster responses.

Positions in VERGs are generally non-paid, although there is an exception within some humanitarian and faith-based VERGs that have international affiliations, such as the Indonesian Red Cross. This type of organisation usually pays salaries based on specific competencies. One of the participants from this group explained:

“To be able to apply for a position, staff must have specific competencies. As in my position, I have a certificate of competency nationally recognised by Badan Nasional Sertifikasi (the National Certification Board) in data and information management. I had to climb a few ladders to gain that certification.”

— P4, Male volunteer (humanitarian VERG)

More established VERGs usually recorded more precise and detailed information on their volunteers, while others did not have as accurate a database because they were relatively small. One of the smaller-size VERGs revealed that they had a target for recruitment of 50 volunteers per annum, and they claimed that roughly around 40%–60% of recruits were still actively contributing to various activities. Smaller VERGs indicated that during a response, they engaged

spontaneous volunteers who were not members of the group before the emergency. The numbers of these spontaneous volunteers usually went undocumented.

Results also indicated that people were most likely to volunteer during the young adult stage of their lives. Those in their late teens to late twenties or early thirties generally represented this stage of life. In general, VERGs in Indonesia had very few volunteers from older age groups. The same pattern was present in all of the VERGs included in the study. Disaster volunteering started as early as 14 years of age in some of the community-based VERGs. Participants revealed that most of the volunteers who actively dominated response activities did not have full-time employment, although a few were earning income from part-time, ad hoc work. Being unemployed meant that they had more spare time to use for activities outside the home.

Volunteers in VERGs were mainly male. One of the participants, who was also the initiator of a community-based VERG, mentioned that the ratio of male to female volunteers in his organisation was about 5:1. This estimation was confirmed by other participants to be the common gender proportion in most VERGs. Cultural practices played a significant role in the unequal gender balance in VERGs because it was perceived males could get permission to do outdoor activities more easily, while females were expected to stay at home. As one of the female participants said:

“Usually, female volunteers are put in the kitchen and do the cooking. It is some kind of gender preference in times of disaster. Male volunteers are usually upfront doing all the lifting and hard work.”

— P2, Female volunteer (community-based VERG)

The common perspective of gender mainstreaming in Indonesia is that women are usually responsible for wifely tasks, while men are more into leadership and public matters (Blackwood, 2007), and this perception is associated with the gender imbalance in VERGs.

Typical sources of funding. The typology and allegiances of VERGs play an important role in generating funding. Table 4 describes the typical sources of funding for each VERG participating in this study.

Table 6

Sources of Funding Based on VERG Typology

VERG group type	International	National	Local
Faith-based	<ul style="list-style-type: none"> Received funding mainly from international sources 	<ul style="list-style-type: none"> Received partial funding from national partners or Government 	<ul style="list-style-type: none"> Received small amounts from local sources
Humanitarian	<ul style="list-style-type: none"> Received small amounts from international sources for daily activities Received large amount of international aid for large-scale disasters 	<ul style="list-style-type: none"> Received funding mainly from an umbrella organisation at a national level 	<ul style="list-style-type: none"> Received small amount from local sources
Community-based	<ul style="list-style-type: none"> Less likely to have international affiliations 	<ul style="list-style-type: none"> May have received a small amount of Government aid or funding from private companies 	<ul style="list-style-type: none"> Main source of funding was from volunteers' own pockets or from local citizens

Groups that were faith-based, and those with an international humanitarian service affiliation, usually had a specific section within the organisation devoted to obtaining funding. Funding usually came from a greater network at the national or international level, and funds were used to cover the costs for equipment, activities and transport.

“Our funding comes from all over Asia.”

— P5, Male volunteer (faith-based VERG)

Participants acknowledged reimbursement as a way to conserve the “unsalaried nature of volunteering”.

“We may get reimbursement for airplane tickets to the disaster zone and for operational costs while on location, but that’s about that.”

— P4, Male volunteer (humanitarian VERG)

In contrast, participants from community-based VERGs indicated the struggle to get funding for their activities was difficult. The main source of funding for these VERGs came from donations collected from concerned people and was collected during spontaneous fundraising events for a specific disaster (Figure 7).

As one of the participants said:

“We receive food and old clothes from supportive community members. We also do fundraising and collect money from concerned citizens, usually at [street] intersections or busy places.”

— P9 Male volunteer (community-based VERG)



Figure 7. Community-based VERG fundraising activity. Author's own (2017).

One common community-based VERG source of funding came from financial proposals the groups submitted to governmental agencies. Thus, if a proposal for aid did not get approval, or if the group's budget to contribute in a disaster response was limited, they usually would decide not to deploy a team, and the money or donations collected would be channeled through other organisations. This description highlighted funding as a limitation for community-based VERGs.

Response capabilities and competency levels. In well-established VERGs, training materials were usually arranged by a certified national board, and materials were used as general guidelines for internal trainings. In contrast, smaller VERGs depended on their older members to become human resources and to deliver internal trainings for new recruits. These older members usually had had experience in disaster responses, or had had training related to survival skills. They may have

received occasional training from governmental bodies, but mostly, no tiered competency ladder existed in community-based VERGs, and it was common for them to ask outside professionals to provide training. For example, they might ask nurses, paramedics or doctors to train their volunteers in basic first aid, or group leader might request SAR personnel to share their skills on jungle survival or how to read a contour map. Thus, response guidelines were based on internal interpretation and were not necessarily upgraded regularly. When asked about permits to start a VERG and what qualifications were needed to become a disaster response trainer, one participant explained:

“I don’t think there is any permit required [to establish a VERG]. I think my most important qualification was the training I had from the Australian Army in jungle and mountain rescue. I got the qualification as the assistant trainer of jungle and mountain rescue. I also received a training of trainers qualification for first aid from International SOS [an internationally renowned medical and travel security services firm].”

— P8, Male volunteer (community-based VERG)

Each VERG usually focused on a particular set of skills that defined most of their delivered services. A VERG could be a SAR group; others used their medical capability and concentrated on providing medical assistance during disasters. However, all interviewees claimed that they received much training related to many aspects of disaster management, such as response planning, quick assessment, geographical information systems (GIS), SAR and evacuation, public kitchen management, first aid and water sanitation.

Group Formation and Motives for Volunteering

The formation of VERGs, especially those in local communities, usually did not take long. According to interviewees, anyone could establish a VERG as long as they had ready volunteers and a place to meet and use as an administrative office. Volunteers usually shared the same interests in disaster response, with different motives for their participation. Table 5 summarises various motives of the participants for initiating or joining a VERG.

