



The Role of Construction Army in Recovery Phase Disaster Landslide (Study Case of Yonzikon 13/KE Task at Sukamakmur Bogor)

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Abstract

Landslides are one of the geological natural disasters that can cause silting and accumulation, disruption of traffic routes, damage to agricultural land, settlements, bridges, irrigation canals and other physical infrastructure. Law of the Republic of Indonesia Number 34 of 2004 explains that the main task of the TNI is to uphold state sovereignty, maintain the territorial integrity of the Unitary State of the Republic of Indonesia and protect the entire nation and all of Indonesia's bloodshed from threats and disturbances to the integrity of the nation and state. Yonzikon 13/KE is a quick reaction force unit for disaster management under the Army Engineering Center which is tasked with disaster management, especially post-disaster, namely rehabilitation and reconstruction.

Keywords: *The Role of Construction; Recover Phase Disaster; Yonzikon 13/KE; Landslide at Sukamakmur Bogor*

Introduction

Historically, Indonesia is one of the countries in Asia that has a vulnerability to disasters, both in the form of natural disasters and non-natural disasters. Based on data from BNPB, one third of Indonesia's territory has the potential to experience natural disasters including volcanic eruptions, earthquakes, tsunamis, floods and landslides. This condition is a consequence of the geographical, geological, biological and hydrological and demographic conditions that exist in Indonesia². Non-natural disasters also often occur, including in the form of inter-ethnic disputes in several areas which are motivated by issues of ethnicity, religion, race and customs (SARA) and pandemics.

Landslide disaster is one of the geological natural disasters that can cause siltation and accumulation, disruption of traffic routes, damage to agricultural land, settlements, bridges, irrigation canals and other physical infrastructure. The definition of a landslide is the displacement of slope-forming material in the form of rock, embankment material, soil, or mixed material that moves down or off the slope (National Standardization Agency, 2005). Landslides are one of the natural disasters that have resulted in many fatalities and losses in the economic sector (Susanti & Miardini, 2019: 98). Thornbury (in Nasiah & Invanni, 2014: 110) mentions landslides as mass movements of rock debris whose type of motion is sliding or sliding, rotating (rotational) caused by gravitational forces so that the movement is faster and the water content is higher.

According to Arsyad (2016: 35) there are conditions for a landslide to occur, namely the slope is steep enough so that the volume of soil can move or slide down, there is a layer below the soil surface that is somewhat impermeable and soft which functions as a sliding plane, and there is sufficient water in the soil so that the soil layer just above the impermeable layer becomes saturated. The impermeable layer also usually consists of a high layer of clay or layers of clay rocks and marl (clay shale). Gea & Pinem (2017: 43) added that there are six types of landslides, namely rotational, translational, block movement, soil crawling, rockfalls, and debris flows which are known as very deadly types. The types of landslides can be seen in the following figure:

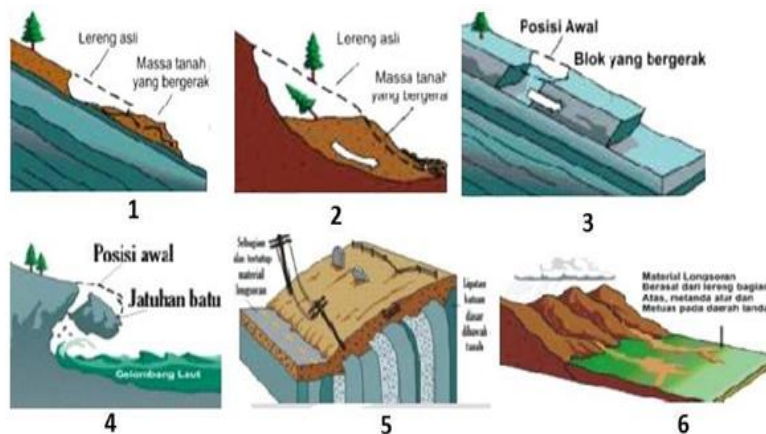


Fig. 2: Landslide type
Source: Gea & Pinem (2017: 43)

