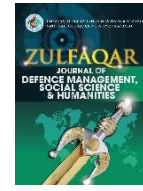




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ANALYSIS ON THE CIVIL MILITARY COORDINATION FOR DISASTER RESPONSE IN KUALA LUMPUR

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ABSTRACT

A successful disaster response requires great coordination between the military and rescue aid agencies to minimize casualties and losses suffered by victims. The collaboration between agencies and the military during a disaster response needs to consider the issues of coordination, communication, and roles responsibilities in order to ensure that disaster response operations are well-structured and prevent duplication of task. In addition, the findings of the study also show that community awareness factors also influence the effectiveness during disaster response activities. Response to disasters requires an understanding of the factors that affect civil-military coordination. In order to accomplish the research objectives, a sample size of ten respondents was selected for the qualitative research method. Interviews were conducted with ten representatives from each agency involved in Disaster response in Kuala Lumpur. However, thematic network analysis and narration and observation were used for data analysis. The study found that each of the identified elements greatly influenced the effectiveness of civilian-military coordination during disaster response operations. This study contributes in equipping the agencies and the military to respond to disasters systematically.

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Introduction

The main responsibility of the military is to engage in war, as well as to prepare, deploy, engage, operate, and disengage swiftly and professionally. Therefore, in any emergency response, their expertise and support could be crucial. A high level of coordination between military and civilian institutions is also required since without it, it is impossible to achieve the necessary objectives while putting in place a successful emergency response. All parties involved in civil assistance, including the military, must work closely together; this coordination requires complex processes and guidelines. Whether in a predictable or unexpected disaster the situation requires a good coordination, communication system, and structured response. To reduce the risk of injury, relief operations should be skillfully executed. In most countries, the military has traditionally participated in humanitarian relief assistance. However, the involvement of the military in disaster management depends on the magnitude and the level of destruction of the disaster. This is because the primary role of the military is to fight wars. Therefore, military expertise and support are essential in any emergency response situation. Civil-military military coordination is also important. In

this situation, comprehensive procedures are required to ensure that the disaster response process is effectively managed. As indicated by Comfort et al. (2004), effective disaster response requires coordination and effort by the civilians and the military since each has its own specific knowledge and expertise. According to the United Nations (UN)-Oslo guidelines (1994), civilian aid agencies are categorically designated as the primary actors in disaster response at the local, state, federal, and international levels, with the military acting as the most effective instrument with respect to resources for relief operations.

The National Security Council (NSC) is Malaysia's main disaster management guideline. The responsibility of National Security Council is for national disaster management coordination, as well as developing and ensuring that all national disaster management policies and mechanisms are followed and executed at all levels of disaster (NSC 2012). As stated in National Security Council (NSC) directive No.20, the military's participation in HADR operations in Malaysia is classified as "military operations other than war (MOOTW) from their conventional role during the war, where their role is to support Malaysian Civil-Military agencies." The implementation of similar operations by military and civilian agencies is referred to the civil-military coordination (De Coning, 2005).

As stated by Urom and Hardoy (2020), the term "urban disaster" refers to a disaster that happens in a city or town. Studies on the disaster in Kuala Lumpur can also be classified as an urban disaster. Furthermore, urban disaster risks are very complex in the context of disaster management. As a result of economic, political, and development decision-making, urban disaster risks may already exist or may occur (Rajib et al., 2009).

Kuala Lumpur is a fast-growing city with a high population density and is also Malaysia's largest city. Natural disasters such as floods and landslides are vulnerable in Kuala Lumpur. The necessity of preparedness in the situation of urban disasters, especially in terms of civil-military- military coordination, is crucial to ensuring that urban disasters are adequately managed and planned. As mentioned by Chan & Ho (2018), coordination and interoperability between military and civilian agencies are important in the context of large cities, which are particularly vulnerable to a wide range of natural and man-made hazards due to high population density and over-dependence on infrastructure to support their essential services, as part of the urban disaster preparedness phase.