Table 7

Volunteer Motives for Joining or Initiating VERGs

	Humanitarian	Faith-based	Community-based
Risk perception	<ul style="list-style-type: none"> • Participants had a perception that Indonesia had many potential hazards • Disaster management as chaotic and uncoordinated • Government unable to do it alone 	<ul style="list-style-type: none"> • Disaster was God's order • Disaster always brought devastating damage to brothers by faith 	<ul style="list-style-type: none"> • Volunteers were living in disaster-prone areas • Had experienced disaster before
Social capital	<ul style="list-style-type: none"> • Family members or friends were already in the organisation 	<ul style="list-style-type: none"> • Family member or friend is already in the organisation • Had joined similar faith-based organisation previously 	<ul style="list-style-type: none"> • Collective social interaction • Sense of belonging to the place
Altruism	<ul style="list-style-type: none"> • The calling. Volunteers felt the urge to help people in need 	<ul style="list-style-type: none"> • Felt the importance of helping • Satisfaction. To be able to ease others' misfortunes 	<ul style="list-style-type: none"> • Social responsibility • A way for volunteers to contribute to the community
Religion	<ul style="list-style-type: none"> • Participants were all Muslims and influenced by Islamic teachings, such as <i>Pahala</i> and the karma of good deeds 	<ul style="list-style-type: none"> • <i>Da'wah</i> (missionary). A perception that Muslims should strengthen their religious attainment by becoming a good example to others • <i>Pahala</i> (fruit of good deeds). A belief that good deeds will be granted fruition by God in this life or in the life after 	<ul style="list-style-type: none"> • Participants were all Muslims and influenced by Islamic teachings, such as <i>Pahala</i> and the karma of good deeds
Human capital	<ul style="list-style-type: none"> • Network for jobs (labour market) • Chances for paid positions in the organisation 	<ul style="list-style-type: none"> • Chances for paid positions in the organisation 	<ul style="list-style-type: none"> • Expected information from volunteers to volunteers about employment or job networks

Most VERGs were formed based on volunteers' perceptions that Indonesia is a country with a significantly large range of natural hazards. Many of the participants considered disaster as a complex problem that required the community to provide alternative channels for response. Participants thought of this channel as the collective interaction of neighbours taking care of neighbours. Therefore, social capital could be considered as the primary motive for their initial involvement with VERGs. Some of the participants acknowledged that they were interested in joining a VERG after one of their family members or friends informed them and asked them to join. One VERG initiator said:

“It was in my first year of college when recruitment for volunteers was opened at my campus's KSR. A friend who has another family member in the organisation asked me to register with her. Actually, I was not really serious about joining the organisation other than just to accompany my friend.”

— P3, Female volunteer (humanitarian VERG)

Most of the participants also referred to altruism as their main reason to initiate or to join a VERG. Participants described altruistic behaviour such as “their calling” or “social responsibility”. They considered volunteering as a way to express their affection for and sympathy with the affected community. Being disaster volunteers meant they were able to demonstrate a high level of concern for many problems of humanity.

“My interest has always been in response and humanitarian work. Whenever I find someone who needs my help, I have always moved to help. Up to this very moment. And I will always be like that. It is not only limited to my family or someone I know. I just want to

help. For 24 hours, my mobile is never silent or off. When someone asks for a blood donor, for example, I will do it, or I will contact someone who might be able to do it.”

— P4, Male volunteer (humanitarian VERG)

The motivation to maintain their service and to continue to volunteer was also shaped by their religious views. Although participating in VERGs of different types, all participants were Muslims, and there was a strong indication that their religious beliefs played a big part in driving their enthusiasm. They believed that helping to ease other people’s misfortunes in disasters would award them with good karma in this life or in the life after. As one of the participants explained:

“I think ... because our organisation has a spiritual motivation. We believe, when we sincerely help other people, God will make our matters in life easier. There is something called *amal jariyah* [Alms] that can add to the value of your worshipping. So, there is a spiritual base to our activities.”

— P7, Male volunteer (humanitarian VERG)

Another participant stated:

“I can get some sort of satisfaction after doing social work. There is one *Hadith* [narration of a life event from Prophet Muhammad PBUH], “*Khairunnas Anfa’uhum Linnas*” [the best of people are those that bring the most benefit for the rest of mankind]. This is my social contribution to the community ... Islam teaches us to help other people in need, especially in disasters, and grants us with *Pahala* [the fruit of good deeds]. I am sure there is similar motivation in other religions.”

— P5, Male volunteer (faith-based VERG)

Although less visible, human capital was also a motive for participation once the volunteers became more active within their organisations. Social networking in the form of a possibility of a paid position within the organisation, or more likely, information about business opportunities outside the organisation that might yield extra income, were motivation enough to be actively present or involved in every activity. As one participant revealed, the opportunity to get information about labour markets within his organisation motivated him:

“There are many opportunities for employment [labour markets around the area] spoken about in this organisation, so it can be good for your future. Here [his VERG], we can network with people who share information about job openings in many companies located nearby, like ... [mentions the name of a multinational mining company located in the area].”

— P9, Male volunteer (community-based VERG)

Keeping up a thorough performance record and/or an active presence, volunteers felt they could increase their chances of benefiting by being able to apply for higher or paid positions within VERGs:

“I am not the kind of person who has great ambitions for higher positions. I just need to focus on my work and my contribution. Later, the boss might see my potential and select me for a higher position.”

— P4, Male volunteer (humanitarian VERG)

Given the fact that most of the volunteers were still of a socially productive age, yet were still unemployed or only earning a living from casual work, human capital was

clearly important to maintain. Many also used the organisation as a way to secure more regular roles related to disaster response activities.

Roles and Contributions in Disasters

It is important to understand that during a state of emergency in Indonesia, it is within the local government's jurisdiction to decide whether or not a disaster is large enough to cause disruption within a community. Based on the information they receive, the local government will assess the need to deploy a team from the BPBD to be in charge of disaster response and/or to distribute aid.

“When a disaster strikes, local government at the regional or city level will assess, and, when necessary, declare an emergency. So, the emergency status is up to the local government to decide. In a case where an emergency is declared for a certain period of time, usually the local government will appoint the local BPBD as the scene commander and coordinate responses at the location.”

— Provincial BPBD officer

In the disaster management process, functions of the formal agency (the BNPB/BPBD) included coordinating and controlling other sectors or parties who wanted to be involved in the response management process. In the emergency response constitution (UU 27/2008), the Government acted as the commander and involves other parties, including VERGs, by channelling delegates to support disaster response services. These delegations were expected to contribute to the management of disasters by providing, sharing or collectively using available resources from each party. However, this process did not always work adequately. According to the BPBD, sometimes it was difficult for VERGs to meet the criteria

for a response. A lack of data on the specialities or capabilities of volunteers restrained the BPBD from involving VERG volunteers. The BPBD officer participating in this study admitted a need to put all the details of volunteers in one database, a work still in progress.

“We are currently working with several institutions and private sectors to record all volunteers’ details in one database system so that we can see who is available for responses around the area [of disaster].”

— Provincial BPBD official

The interviewee indicated that once complete, the database will be used to contact volunteers based on their capabilities and the proximity of their location to the disaster scene. It is expected that the provincial BPBD will generate a Web-based application to pinpoint volunteers’ addresses on a map. The database will also be used to select the most appropriate volunteers to be involved in many disaster management training activities hosted by the BPBD.

Response activities. Upon being asked what they knew about disaster management, most participants admitted that they did not really understand other phases of management, other than response. Thus, they focused on response activities only, with less or no attention paid to risk reduction as a way to mitigate disasters.

“We mainly focus our responsibilities on disaster response, especially the need for SAR.”

— P8, Male volunteer (community-based VERG)

“Disaster management? I think it is only applied when a disaster happens.”

— P6, Male volunteer (community-based VERG)

“In disasters, we are still focusing our programme on disaster response. For example, how to reach the outer island that is impacted by a disaster.”