Law Number 24 of 2007 concerning Disaster Management contains a change in perspective in disaster management from being responsive to disaster risk management that is integrated into development plans at both the national and regional levels. Disaster management is regulated, organized, and financed from the development budget of the central government/ regions, and regulate the rights and obligations of the people (Syarifah et al., 2020). The concept of disaster management as stipulated in Law Number 24 of 2007 basically includes the stages of implementing disaster management through three phases/stages along with their activities, planning and funding, as well as the role of disaster agencies with the authority to carry out coordination, command and implementation functions (Banjarnahor et al., 2020).

It is understood that disaster management is defined as a series of efforts which include establishing development policies that are at risk of disasters, disaster prevention activities, emergency response and rehabilitation. The Disaster Management Cycle can be seen in the following figure:



Fig. 3: Disaster Management Cycle

Source: Guide to Contingency Planning for Disasters Second Edition (BNPB, 2011)

Theoretical Review

The Role of Construction Army

In all forms of activities that involve units of the Indonesian Army in particular, of course, they must be based on the applicable laws and regulations. Likewise, with the involvement of the TNI AD in disaster management. Republic of Indonesia Law No: 34 of 2004 concerning the TNI according to article 7 paragraph (2). The TNI in carrying out its main tasks is carried out with the pattern of Military Operations for War (OMP) and Military Operations Other Than War (OMSP). In the pattern of Military Operations Other than War (OMSP) in carrying out the task of assisting the TNI, the TNI has two tasks in accordance with Article 7 paragraph (2) number 9, namely Law Number 24 of 2007 concerning disaster management, specifically Article 14 paragraph (2) states that "Members of the steering committee consist of relevant government officials (TNI/Polri) and community members. In accordance with the basis mentioned above, with the title of TNI/TNI AD forces that have the strength, equipment and logistics capabilities can be involved in the implementation of disaster management.

Landslide

Landslides occur usually caused by water-saturated areas and the presence of gravitational forces. This happens because underground there is a layer that is slippery and impermeable (difficult to penetrate) water (Suryolelono, 2010). Bogor District has various types of regional morphology, from the relatively low plains in the north to the highlands in the south, namely around 29.28% are at an altitude of 15-100 meters above sea level (masl), 42.62% are at an altitude of 100-500 masl, 19.53% is at an altitude of 500-1,000 masl, 8.43% is at an altitude of 1,000-2,000 masl and 0.22% is at an altitude of 2,000-2,500 masl. Located at 6°19' to 6°47' South Latitude, and 106°01' to 107°103' East Longitude. The total area of Bogor Regency is a land area of 2,663.81 km² (BPS Kabupaten Bogor, 2018) Bogor district administrative map can be seen from the image below:

cooperation and coordination between Yonzikon 13/KE and other agencies, especially BPBDs, must continue to be improved in dealing with disaster management problems, especially during the recovery phase which includes rehabilitation and reconstruction. So that disaster management in the context of helping disaster victims will run effectively and efficiently. Human resources in the organization is human capital, because human resources contribute to profitability. Human resource management is a broad concept of the philosophies, policies, procedures and practices used to manage individuals or people throughout an organization. Human resource management is one area of management which includes aspects of planning, organizing, implementing and controlling. Because Human resources are considered to have an increasingly important role in achieving organizational goals, so various experiences and research issues in the field of human resources are systematically collected. The term management has a meaning as a collection of knowledge about how to manage human resources. Basically, all managers get things done through other efforts, this requires effective human resources". Human resource management is a strategy and implements management functions namely planning, organizing, directing, and controlling.

Based on the explanation above, the theory of human resource management provides various tools that can be used to identify HR problems, explain HR symptoms, predict things that can or will happen in the HR field and provide solutions to HR problems¹¹. With theory with this HR development, the ability and knowledge of Yonzipur 3/YW soldiers in terms of disaster management can be further enhanced through various developments carried out, both by the Regional Military Command and at the initiative of the Yonzikon 13/KE Battalion Commander through collaboration with the Regional Government and academics in the region to provide various education. Based on Law number 24 of 2007 paragraph 1 article 10 and article 11 concerning disaster management, it is stated that the post-disaster phase includes recovery, rehabilitation and reconstruction activities.