One of the prerequisites for disaster management is recognising the factors that influence civil-military coordination during the disaster. Although Malaysia is also involved in the disaster, a survey related to civil-military coordination in urban disasters, especially in Kuala Lumpur is less conducted by the researchers. Although Kuala Lumpur has only experienced major floods previously, in 1971 (Seang, 2009). Preparedness for major disasters such as floods, landslides, earthquakes, and other natural disasters should be taken seriously with effective and well-implemented civil-military coordination. The study examines the civil military to improve the efficacy of coordinating efforts during disaster response.

Literature Review

Disaster Background and Relief Activity

To properly understand the definition of relevant terminology and put the relief effort into perspective, we must first understand their proper application. Several organisations and individuals have assigned the term "disaster" a variety of definitions depending on their organisational goals and scope. The Stafford Act defines a major disaster as any natural disaster (including hurricanes, tornadoes, storms, high water, wind-driven water, tidal waves, tsunamis, earthquakes, volcanic eruptions, landslides, mudslides, snowstorms, or drought) or, regardless of cause, any fire, flood, or explosion that, in the President's opinion, causes damage of sufficient severity and magnitude to qualify for major disaster status in any part of the United States.

According to the UN, "complex emergencies" are defined as "humanitarian crises in a country, region, or society where there is a total or significant breakdown of authority due to internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single and/or ongoing UN country programme" (UN, 2003). Moreover, when defining a disaster, FEMA considers the outcomes of an incident; the nature of the incident itself is not taken into account. Luk N. Van Wassenhove (2006), in contrast, categorised disasters depending on their speed (slow onset versus swift onset) and source (natural versus man-made) (Wassenhove, 2006) With this information, actors can categorise the

occurrence and choose the best course of action. Wassenhove (2006) divided disasters into categories based on their sudden and gradual onsets, as well as their natural versus man-made sources (see Fig. 1).

	Natural	Man-made
Sudden-onset	Earthquake Hurricane Tornadoes	Terrorist Attack Coup d'Etat Chemical leak
Slow-onset	Famine Drought Poverty	Political Crisis Refugee Crisis

Fig. 1: Categorizing Disasters.

Source: Wassenhove (2006).

To classify a disaster into the appropriate quadrant, it is essential to comprehend the disaster's cause(s), which may not be explicitly observable or tracable (Kovacs & Spens, 2009). The natural cause of a flood may be excessive rainfall, but human action is involved when a dam constructed over a geological fault line falls as a result of an earthquake. For relief agencies, this presents a serious logistical challenge. Although man-made disaster causes can be avoided, doing so shifts the emphasis of rescue operations and may ultimately reduce the magnitude and scope of destruction caused by a natural disaster (Kovács & Spens, 2009).

Understanding Civil-Military Relations in Disaster Response Operations

Where both civilian and military personnel collaborate to assist the victims. As the success of the operation depends on the cooperation of these civil and military entities, inter-agency relations are just one of the many challenges that individuals involved in these operations must overcome. As stated by Nugroho, Pandawangi & Suprato (2016), disaster response has evolved into a military mission and is no longer only a civic responsibility. The UN states that deploying the military to manage a disaster is only a last alternative in cases where there is a lack of civil personnel. While as indicated in the OSLO Guidelines the military is an additional tool for disaster management. The immediate needs of disasters would be satisfied by a military presence. In order to build civil-military relations, the concept of civil-military coordination is essential since the military may fill in where civilian capabilities are weak. To fully appreciate this, we must first understand coordination before focusing on civil-military relations.

i. Coordination

Coordination is an important factor when two or more individuals, organizations, or countries join to function as one entity. In this paper, we are focusing on civil-military coordination in humanitarian aid and disaster relief operations. Therefore, we need to understand how coordination is defined by different organizations regardless of the role they play in peacekeeping or humanitarian missions, as any such role ultimately focuses on alleviating suffering.

As one would expect, coordination and collaboration are two words frequently used by humanitarian organizations (Russell, 2005). Collaboration is the joining together for a common understanding of an idea or plan, which makes it a theoretical exchange of ideas or knowledge. Coordination, on the other hand, is an action for the sharing of information and resources by more than one organization for a common goal. As mentioned by Nugroho, Pandawangi & Suprato (2016), to ensure that tasks are completed in the field without difficulty, there must be clear coordination in the management of humanitarian emergencies.