— P6, Male volunteer (faith-based VERG)

From the findings, it seemed there were at least four main tasks delivered by VERGs at the time of this study. First were general tasks, such as lifting materials or cleaning up roads to open up access. Second were SAR and evacuation activities. In fact, results indicated that SAR was a primary task delivered by most VERGs. It was common for participants in this study to believe that every volunteer needed basic SAR capabilities to function in disaster response-related roles. Trainings were usually prepared from inside the organisation and were provided by certified SAR personnel sourced from Badan SAR Nasional/National SAR Agency (*Basarnas*), or from the Army. Many VERGs used SAR taglines coupled with their organisation’s name but still took on other responsibilities such as logistical ones, e.g. distribution of supplies or arrangement of spontaneous fundraising. The third most common role performed by the VERGs was related to medical treatment and health services. Fourth was logistics, which included the distribution of donations and instalment of public kitchens for victims and volunteers.

Tasks and flexibility. Volunteers usually obtained information about a disaster within a couple of hours from their fellow volunteers, who happened to be

working or living near the disaster location. Other VERGs were contacted by the BPBD. Some may have heard from official news channels. In responding to a disaster, VERGs initially conducted general tasks such as evacuating or picking up debris. Most volunteers generally took whatever task was assigned to them by their scene commander or by the BPBD official in charge. During the response phase, volunteer's responsibilities were often flexible according to the range of immediately needed tasks. This switching of roles required volunteers to have multiple skills. For example, a VERG comprised of medics and paramedics working at the 2010 Mentawai Island tsunami were initially doing general tasks, such as evacuating or picking up materials from the wreckage to look for victims, because they were the first team to reach the severely damaged area. Figure 8 shows one of the tasks the VERG performed during the Mentawai Island tsunami.



Figure 8. A responding VERG comprised of medical professionals, also first responders, who in this photo are providing medical treatment on Mentawai Island after the 2010 tsunami. Author's own (2011)

Although they always reported their arrival at the scene to BPBD as the official body for disaster management, VERG participants reported that they usually worked within an area they had chosen themselves, and carried out their own activities based on their available resources at the time.

“BPBD is the central command in every disaster. Normally we come to the disaster location and we carry on with our tasks in our own area. They have their own area, we have ours.”

— P8, Male volunteer (community-based VERG)

It seemed from interviewees’ responses that VERGs usually picked an area based on how damaged it was, or if there were not many VERGs in the same location. Upon arriving, they would initiate their own assessment to appraise the likely losses and would map the area according to its level of damage. This information was used as an indication to concentrate response actions or to channel donations.

Challenges and Opportunities

Capacity to adapt. The VERG participants in the current study reported that they faced challenges in delivering their disaster response services. One of the crucial challenges faced by VERGs, especially community-based organisations, was limited resources. Many times in disasters, these VERGs, who usually had limited funding, had to rely on the official agencies or big humanitarian NGOs for heavy tools and equipment. Many times, VERGs’ response activities were delayed because they had no proper equipment to clear accessways despite their early arrival. Although most participants reported that they acknowledged the BPBD to be in command at the scene, sometimes BPBD staff were late arriving, or were even absent. Without the presence of the BPBD, VERGs were challenged by limited

equipment and budgets. As a result, some participants reported that they found comfort in carrying on disaster responses without the BPBD, as they were able to help directly without waiting for instructions.

“Up to this day, there is still no clear coordinating body to organise disaster responses in remote areas. It is more of a communication between volunteers. So now, whenever a disaster takes place, it is the volunteer groups who inform the BPBD that they will come. The BPBD only receives their report, and each group carries out their own activities in the field.”

— P10, Female volunteer (community VERG)

Furthermore, coordination among VERGs during disasters was not always satisfactory. Some VERG interviewees felt that they were not fully included in the general response process, despite capabilities that they claimed to have. Some volunteers said that official agencies only involved VERGs known to them, and therefore, the unknown VERGs decided to establish their own areas to work. The VERGs with better equipment usually achieved more benefits in terms of time and wider areas of response. However, such inequality sometimes attracted competition between VERGs during responses.

“To be honest, every group wants to be in the limelight, including ours. We want others to look at the existence of our group. In that [mentions a disaster event] disaster, every group received different treatment from the BPBD. As a result, we decided to organise everything by ourselves.”

— P8, Male volunteer (community-based VERG)

“Volunteers talk. They would talk about other groups who looked inexperienced, not really contributing to the response activities, not really committing to help people in need, showing lack of empathy — or those who came and only bossed others around because they had the equipment.”

— P7, Male volunteer (humanitarian VERG)

However, VERGs found opportunities for effective involvement in disaster responses by adapting to the challenging conditions. Most VERGs usually adapted by arranging all possible channels to generate solutions to limited resourcing. This meant using whatever resources were available at the time, or building cooperative relationships with important community members.

“In disasters, you might not have enough stretchers for all the victims, or maybe they are broken after too many people have been carried on them. Do you just stop evacuating? No. You need to solve the problem based on the resources you have. You can use long wooden poles, bamboo or hard roots.”

— P4, Male volunteer (humanitarian VERG)

“We always arrive before them [the BPBD or any in-charge agency]. So we have already achieved evacuation and first aid responses before they get there and establish their posts. There is a Mosque that we always use as our base for the response. So we have already informed the Mosque leader before we carry out our work. They [the Mosque] usually know about this [form of cooperation] from previous experiences.”

— P6, Male volunteer (community-based VERG)

From interviews, it seemed VERGs also sought ways around the issues related to expenses by exploiting existing social relationships. Sometimes, a decision to respond to a disaster was made because they had members who originally came from around the affected area. These volunteers usually had extended family who could provide temporary accommodation and even cover the cost of meals for the team, as these people usually wanted to contribute because of faith-related reasons.

Contributions to local and small-scale disasters. Results indicated that most VERGs, especially those of the faith-based and community-based types, tended to contribute during local and small-scale disasters. Two out of ten participants (20%) had experienced national or regional disasters, while others admitted that they have never experienced any large-scale responses. One participant said:

“I don’t know if there are any of us [VERGs in his area] that have ever been involved in a large-scale disaster.”

— P9, Male volunteer (community-based VERG)

Many times, participants indicated VERGs responded to small-scale disasters, such as flash floods or fires, without or with only a brief presence from BPBD officials. Although these disasters were usually small and affected just a few households, such disasters happened frequently. Such small-scale disasters were typical in Indonesia at the time of this study, and were mainly related to the country’s seasonal and geographical situation, in which abundant rain falls during the monsoon season and high heat causes disasters such as fires during the dry season (Djalante & Thomalla, 2012). Participants felt that greater impacts were

experienced by victims of small disasters, as the high vulnerability of poor people to poor sewage systems or faulty electrical infrastructure made them less capable of taking care of themselves. Thus, as large disasters only happened infrequently, VERGs' contributions were seen to be more evident and crucial in the small, "routine" disasters.

"My organisation called me and instructed me to go to the disaster location. It was also because I live around the area, so it was easy for me to get there. Flash floods happen almost every year when the rain is heavy, so they keep contacting me in regards to every disaster in that area."

— P4, Male volunteer (faith-based VERG)

Participants reported that the importance of VERGs during small-scale disasters was mainly related to their speed of response. As they lived around the area and had local knowledge of their surroundings, it was more likely that information about the disaster could be distributed by them in a shorter time. It was also important in their eyes to reflect on the fact that they knew the place well and knew how to distribute supplies when the disaster location was not easy to access. In describing the supply of logistics support to an area with limited access during the Morowali landslide in 2010, one participant said:

"Our responsibility was to deliver logistics aid from Sorowako Airport [in Luwu Timur] to Morowali [the disaster location] by land, according to the information we received from volunteers in the disaster location."

— P9, Male volunteer (community-based VERG)

The fact that they spoke the local dialect and understood local cultural practices was felt by participants in this study to be another good opportunity for VERGs to promote their active involvement in small, local disasters. As most VERGs were locally based and self-funded, volunteers' participation in large-scale disasters was only visible when the disaster location was close enough to their base. Volunteers sometimes got involved as individuals paying their own way and joined other VERGs in responding to large-scale disasters, or those who had advanced certifications received a letter of duty from higher levels of management asking for their attendance.

Volunteer competency and credentialing deficiencies. Following big disasters, volunteers and groups with good will have always wanted to help. Findings indicated similar trends, in which volunteers' motivation to provide response service increased during large-scale disasters.

“I wanted to help, and I wanted to see a large-scale disaster [Merapi Volcanic eruption 2006]. I used my own money to go there. I spent around 5 million rupiahs then. I think it was also because of our youth, our spirited nature. You know how young people always want to be active and visit places.

— P7, Male volunteer (humanitarian VERG)

Usually, young volunteers were more motivated to be deployed to large-scale disasters. However, many of these young, convergent volunteers had only recently joined their VERGs, making them relatively untrained and unprepared. These inexperienced volunteers often came from VERGs with only internal disaster management training provided by fellow volunteers, who in turn, had had no

updated training. Some participants revealed that they provided response training for their younger recruits despite not having updated their own training for the past 10 years. Upon arrival, these young, untrained volunteers expected officials to assign them with whatever tasks were available, such as moving equipment or removing debris. But they went unnoticed, because there were too many other responders with experience at the scene. Furthermore, they usually came unprepared to meet safety standards or without personal protective equipment (PPE), and it was not common for them to provide credentials to the official responders. Many VERGs reported having a difficult time integrating and coordinating their efforts with officials because, according to them, they were unknown to the agency in formal command. In contrast, response conditions benefitted those VERGs whom disaster management officials were familiar with.

“We’ve never had any difficulty in carrying out our duties on the field so far, and we don’t have to introduce ourselves because they [BPBD] already know who we are.”

— P9, Male volunteer (community-based VERG)

“I never experienced such conflict [with BPBD], and I hope there won’t be any in the future. After all, most of the other organisations already know our organisation.”

— P2, Female volunteer (humanitarian VERG)

According to Wachtendorf and Kendra (2004), inexperienced responders may be unfamiliar to the current response system and may confront rapidly changing conditions. The BPBD is usually unaware of volunteers’ levels of qualification, as many times, VERGs are isolated. Although it emerged from this study that VERGs

occasionally made a brief report to the BPBD when they arrived, members of responding VERGs usually did not provide any credentials to the BPBD. During disasters, formal disaster management officials rarely delegated anyone to be the gatekeeper who performs a credentialing process, or to keep a record of people coming in or out of the disaster area.

Chapter Conclusion

At the time of this study, VERGs in Indonesia showed great capacity during disasters by providing a wide range of response capabilities. Their roles and contributions were related to the response phase of disaster management. Most VERG formations, organisational characteristics and activities were designed to have a disaster response focus. Participants reported that funding was usually self-generated and spontaneous for each disaster.

The formation of VERGs partially rested on the perception that Indonesia is prone to potential hazards and that management of disasters should require additional support from the community. Thus, people who had experienced or responded to previous disasters tended to channel human resources who shared the same interests in disaster response.

The motives of volunteers to join VERGs were various, but were mainly built upon social capital, altruism, faith-related reasons and human capital. Since all participating volunteers were Muslims, their motives were strongly linked to their Islamic beliefs; they believed that by helping to ease the burdens of disaster victims, they would be granted with merit from God.

Services VERGs performed were focused on response activities, especially SAR. In the initial phase of a response activity, volunteers usually performed

flexible, general duties according to immediate needs, regardless of their specific capabilities. Many times, VERGs were burdened by limited resources. However, participants reported that VERGs were usually able to adapt by utilising available resources and by cooperating with locals.

Although all study participants claimed to have specific capabilities in rescue or first aid, credentials were generally self-gathered and self-reported via different certification programmes. Thus, response competencies and concerns over safety on the field were real issues.

There was a strong confirmation of VERGs' contributions to small and local disasters. Albeit different in their makeup, it seemed from interview notes that all VERGs played an important role in dealing with the aftermath of disasters precisely because they were local, and because their members understood social hierarchies that prevailed within local communities.

Chapter Five: Discussion

Background

The influence of volunteer groups responding to disasters has been widely emphasised in disaster literature (Alexander, 2010; Barsky et al., 2007; Voorhees, 2008; Whittaker et al., 2015). Yet, very little research has focused on volunteer groups in Indonesia. This study therefore aims to contribute to the richness of the literature by focusing on VERGs' involvement in Indonesia's disaster management.

This chapter addresses the objectives of the study by comparing the findings in Chapter Four with existing literature. Characteristics of VERGs are reviewed first. Second, findings related to VERG formation and personal motives for joining are discussed. A brief discourse on VERG organisational typology is also presented. Third, VERG roles and contributions in disaster management processes are critically examined. This section also includes an argument as to what extent VERG collaboration with formal agencies can add value to the disaster management process. The significant challenges to and opportunities for VERG participation are then discussed. Last, the limitations of the study and recommendations for future studies are mooted.

Group Characteristics

Gathering formal knowledge about the characteristics of VERGs responding to disasters is important because it can provide the groundwork for further exploration of their roles and contributions. This study has uncovered several notable findings. First, VERGs do not develop new structures during an emergency, and still carry out tasks according to resting state organisational structure.

According to DRC typology (see Drabek & McEntire, 2003; Quarantelli, 1994),

Indonesian VERGs fall between the established type and the extending type of organisation. The current work considers that a VERG is a unique variety of organisation, however, because they are similar to other established organisations such as the police and fire departments and have similar pre-existing structures. Unlike the police and fire departments, VERGs have limited functions outside disasters, however. Thus, it is important to note that the DRC typology does not exactly fit VERGs as they exist in Indonesia.

Second, current findings imply that VERGs in Indonesia are comprised mainly of male volunteers. Formal studies show different gender compositions in other places, depending on diverse study contexts (country, societal values, culture, etc.). According to Lee and Brudney (2012), women are more likely to be volunteers. A similar conclusion was drawn by Kitchen, Michaelson, Wood, and John (2006), whose survey represented a large sample in the UK. These scholars showed that the UK volunteer workforce was generally dominated by women (Kitchen et al., 2006). However, a quantitative study by Shi et al. (2018) found that men were more likely to be involved in the specific activity of emergency volunteering. The present study uncovered a similar trend in Indonesia.

Although reconfirmation from a study with a larger sample of participants is needed, female volunteers interviewed in the current study felt that gender mainstreaming in Indonesia is associated with the domination of males over females in Indonesian VERGs. In Indonesia today, men are more likely to be involved in disaster volunteering because they have more opportunities to spend free time outside their homes. Thus, being involved in voluntary groups is almost a leisure activity for Indonesian males.

Group Formation and Individual Motives

Factors that stimulate VERG formation. Several motives prompt VERG formation. First, the establishment of a VERG can be stimulated by volunteers' knowledge about potential disaster risks in their local communities. By having knowledge about hazards they face locally, VERGs initiators interviewed were inspired by a perception of risk, which contributed to ideas on what could be done to prepare for disasters. This result mirrored James (2008) opinion that such risk perception has prompted many people to provide external assistance, such as channelling people to respond to disasters or initiating preparedness efforts to mitigate potentially damaging threats. Indeed, Indonesia is beset by a wide range of disaster hazards (Andreastuti et al., 2017; Djalante & Thomalla, 2012; Siagian et al., 2013).