The United Nations Office for the Coordination of Humanitarian Affairs (2008) describes "civil-military coordination in light of a humanitarian perspective as an essential dialogue and interaction between civilian and military actors in humanitarian emergencies which are necessary to protect and promote

humanitarian principles, to avoid competition, minimize inconsistency and when appropriate to pursue common goals.”

According to Bingham & O'Leary (2006), coordination is highly structured, involving standard procedures and mechanisms to carry out the assigned tasks. Therefore, effective coordination necessitates collaboration and cooperation among various parties. As stated by (Moshtari & Gonçalves, 2017), organizations are increasingly operating in collaborative arrangements, despite the fact that there is much to learn about collaboration across organisations.

During disasters, coordination between civilian and military institutions leads to faster responses and a decrease in the number of casualties and damage. Civil-military military coordination can lead to significant improvements in disaster response. As stated by Salmon et al. (2011), coordination between military and civilian agencies has been identified as a critical issue affecting the efficiency of multiagency system responses to large-scale disasters in the past. According to Nugroho, Pandanwangi, and Suprpto (2016), although the civil-military command creates limits on a more desirable reaction, a well-coordinated connection between these organisations will enable the removal of many obstacles. Moreover, due to the increasing complexity and difficulty of dealing with disasters, there is an increasing necessity for military and civilian agencies to coordinate during large-scale disaster responses (Salmon et al., 2011).

According to a study conducted by Nora, Haslinda, and Hidayah (2018) on the relationship between civil and military in disaster response and recovery in Sarawak, there is a cooperation between civil and military during disaster response and recovery. Furthermore, the finding of the study highlighted that both military and civilian agencies have the same goals and objectives, which are to save lives and property during disasters at all levels of disaster response.

As mentioned by Gao (2011), A disaster relief agency that responds on its own will complicate rescue operations. The study approach to response coordination is based on the concept of "inter-agency" to avoid conflict while preserving centralised control during the response. Moreover, a crisis map should be provided to assist response coordination by displaying the need for assistance requests from agencies. Relief organizations can go through the available requests and respond to those whom they can support with. This will avoid conflicts and ensure that no tasks are duplicated between agencies (Gao, 2011). Bollen (2022) indicates that it is crucial to understand how civil and military actors coordinate and work together in various disasters and emergencies because these interactions may be complicated depending on the type of crisis, its scale, or the environment in which it takes place.

ii. Communication

Communication is the process by which one organisation transmits a message to another section of the organisation or another organisation in the network (Kapucu, 2006). According to Haddow & Bullock (2003), communication and coordination are critical concerns for organisations during an emergency. The capability of an organisation to stay effective in a dynamic calamity situation depends on the effective flow of information across organisational boundaries. It is difficult to envision successful crisis and disaster management if responders are not in touch with one another and information is not flowing efficiently.

According to Bui et al. (2000), communication incompatibilities would be an obstacle to receiving information. Different communication languages and equipment can also cause communication issues. Moreover, incompatibility in the organisational structure will affect the quality of information processing when there are communication problems at the agency level. Apart from that, when the military is called in for assistance, their rigorous communication hierarchy may clash with their non-military counterparts with a lower rank structure (Bui et al, 2000).

As mentioned by Kapucu (2006), limited coordination and interorganizational communications hindered effective decision-making in the aftermath of the terrorist attacks on the World Trade Center in New York City. The emergency response was not well integrated by the New York Police Department (NYPD's 911) operators and the New York Fire Department (FDNY) dispatch. This shows that the Port Authority's response was also impeded by a lack of communication. The agency's communication and decision-making are hampered by a lack of communication and integrated systems. Furthermore, if effective communication mechanisms are not developed first, communication problems during the WTC disaster are likely to resurface in any disastrous situation of similar dimensions. It will be critical in the future for responding agencies to be able to share information in a well-coordinated manner (Kapucu, 2006). If effective

communication systems are not developed sooner, communication issues like those that occurred during the terrorist attacks on the World Trade Center in New York City are able to repeat. This incident demonstrates the importance of each response agency sharing information in a well-coordinated manner in the case of a major incident. This clearly indicates that, in order to ensure coordination communication during disasters, Malaysia must take a lesson-based approach in this incident so that communication problems between rescue agencies and the military do not reoccur.

iii. Roles and Responsibility

During a disaster response, each rescue agency plays a specific role. During a disaster, each agency should be aware of its areas of responsibility. Conflicts in defining responsibilities and crossing organisational roles are among the role definition challenges (Drabek & McEntire, 2002). When agencies are unclear of their roles, disaster management will become a mess, and there will eventually be dissatisfaction while on duty.