According to study respondents, the second motive that encourages VERG formation is related to the volunteers' claims that disaster management in Indonesia is exposed to multifaceted challenges, and that the Government cannot respond to these challenges alone. Participants in the present study saw forming VERGs as a way to help a burdened formal disaster management system. In agreement with current findings, James (2008) stated that the most common critique of formal agencies has been that the system does not have the full ability to manage disasters. A similar phenomenon was described by Fulmer et al. (2007, p. 74) during Hurricanes Katrina and Rita, as these disasters prompted people to consider "the limits of immediate governmental response and the critical nature of volunteerism in acting quickly until systems are organized, mobilized, and operationalized" (p. 74). Growing critique has provided some individuals with the motivation to seek

meaningful roles and responsibilities in disaster and to take the initiative to create a functional workforce (Fulmer et al., 2007).

The current study also shows the clear influence of religion on faith-based and secular VERGs. The intention to establish a faith-based VERG appears to stem from the belief that disaster is God's order. This result is comparable to the work of Adisaputri and Le De (2018), who found that, during the 2009 Padang earthquake in Indonesia, religious beliefs were strongly associated with perceptions of risk and helping behaviours. Consequently, faith-based VERGs supported by volunteers with such religious beliefs played key roles in disaster response and recovery (Adisaputri & Le De, 2018). Certainly, preventing harm to people of the same religious belief seems to be a key stimulus to establishing VERGs in Indonesia. This result agrees on another seminal report: similar motivations and unifying beliefs guided both Islamic and Jewish affiliated voluntary groups participating in the Ferris (2005) study. Ferris (2005) argued that these groups were established to serve members of like-minded religious communities, regardless of religious affiliation.

Volunteer motives. According to the results of the current study, volunteer participation is significantly associated with the motivation to provide service, an idea supported by a wide range of studies that depict the motivation–participation relationship (Drabek & McEntire, 2003; Musick & Wilson, 2003; Shi et al., 2018). It also appears that social networking and altruism are the dominant motives. Most participants revealed that they were greatly influenced by either their existing social networks, such as friends and family, or the sense of belonging to a specific place. Such findings parallel what the literature has suggested (Haraoka et al., 2012; Shi et al., 2018; Whittaker et al., 2015). In fact, altruism and social capital have been

described in Haraoka et al. (2012) as the prominent drivers for volunteerism during earthquake disasters in Japan.

A recent study by McLennan, Whittaker, and Handmer (2016) conducted in Australia concluded that a newer volunteering style has evolved: more volunteers are showing a greater interest in shorter-term volunteering. The authors argued that the rapidly shifting nature of volunteerism is affected by factors such as technological developments, lifestyle expectations and domestic migrations (McLennan et al., 2016). However, this is not the case for volunteers in Indonesia. Instead, Indonesian volunteers participate in the same VERG for a relatively long time and tend to retain the affiliation long term. Thus, volunteers in Indonesia may not yet have adopted the shorter-term view.

The long-term outlook may be preserved in Indonesia because few options for volunteers to network or to respond as individuals exist. Most volunteer respondents do not have enough resources or specific skills to respond to disasters as individuals, and by joining an organisation, they feel they can help in times of disaster. Also, Indonesian volunteers use and maintain the volunteer network within their VERG for personal financial benefits. Only a small proportion of the volunteers are in full-time paid employment, and therefore, many volunteers maintain VERG membership to preserve opportunities for jobs by networking with “successful” volunteers.

The current work suggests that VERGs in Indonesia can be more civically engaged with the communities they help, because the groups are considered part of the same social structure. Thus, individuals interviewed were motivated to volunteer because they had formed close relationships with communities affected by disasters. Several studies suggest similar situations elsewhere, in which participation in

disasters is not merely based on individual preference; community factors are also crucial in determining a volunteer's level of contribution (Guldåker et al., 2015; Haddad, 2004).

The results of the current study indicated religious belief were one of the strongest individual motives for disaster volunteering. Although findings distinguished faith-based VERGs from VERGs of other types, participants in secular VERGs confirmed faith-related motives were behind their actions in providing response support during disasters. According to Moore, Warta, and Erichsen (2014) who studied volunteer college students in US Midwestern University, religious and altruistic causes have been used to promote volunteering and to recruit new volunteers extensively.

However, debate in the literature regarding to what extent religion acts as the primary element of motivation exists. Other studies have found no significant relationship between religiosity and volunteerism, and religious engagement was only visible in religiously affiliated organisations (Clerkin, Paynter, & Taylor, 2009; Moore et al., 2014). In contrast, in a quantitative report written by Kitchen et al. (2006), it was found that people who practised a religion were more likely to volunteer. It may be that religion does increase the level of volunteer participation (Gallant, Smale, & Arai, 2010). Findings from the current work show that religious faith increased the motivation to help, and also boosted the confidence of participants to overcome challenges during disasters. For example, some participants mentioned their confidence in God's help when they struggled to obtain funding for their activities. Thus, it appears that religion is closely associated with volunteers' participation in Indonesian VERGs. Religion, therefore, is an important

stimulus to join and a reason to maintain services, even in VERGs without an affiliation with any religious entity.

Group Roles and Contributions During and After Disasters

Roles in Indonesia's disaster management. Most VERGs in Indonesia focus their activities on responses, and it is not common for the groups to extend their efforts to the recovery phase. Typical response activities carried out by VERGs include SAR, first aid, cleaning of debris or removing wreckage. These findings are in line with those of other studies (Barsky et al., 2007; Tierney, 2001; Whittaker et al., 2015).

The current work suggests VERGs also habitually extend responsibilities to performing logistics roles (Koliba, Zia, & Mills, 2011; Mei et al., 2013). For example, one community-based VERG participating in the present study focused their initial efforts on SAR during the 2006 Sinjai landslide in Indonesia, and at another disaster, the Morowali landslide in 2009, they provided logistical support.

Despite the common VERG focus on providing response services, tasks during a disaster response can change rapidly. This conclusion aligns with the improvisations and changes of roles in crisis situations noted by Webb (2004), and Webb and Chevreau (2006). Role improvisation is especially beneficial in remote disasters (see Chapter Four), where a full-fledged official response is delayed. Similar to Webb (2004) results, results from the current work suggest that Indonesian VERGs can also become engaged in activities that go beyond their normal scope in a situation where the authorised body is absent, especially in a scenario where heavy equipment is deficient. Although this topic needs more exploration, such capacity to be adaptive and flexible may be driven by the

immediacy of a situation and/or a lack of the command and control approach widely used by government agencies to manage disasters (Alexander, 2010).

In terms of VERG involvement in the formally organised disaster management system, this study acknowledges the dilemma faced by VERGs in collaborating with the Government. It appears that VERGs choose to work independently during the response stage because they are often overlooked by official agencies. Although mutual exchanges of emergent support functions between VERGs and government agencies are visible (e.g., sharing the use of the Government's heavy equipment), VERG activities usually follow commands from within their own organisations, and VERGs are not really connected to the formal response system. Many times, they choose to deliver certain services without coordinating with the disaster management agency at all. Many scholars focusing on disaster management have observed such conditions, in which governmental response systems have failed to include volunteer groups via effective coordination, thus leaving volunteers to choose their own response activities (Mei et al., 2013; Twigg & Mosel, 2017; Webb & Chevreau, 2006). Lowe and Fothergill (2003) have also described a similar behaviour in individuals who channelled their motivation to help during the 9/11 disaster in the US by working outside the formal disaster management system. Correspondingly, organised and emergent citizens groups worked independently to provide a response after 9/11 (Voorhees, 2008).

In reviewing Indonesia's policy documents, it appears that policies are inconsistently practised. Community roles in disasters are enshrined in the UU 24/2007 and are further supported in the *Peraturan Pemerintah Nomor 21, Tahun 2008* (Government Regulation Number 21, Year 2008, or PP 21/2008), a part of Indonesia's formal disaster management guidelines. These documents clearly state

that the Government shall provide support for the mobilisation of human resources and will recognise international aid agencies and foreign NGOs. However, there is no extending document that specifically endorses local disaster response groups and how to involve them in a response. Thus, these documents do not provide specific acknowledgement of emergent volunteer groups such as VERGs. The present research confirms that there is a gap between policy and reality in Indonesia, especially in regards to the involvement of VERGs. Therefore, considering the evidence of active roles played by VERGs, this study suggests that channelling and improving VERG involvement would strengthen disaster management processes at both the local and national levels.

Roles in local and small-scale disasters. This study highlights VERGs' significant contributions in small, local-scale disasters. Based on the evidence, most volunteers are relatively well experienced in responding to small-scale disasters in their immediate surrounds. Government agencies may sometimes be absent at smaller disaster events. The immediate Government response may be hindered by official agencies' constrained ability to cover all areas and by their limited resources, particularly in small-scale disasters not made known to them. Thus, the absence of Government in supporting small-scale disasters has provided an opportunity for community-based VERGs to deliver their services. This finding mirrors a study by Wisner and Gaillard (2009), which highlighted an absence of support from the Government for local disasters that affected a small number of victims. Thus, it is critical that VERGs play a leading role in responding to local and small-scale disasters in Indonesia, where other help may be absent.

It is difficult to access formal reports about VERG roles in Indonesia, because very few studies focus on voluntary local groups responding to small-scale disasters. Disaster scholars are generally more interested in large-scale disasters, since this type of event can immediately draw the attention of the public (Wisner & Gaillard, 2009). The closest connection to VERG activities might be gained through studies that centre their attention on general community participation in disaster. For example, the VERG role in providing a timely response can be compared to Andrew, Jung, and Li (2015) findings on emergent groups providing localised responses in the US. Thus, current findings correspond with the suggestion that the active involvement of local citizens in disasters stems from their intimate knowledge of local conditions and people (Andrew et al., 2015).

Furthermore, it seems that local VERGs provide faster support services by making use of local knowledge. Findings are in accordance with those of Coles and Buckle (2004), who stated that local groups can act as a substitute for the absence of governmental emergency support because these groups are frequently able to provide early responses such as SAR, first aid and evacuation.

The present study has shown that Indonesian VERGs are able to generate support from limited resources and can be very creative in terms of utilising local connections. For example, to lower their expenditures on accommodation, one VERG participating in the present study used their family connections to provide accommodation for the team during the response activity. Later, the same VERG recruited the same people to assist them to organise logistics because these people were more familiar with their area, and were thus invaluable sources of local knowledge.

In addition, it is clear that in Indonesia, VERGs often establish a mutual understanding with important local entities once a disaster takes place. Such findings align with a study by Holguin-Veras, Jaller, and Wachtendorf (2012), in which the authors observed better performances from local response groups, or groups that combined foreign and local people in organising logistical support in remote communities affected by the 2010 Haiti earthquake.

Role Challenges and Opportunities

Collaboration with other agencies. Complex challenges are faced by VERGs in Indonesia, especially in light of their dependency on government agency resources such as heavy equipment and official information. Conflicts of interest hamper Government–VERG collaboration. For example, government officials often show a preference for certain VERGs familiar to them. This may mean other, less familiar VERGs are excluded, and may mean discrimination occurs between VERGs. Indeed, collaboration remains as fundamental challenge despite the necessity of interdependence and partnership between the Government and their informal helpers (Weber, Lovrich, & Gaffney, 2005). In fact, such partnership is indispensable for effective disaster management.

Another challenge to effectively integrating VERGs in the disaster management system is the volunteers' lack of awareness of professional credentialing. Current findings indicate that many VERG volunteers do not have a complete understanding of disaster management, let alone the formal credentialing system. Many volunteers retain outdated training certificates and feel no need to upgrade or improve their response skills by engaging in further formal training. Volunteer's self-beliefs regarding their own abilities have been described in the work

of Majchrzak et al. (2007) as a way to create trust within the group or to validate one's own ability. Since responding to a disaster is seen as a form of risk-taking, individuals in the response group "increase the willingness to trust other's knowledge even without validated proof" (Majchrzak et al., 2007, p. 154). Indeed, during the Merapi eruption in 2010, Gultom (2016) found that affected people tended to trust without verifying skills credentials. Hence, volunteers remained confident despite the potential harm they may have posed to the communities they intended to help, or to their fellow volunteers (Gultom, 2016).

In Indonesia, volunteers sometimes arrive at the disaster area without a proper strategy and end up crowding the scene. Individual volunteers often join the VERG post at a disaster location spontaneously. Many informal groups respond to disasters independently, too impatient to wait for results or instructions from the authorities (Twigg & Mosel, 2017). Such scenarios can be detrimental to the official disaster management effort. For example, during two volcanic eruptions in Indonesia, independent actions caused public confusion as the information provided was coming from unclear sources, which led to bias and uncertainty (Andreastuti et al. (2017). While noting the importance of community groups, Helsloot and Ruitenber (2004) also felt that official emergency managers were sometimes hindered by the presence of emergent volunteers, who created problems with communication and coordination. Indeed, the present study suggests a need for more coordination of volunteers by formal disaster management agencies. Coordination efforts could be reinforced by agencies during disaster responses, or introduced as part of a preparedness initiative.

Community relationship opportunities. The mutually beneficial relationships between VERGs and affected communities are strongly evident, especially in the aftermath of disasters. Findings from the current study also indicate close connections between VERGs and affected communities during local disasters. Affected communities often rely on VERGs to provide support, especially in repeated, local, small-scale disasters. These groups also benefit from cooperating with important community members in order to obtain resources and funding.

Scholars have extensively researched many disasters in Indonesia where mutually beneficial relationships promote a positive feeling from the community (Djalante & Thomalla, 2012; James, 2008; Mardiasmo & Barnes, 2015). The affected community, by connecting with responders, can feel that the risks and effects they have endured are shared or reduced by such cooperation. Mardiasmo and Barnes (2015) supported this idea by describing the Indonesian culture of *gotong-royong* (a community of mutual assistance), which was exemplified by voluntary groups providing support to affected communities. In this cultural framework, VERGs are not only assisting in terms of sharing workloads, but also by sharing the burden. Such opportunities for cooperation are likely to be associated with trust and mutual obligations agreed upon during close encounters between volunteers and affected communities (Twigg & Mosel, 2017).