Issues with agency roles and responsibilities are driven by several factors contribute. As mentioned by Waugh and Streib (2006), the refusal of responsibility due to a severe lack of resources, the lack of a higher body to actuate resources, and the lack of an accountability distribution mechanism are all causes of mismatch between agencies.

Moreover, as stated by Bollen (2022), the main barrier to civil-military interaction resulted from three differences between the two entities, including differences in objectives and principles, competition for responsibilities, and inconsistencies in opinions regarding the necessity of a military approach in situations of emergency and disaster.

iv. Community Awareness

Several instances from previous disasters demonstrate how crucial it is for communities to be disaster aware. Reduced vulnerability of victims can be achieved by raising community awareness of disaster preparedness. Communities should learn how to assist in their own emergency and prepare for disasters (Shannon, 2015). According to a report from Raja Hisyam Raja Zaid that published in awani online in January 2022, several communities in Selangor are collaborating together and taking more thought into their disasters preparedness. In the name of " Muafakat Komuniti " which is made up of local citizens from 21 community areas in different districts, it aims to ensure that any early relief to disaster victims can be given. To be prepared with the involvement of all community levels, local preparation through community consensus is crucial. Additionally, by being prepared, relief agencies' activity will be facilitated easier and the risk of property damage and even fatalities will be reduced.

Moreover, as highlighted by Bali, (2022), In many established and developing countries, community-based disaster risk reduction is a widely utilized and effective strategy. Communities have a greater understanding of their surroundings, are aware of their strengths, and have developed native emergency response techniques. However, the improvement of training and skills to the community is also important as this improvement will lead to disaster preparedness (Bali, 2022). Communities' involvement also leads to a better knowledge of disasters and conventional coping mechanisms, their comprehension of local disasters can be very useful in emergency situations.

v. Civil-Military Coordination in Disaster Response Operations

The civil-military relationship is complex, and it gets more pronounced when these organizations come together during humanitarian operations. The military plays multiple roles in executing its duty, including before, during, and after disasters. Wentz (2006) believes that military and civilian organizations are different from one another on the basis of their functionality and their distinct organizational base. The military, on one hand, has only one commander to whom all personnel report. On the other hand, civil organizations have more autonomous units, such as transport, supply, administrative and public information; this results in coordination problems in the field and invites friction (Wentz, 2006).

Normally after a disaster, no single authority controls the relief effort, so we can say it is a less regulated or unregulated effort (Stephenson, 2005). Balcik (2010) claims that the governments of the affected countries (host countries) shoulder the overall responsibility for relief operations inside their countries, and all participating members or organizations are duty bound to adhere to the laws of the host country (Balcik,

2010, p. 23). Working in harmony is required to ensure better results. If the civil organizations and the military involved in humanitarian aid are working in an uncoordinated way, they will be undermining each other. All stakeholders have to understand and accept each other's differences and move forward by joint planning, communication, and the equal distribution of roles and responsibility to ensure an adequate response to the crisis. Flexibility on both sides is required to understand one another.

Civil-military coordination also plays a critical role in any HADR missions for a number of reasons. It speeds up the response and recovery process by utilizing the most appropriate and efficient assets to achieve the best results. Due to this close interaction between military and humanitarian organizations, many initiatives have been observed to enhance mutual coordination. A step in the same direction is the UN Civil-Military Cooperation Centers, which are aimed at enhancing the coordination effort between the military and civil organizations, including the UN agencies, during joint operations.

By using an example of Japan's disaster management as a developed country. After World War II, Japan created a special system of civil-military cooperation and civilian management of its self-defense forces (JSDF), which Schwenke, (2020) describes as being characterised by bureaucratic rather than political control. As the past has shown, earthquakes and tsunamis will unexpectedly hit Japan, even if it's only for a moment. Because of this, everyone, no matter their age, should be ready in case of an earthquake. Cooperation with local governments and other relevant organisations is crucial for carrying out timely and efficient disaster relief activities, according to Pocher, (2015). In order to increase the efficiency of their operations, it is crucial for the Japanese Self Defense Forces (JSDF) to regularly communicate and coordinate with these entities. Japan's best practice in the aspect of inter-agency coordination in major disaster management is something that can be taken as an example for disaster management in our country, Malaysia.

Methodology

This study was carried out using a qualitative method by combining the information from the literature review and related documents, detailed interviews, and observations as the main procedures in the data collection of the study. As mentioned by Creswell (2012); Bougie & Sekaran (2020). This method provides several advantages such as saving time, facilitating more in-depth and accurate research on a problem in the study, allowing simultaneous data collection for analysis, reporting results of the research, avoiding bias and reliability in evaluating, interpreting, perceiving, and consent of respondents in views or opinions.

In-depth interviews were conducted involving respondents from various agencies involved in the disaster in Kuala Lumpur. The interview activities were carried out by online through Zoom platform, with a total of ten respondents. The respondents who represented the agency came from different management levels, including strategic, operational, and tactical. The Kuala Lumpur city hall (DBKL), the Royal Malaysian Police (PDRM), the Malaysian Ministry of Health (KKM), the Malaysian Volunteer Department (RELA), and representatives from the Malaysian army infantry corps are among the agencies involved. They have been intimately involved in several disasters in their respective localities. These interviews have enabled the researchers to obtain more detailed and clear information related to the agencies coordination activities during disaster response operations.

The authors of this study approached leaders and representatives of different agencies, including the military to gain a better understanding of each organization's point of view on the subject of civil-military coordination in Kuala Lumpur.

In addition, observation methods are also used to determine the effectiveness of coordination based on several elements identified between agencies on disaster preparedness and during disaster response. This method allows for observations of the consequences of events as well as the gathering of relevant data (Chua, 2020; Creswell, 2012).

Results

Overall, the study found that agencies involved in disasters in Kuala Lumpur are always prepared. This situation can be seen from the number of disaster response operations that have been managed. Each agency adheres to established disaster management guidelines and Standing Operating Procedures. The highlighted crucial elements, such as coordination, communication, roles and responsibilities can significantly improve the civil-military military coordination in disaster response operations. Each agency

cooperates in accordance with their respective roles and areas of responsibility as set out in directive no 20, National Security Council.

The study found that the national disaster committee meeting is a platform that could enable each agency involved in disasters to share information, resolve issues, and express their opinions and needs for improvement in coordination management during disasters. Additionally, the committee meetings emphasized the necessity for short, medium, and long-term policies and planning on the parts of the federal and state governments to ensure that the disaster has a minimal impact on the country, according to interviews with the agencies involved in the disaster. The disaster management committee meetings, which are held twice a year, are where the coordination element is addressed.

As stated by Royal Malaysia Police (PDRM), Kuala Lumpur in the interviews, each agency is aware of its respective roles and responsibilities. Moreover, each agency must be clear about their respective roles and responsibilities at the Control Post on Scene (PKTK), and Disaster Operation Controlling Centre (PKOB) established during disaster operations in order to ensure that disaster operations are coordinated orderly, and effective. The chain of command, allocation information, and reports will all be organised at PKTK. According to the respondent at PKTK, roles and responsibilities, reports, and communication information will be discussed and coordinated with the team leaders. For example, the Malaysian Volunteer Department (RELA) at PKTK already knows its role of assisting in control outside the area. The Malaysian Fire and Rescue Department (JBPM) will enter the red zone area for rescue operations.

Respondents also stated that central level coordination between PDRM, and the Malaysian Armed Forces in Kuala Lumpur is effective, with meetings held every three months, indicating good relations between these authorities. The meetings can be a platform for both agencies to voice their opinions for improvement and solve existing issues. These activities can help civil and military authorities prepare for future disasters in a more effective way.