Study Limitations and Recommendations for Future Studies

Study limitations. It is important to keep several caveats in mind when evaluating the current work. First of all, while there is a wealth of research on emergent groups, studies that focus on voluntary group responding to disaster and with a focus of Indonesia are very limited. The experience from disaster victims who

were in contact with VERGs service is also important. Unfortunately, this study was not able to include disaster victims who were in direct contact with VERGs and who received VERG support. To address this missing component, a future study on VERGs and their services could incorporate evaluations from the disaster-affected parties. Such sharing of knowledge would be beneficial in analysing the comprehensive contribution of VERGs. However, due to the limited timeframe for a 60-point dissertation and limited resources, such evaluation was not possible in the current study.

Second, this study has acknowledged the limited sample size of participants. While participants were chosen purposively, there is a chance that findings are not generalisable due to small sample size. Thus, despite the consistency of findings between different VERGs, which provides confidence in robust results, the small and localised audience for this study might require further consideration of validity and generalisability. Therefore, to grasp more in-depth knowledge on VERGs in Indonesia, further studies that cover all VERGs throughout the archipelago should be introduced. This study could be viewed as a first step, or pilot study. This study also acknowledges the deficiency of shared experiences from government officials as only one public servant was interviewed. The researcher found it difficult to identify officials whose positions were directly related to the management of volunteers. Such a scenario reflects the limited importance accorded to VERGs at the governmental level.

Further recommendations for future studies. This study provides theoretical justification for a basic understanding of VERGs and their roles in and contributions to disaster management in Indonesia. Future research should also

examine the concept of shared responsibility between VERGs and related institutions such as governmental agencies, VERG cooperatives, and communities. Such knowledge would provide insight into collaborative response behaviours. An example of good cooperation between the government, VERGs and the community is by recommending a local policy that intertwines resources of the community and VERGs response activity such as mentioned in Chapter Four (p. 82). Developing strong theoretical frameworks to understand the nature of VERG response services can be valuable to can be used to refine support systems for disaster management. Such groundwork can be laid to investigate feasible policy changes the Government of Indonesia could introduce at a later date.

Dissertation Conclusion

This study focuses on the characteristics of VERGs and the key roles they play in disaster management processes in Indonesia. Very few studies focus on this particular area of disaster volunteerism, especially in the Indonesian context. Thus, this study contributes to a larger body of knowledge by providing in-depth insights into VERG volunteers' behaviours and their actual roles during disasters. Volunteer groups such as VERGs have been working alongside formal disaster management agencies to provide services to those affected by a disaster. Therefore, in order to promote the effective involvement of VERGs within the disaster management system in Indonesia, it is important to improve our understanding regarding the profiles of VERGs.

This study uses volunteers' own experiences as the source of knowledge to understand the impacts of VERGs on the outcomes at disaster locations. This study has found that there are positive outcomes delivered by VERGs, especially in

regards to their close relationships with affected communities and their strong support of otherwise ignored, small-scale disasters. Although their responsibilities can be flexible during a disaster, VERGs continue to provide invaluable SAR services, medical assistance and logistics support. It is clear that VERG can play an important role in organising disaster management when small disasters impact rural areas and are of insignificant magnitude for governmental agencies to deploy response teams. Thus, VERGs can fill meaningful and relevant roles as representatives of formal agencies because they usually have the willingness to assist in local disasters.

This study also highlights how motives to volunteer are significantly related to organisational and individual behaviours in providing services during a disaster. This study echoes previously published studies that named altruism and social connectedness as the key elements driving volunteers' interest in joining VERGs. In Indonesia, volunteers' religious beliefs are a crucial driver for involvement. Moreover, there is a strong correlation between volunteers' religious beliefs and their strong motivation to overcome challenges to delivering a service during disasters.

However, VERG involvement in disaster responses is not without its challenges. Self-deployment and concerns over health and safety and a lack of current skills have posed challenges for official command and control agencies and the VERGs themselves. Therefore, this study would like to emphasise how important for the future it is that Government—VERG collaboration is strengthened. Such work should be integrated with preparedness initiatives. It is likely that creating policy frameworks focused on building VERG capacity can promote meaningful involvement of VERGs within the response planning and recovery

phases. Lastly, by providing abundant resources to VERGs, Indonesia's disaster management agency (BNPB) should be able to channel their strengths towards a renewed, practical risk reduction strategy based on local knowledge. It is also important for the government to consider fulfilling the VERGs need for resources in times of peace, not just resourcing the groups in times of disaster.

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Appendix A: Promotional Pamphlet for Participant Recruitment

DIBUTUHKAN: PESERTA UNTUK PENELITIAN!!!

Apakah anda:



Untuk informasi lebih lanjut mengenai penelitian ini silahkan hubungi:

IHSAN NASIR
 HP: 08138555165
 e-mail: ihsan.nasir@hotmail.com

The research has been reviewed by and received ethics clearance by the Auckland University of Technology Ethics Committee

Note. Pamphlet was written in *Bahasa Indonesia* (the Indonesian language).

Appendix B: Emailed Invitation to Participate

☐
☐
Yang terhormat Bapak/Ibu,
Assalamu Alaikum Wr. Wb/Selamat Siang

☐
Nama saya Ihsan Nasir. Saat ini saya sedang melanjutkan pendidikan pascasarjana saya di Auckland University of Technology (AUT), Selandia Baru. Penelitian ini merupakan salah satu komponen dari studi saya. Dalam kesempatan ini saya berkenan mengundang Bapak/Ibu untuk ikut serta dalam penelitian ini sebagai peserta wawancara mengenai peranan dan kontribusi organisasi tanggap bencana berbasis sukarela di Indonesia. Saya yakin bahwa pengalaman dan posisi anda dalam keikutsertaan atau bekerjasama dengan organisasi tersebut dapat menjadi kontribusi positif terhadap data yang saya perlukan dan dapat menjadi tambahan positif demi peningkatan kinerja organisasi tanggap bencana di Indonesia.

Bersama dengan email ini, saya sertakan lembar informasi dan lembar persetujuan untuk membantu anda memahami proses wawancara nanti.

Terimakasih

☐
Salam hormat,
Ihsan Nasir

Note. Email was written in *Bahasa Indonesia* (the Indonesian language).

Appendix C: Information Sheets for Participants

Information Sheet for VERGs

Participant Information Sheet (VERG Volunteer)

Date Information Sheet Produced:

02 November 2017

Project Title

Investigating the role and contribution of voluntary-based emergency response groups (VBERGs) in disaster management: Indonesia as a case study

An Invitation

Hello Sir/Ma'am,

My name is Ihsan Nasir. I am currently undertaking a Master's degree at Auckland University of Technology (AUT), New Zealand. This research is a part of my qualification for Master's degree. I would like to invite you to take part as an interviewee in my research regarding the role and contribution of voluntary based emergency response group (VBERG) in Indonesia's disaster management. I believe that your experience volunteering with the group and/or your position in your organisation would make a valuable data contribution.

Thank you very much

What is the purpose of this research?

This research aims to provide greater understanding on VBERG's roles in disaster management process. It will take a look at the volunteerism inside the group, the significance of the group, challenges as well as opportunities for VBERG

How was I identified and why am I being invited to participate in this research?

I have chosen you based on your experience in your organisation. Such information is taken from publicly accessible information of your organisation (your organisation's Facebook page). I also have established network and exchange contacts with other volunteers of VBERGs and Local Disaster Management Agency as I have worked in emergency and disaster management sector in this area for 7 years. I want to find out about why and how you volunteer in such group. I also would like to know about your experience working in and/or with the group in order to better understand the roles of VBERG in disaster management process.