Interagency coordination also does not only occur during the response in the disaster area. Coordination also occurs at the evacuation centre, which requires close collaboration between agencies to ensure a smooth process for assisting the victim. Through interviews with the agencies involved in the Kuala Lumpur flood evacuation centre, it was found that there was good coordination and communication between the agencies. Everything is highly organised, starting with the administration of the opening of evacuation centres, food distribution, and the arrangement of victim tents, inspection of the level of safety standards is also managed by the agencies involved. Additionally, as stated by respondents, the task split has been established in accordance with the allocated roles and duties.

Furthermore, according to the agencies interviewed in terms of communication social media platforms are primarily used as an alternative to the communication of information channeling and information reception. Respondents admitted that using social media such as Whatsapp and Telegram can speed up the process flow of information during disaster response. However, in the event of a major disaster that causes a power outage, using social media as the primary platform poses a difficulty to the agencies. Apart from that, the respondents said the communication issues they experienced were information leakage and the spread of misleading information. Interviewed with Malaysian Army Infantry Corp, who were directly involved during the 2014 floods in Kelantan found problems in managing communication, particularly in terms of different communication channels between agencies, lack of battery support due to electricity supply, interaction with the media, sensational issues highlighted, or fake news stories spread. All these issues will determine whether disaster response operations succeed or fail.

Any plan must have roles and responsibilities allocated to it in order for it to work well. Second, the people and agencies in charge of the roles and responsibilities must be aware of, understand, and trained in their tasks. Based on interviews conducted with respondents in September 2021 found that each agency involved in disaster response operations is highly clear about their respective roles and responsibilities. Respondents mentioned that the role and responsibilities of the agency are also not limited during the disaster, but their involvement was also important both before and after the disaster. For example, The Civil Defense Department, Social Welfare Department, and The Malaysian People Voluntary Alliance (RELA), which is in organising evacuation centres, are all involved during the post of disaster. Furthermore, according to National Security Council Directive No. 20, in order to strengthen disaster management and control the responsibilities of the disaster areas are divided into three categories: red zone, yellow zone, and green zone. Cooperation between major agencies and special units from SMART, JBPM, ATM, Department of Emergency Medicine, and any special teams formed by any agency is required for red zone

management. Therefore, good interaction between civil and militaries is particularly important in the red zone, which covers the area surrounding the actual scene.

However, according to the respondents, one of the most difficult elements of disaster command and control in Kuala Lumpur is determining who or which agency is responsible for certain situations and locations. Even though NSC 20 explicitly states the roles and responsibilities of all involved parties in a disaster. However, this problem may arise in specific circumstances.

In addition, the community was not adequately prepared to evacuate in the early stages of the incident, according to respondents who were interviewed based on the significant flood incident that happened in December 2021. This is due to the fact that flooding has never occurred in the affected area and resulted in the surrounding communities not acting immediately to move. As a result, it is challenging for relief agencies to act immediately to relocate the victims. This shows that the community's awareness at that time was very low and subsequently caused casualties and lost of properties.

These findings indicate that coordination, communication, roles and responsibilities and community awareness are all crucial factors that will determine how well operations are coordinated during a disaster. This important element will help in preparing for future disasters by being able to prevent or minimize the effects of disasters. These findings are in line with the empirical evidence expressed in previous studies by Comfort et al. (2004), Chan & Ho (2018), Salmon et al. (2011), Nora et al. (2018), Bui et al. all, (2000), Kapucu (2006), and Lee, (2019). The evidence explains that coordination, communication, roles and responsibilities are important aspects of disaster response. Based on the aspects mentioned, a proposed conceptual framework has been developed using empirical evidence, interview, and observations to demonstrate the importance of civil-military coordination during disaster response.

These will include independent and dependent variables. These findings indicate that coordination, communication, roles and responsibilities and community awareness are all crucial factors that will determine how well operations are coordinated during a disaster. This important element will help in preparing for future disasters by being able to prevent or minimize the effects of disasters. These findings are in line with the empirical evidence expressed in previous studies by Comfort et al, (2004), Chan & Ho (2018), Salmon et al (2011), Nora et al (2018), Bui et al. all, (2000), Kapucu (2006), and Lee, (2019). The evidence explains that coordination, communication, roles and responsibilities are important aspects for disaster response. Based on the aspects mentioned, a proposed conceptual framework has been developed using empirical evidence, interview, and observations to demonstrate the importance of civil-military coordination during disaster response. These will include independent and dependent variables. However, the results of the interviews obtained before the major floods hit selangor and klang valley in December 2021. According to the observations, there were certain coordination issues during disaster response operations at the time due to the situations were unexpected and unpredictable. The situation was quite chaotic at first but eventually the rescue agency and everyone involved were able to manage the situation well.

Conceptual Framework

The conceptual framework for this study, which was developed using empirical evidence, is shown in Fig. 2. This study found that the primary contributing reasons to the issue of civil-military coordination are elements of coordination, communication, roles and responsibilities and community awareness created in disaster response. During disaster response activities, these variables operate as a driving force to guarantee that every action is carried out in line with predetermined procedures. This framework describes the elements that will influence the effectiveness of disaster response.

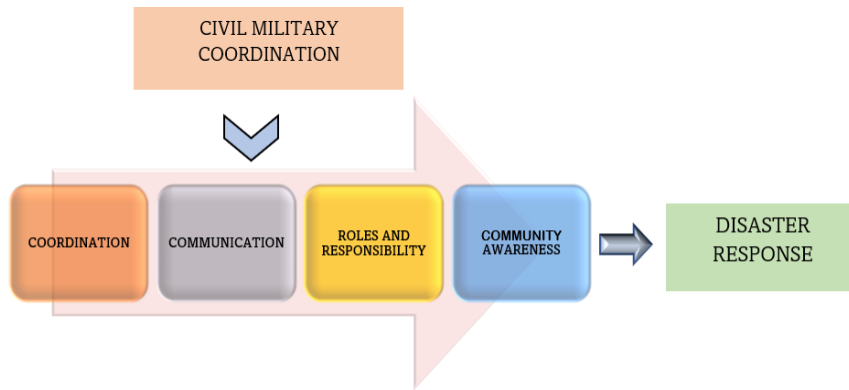


Fig. 2: Conceptual framework of Civil-military coordination during disaster response.

The findings from empirical studies on civil-military coordination can be extracted into the following: by examining the issues of the connection between civil and military that must be addressed. The objective of this research is supported by an evaluation of the factors found as significant determinants in disaster coordination between relief and rescue agencies and the military, which adds to a more in-depth investigation of civil-military coordination in urban disaster response. It has been demonstrated that efficient civil-military coordination enhances the effectiveness of overall disaster response. Overall, the empirical data is very persuasive that civil-military coordination is crucial for successful disaster response. Disasters can be managed as efficiently by enhancing coordination, communication, community awareness, and roles and responsibilities.

Conclusion

A disaster impact only can be recognized clearly after it has happened. We will never be able to predict the exact time, location, or magnitude of a tragedy. Only the time, location, and consequences of a disaster can be predicted using technology and empirical evidence. The knowledge and skills acquired will not be able to prevent disasters, they will be able to reduce the risk by enhancing the victims' resilience. Although there is the involvement of military and other rescue agencies in the disaster response, it is ineffective if the importance of civil-military military coordination is not highlighted. Disaster response necessitates close coordination between the military and civilian sectors.

Therefore, implementation and management at the strategic, operational, and tactical levels are very critical to enhance the ability to deal with any type of disaster more successfully in the future. Coordination is highly structured, having standardised methods and systems to complete the tasks. Coordination is possibly the most difficult term to distinguish from collaboration because teamwork, cooperation, and a partnership all require some level of coordination to progress. As stated by Ansell and Gash (2008), coordination, like cooperation emphasises shared decision-making at all phases of the task, with a strong emphasis on achieving common goals. As mentioned by Amailef and Lu (2011), it is crucial for responding organizations during crisis situations to involve other organizations as the effectiveness of response can be improved if more collaboration.

Moreover, the key factors that affect civil military coordination during disaster response, such as coordination, communication, community awareness, roles and responsibilities, need to be highlighted in order to ensure effective coordination. This will make disaster operations run more smoothly, prevent task duplication, and ultimately reduce the number of casualties and property losses.

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