How do I agree to participate in this research?

Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

What will happen in this research?

This research will involve collection of information from interviews as well as from policies and documents. The interviews will be used to support the documents.

Where the interview will take place?

The interview will take place at the Local Disaster Management Agency office. I have established previous connection with the office earlier as I have worked in the area for 7 years. I will contact you through email one week before the interview for confirmation and also provide you with details of the place.

How much time do I have to set aside for the interview?

An interview will take 45 – 60 minutes to complete. However, you can stop the interview at any time and you don't have to provide any explanation

What are the discomforts and risks?

I am aware that there is a possibility that you may feel some discomfort in giving critical views on the VBERG and Indonesia's disaster management process

How will these discomforts and risks be alleviated?

If you feel any discomfort in giving critical views on VBERG or any other aspect related to the objectives of the research, you may request the interviewer to stop the recording. You may also refuse to answer a question or stop the interview entirely without having to provide any reason to the researcher. Furthermore, you are entitled to withdraw your interview contribution to this research up to two weeks from the conduct of the interview.

Participant Information Sheet (VERG Volunteer)

What are the benefits?

This research is a component of my dissertation, which will assist me in finishing my Masters qualification. The research itself will benefit the participants to conceptualize their volunteerism with VBERG. This research will also benefit to provide better understanding on the roles of VBERG in Indonesia's disaster management process.

What compensation is available for injury or negligence?

This research has the unlikely event to cause injury, and therefore, compensation shall not be needed

How will my privacy be protected?

I intend to identify you in my research and as such your name and position will be credited in the findings. Only my supervisor, Dr Loic Le De, and I who will have access to the data collected. The transcripts will thus be stored in a secure location. If you prefer not to have your name credited in the research you may choose that option in the Informed Consent form. However, due to the specialized and narrow field of the research, full confidentiality may not be guaranteed.

What are the costs of participating in this research?

There will be no financial cost in participating in this research. The interview would be expected to be finished in one hour.

What opportunity do I have to consider this invitation?

You will be given two weeks upon receipt of the Participant Information Sheet to consider the invitation. I shall do one follow-up one week after the invitation to know if you are interested to participate.

Will I receive feedback on the results of this research?

A summary of the findings of the research can be emailed to the participant if requested for in the informed consent form.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor: Dr. Loic Le De, e-mail: loic.le.de@aut.ac.nz
Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEK, Kate O'Connor, ethics@aut.ac.nz, +64 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Ihsan Nasir, e-mail: ihsan.nasir@hotmail.com

Project Supervisor Contact Details:

Dr. Loic Le De, e-mail: loic.le.de@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on type the date final ethics approval was granted, AUTEK Reference number type the reference number.

Information Sheet for Government Official

Participant Information Sheet (Government Official)

Date Information Sheet Produced:

02 November 2017

Project Title

Investigating the role and contribution of voluntary-based emergency response groups (VBERGs) in disaster management: Indonesia as a case study

An Invitation

Hello Sir/Ma'am,

My name is Ihsan Nasir. I am currently undertaking a Master's degree at Auckland University of Technology (AUT), New Zealand. This research is a part of my qualification for Master's degree. I would like to invite you to take part as an interviewee in my research regarding the role and contribution of voluntary based emergency response group (VBERG) in Indonesia's disaster management. I believe that your experience working with the group and/or your position in your organisation would make a valuable data contribution.

Thank you very much

What is the purpose of this research?

This research aims to provide greater understanding on VBERG's roles in disaster management process. It will take a look at the volunteerism inside the group, the significance of the group, challenges as well as opportunities for VBERG

How was I identified and why am I being invited to participate in this research?

I have chosen you based on your experience in your organisation. Such information is taken from publicly accessible information of your organisation (your organisation's Facebook page). Your experience involved in disaster/emergency response previously can also be a valuable knowledge in order to understand VBERGs role. I want to find out about your perception on VBERG, how significant their work is in disaster management process, and how government positioned VBERG within the disaster management policies and risk reduction framework. I also would like to know about your experience working in and/or with the group in order to better understand the roles of VBERG in disaster management process and improve their involvement in the country's risk

Participant Information Sheet (Government Official)

reduction effort.

How do I agree to participate in this research?

Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

What will happen in this research?

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The interview will take place at the Local Disaster Management Agency office. I have established previous connection with the office earlier as I have worked in the area for 7 years. I will contact you through email one week before the interview for confirmation and also provide you with details of the place.

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What are the discomforts and risks?

I am aware that there is a possibility that you may feel some discomfort in giving critical views on the VBERG and Indonesia's disaster management process

How will these discomforts and risks be alleviated?

If you feel any discomfort in giving critical views on VBERG or any other aspect related to the objectives of the research, you may request the interviewer to stop the recording. You may also refuse to answer a question or stop the interview entirely without having to provide any reason to the researcher. Furthermore,

Appendix D: Participant Consent Form

Consent Form

For use when interviews are involved.

Project title: *Investigating the role and contribution of voluntary-based emergency response groups (VERGs) in disaster management: Indonesia as a case study*

Project Supervisor: *Dr. Loic Le De*

Researcher: *Ihsan Nasir. M.D*

- I have read and understood the information provided about this research project in the Information Sheet dated / /
- I have had an opportunity to ask questions and to have them answered.
- I have read and understood that the researcher will take notes and use audio recording device during the interviews with my permission
Agree Not agree
- I understand that in this study I have an option to agree or disagree to being identified by my name and position, and such decision will not have any effect to me whatsoever.
I want to be identified Agree Not agree
- I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- I agree to take part in this research.
- I wish to receive a summary of the research findings (please tick one): Yes No

Participant's signature:

Participant's name:

Participant's Contact Details (if appropriate):

.....
.....
.....
.....

Date:

Approved by the Auckland University of Technology Ethics Committee on type the date on which the final approval was granted AUTEK Reference number type the AUTEK reference number

Note: The Participant should retain a copy of this form.

Appendix E: List of guiding questions

For Volunteers:

1. How long have you been involved in this group?
2. How did you know about this group?
3. Why did you initiate the establishment of this group? (**for founders**)
4. How do you recruit your volunteers? (**for founders**)
5. How do you fund the activities/equipment in your group?
6. What was your motivation to join this group?
7. Have you been involved in one of the disaster responses under this group? What did you do/what was your responsibility?
8. What do you think the group's responsibilities are during the disaster management process?
9. Do you have any training for you to be able to conduct your responsibility? Who gave the training?
10. What other training that you think you need to have in order to better conduct your responsibility? Who should give that training?
11. What kind of position/responsibility do you desire in the process of disaster management in Indonesia? How do you wish to achieve that?
12. Would you recommend this group to other people? Why?
13. What do you do in your spare time?
14. Do you have any daily job?
15. How much time do you provide for your involvement in this group?

For people who had experience in working with VERG

1. What kind of activity that you did with VERG?
2. What do you think about their work?
3. Were you satisfied with their work? Why?
4. What do you think their responsibility should be in disaster?
5. Would you recommend their work in disaster management process in Indonesia?

For government officials

1. What kind of activity that you did with VERG?
2. What do you think about their work?
3. Were you satisfied with their work? Why?
4. What do you think their position should be in disaster management process?
5. Did you/your organization have any contribution to their work? (Provide training, consolidation, cooperation, etc.)
6. Do you expect VERG to contribute to every disaster management process?