Yonzikon 13/KE capabilities that have not optimal is still limited to Zeni hardware, as well as financial/budgetary support prepared by the upper unit so that not yet fully supported for tasks post area rehabilitation and reconstruction disaster. In addition to these limitations above, there are various other limitations faced by Yonzikon 13/KE between others: first, Mitigation Capability disaster. Second, Management Capability disaster. Readiness of Yonzipur facilities & infrastructure which supports Yonzikon 13/KE tasks in disaster management certainly not regardless of equipment or means and existing infrastructure.

Frequent practice carried out by the Yonzipur 3/YW unit according to the program of the Upper Command, especially in coping Disaster is a strength in itself for units to make it more solid on the implementation of disaster relief in Pusziad, so it will manifest a much better role from the implementation of countermeasures previous disaster. Procurement of material: The additional material for Yonzikon 13/KE in the form of tools special handling equipment disaster is a moment that very good for more solidifying disaster management tasks. There are levels of maintenance of the material as well unit facilities and infrastructure implemented, is one strength to maintain condition the materials and infrastructure always ready for operation. Readiness of Yonzipur facilities & infrastructure supporting the Yonzikon 13/KE task. Based on the Regulation of the Minister of Internal Affairs Affairs Number 27 of 2007 concerning Guidelines for Facilities and Infrastructure Preparation in Disaster Management at Article 1 states that means and disaster management infrastructure is the tool to use make work easier aims and objectives, as well as efforts used to prevent, overcome and dealing with disasters.

Based on the Regulation of the Minister of Internal Affairs Number 27 of 2007 concerning Guidelines for Facilities and Infrastructure Preparation in Disaster Management at Article 1 states that means and disaster management infrastructure is the tool to use make work easier aims and objectives, as well as efforts used to prevent, overcome and dealing with disasters. From the above understanding, confronted on the role of Combat Engineer Battalion, means and infrastructure is very important in

support task execution given to implementing units such as Combat Engineer Battalion, where with very much ability requires facilities and infrastructure support task execution. For support and facilities infrastructure for natural disaster operations. Yonzikon 13/KE unit readiness in the field really depends on readiness of existing facilities and infrastructure. Support for infrastructure and tools special handling equipment disaster. Ideally support means communication is 100% from TOP and in good tool condition. Support means of transportation. Same as well as the means of support communication, support means of transportation as a good means of transportation for personnel and the equipment to be used by unit is 100% of the TOP and in good shape. Realizing the readiness of facilities and infrastructure and special equipment management of internal natural disasters support operational capabilities Yonzikon 13/KE via application to Upper Command, maintenance of equipment available in the unit or by improving coordination with related agencies for support natural disaster management.

To realize the role of Yonzipur3/YW in disaster management to the maximum, then the tool support response equipment/equipment disasters in the form of infrastructure and cooperation with internal civil parties necessary procurement of equipment done. Faced with the subject and object above, then the various efforts and activities that need to be carried out as following: Realizing supported facilities and disaster management infrastructure for Yonzikon 13/KE, through efforts as follows.

Conclusions

The duties and roles of Yonzikon 13/KE have been well executed, although there are still problems in field but can be overcome with collaboration and coordination between related stakeholders under the coordinator Regional BNPB/BPBD. The role of Yonzikon 13/KE can be further developed if possible take advantage of Zeni's functions Yonzikon 13/KE units so you can achieve optimal results. However, this is not supported yet specific regulations about the duties and functions of related agencies as a legal umbrella carry out countermeasures disaster, especially for the Yonzikon 13/KE unit.

In disaster management, Yonzikon 13/KE as an integral part of The Indonesian Army is an institution or organization that is most prepared help the affected community disaster. This has been proven, wherein every disaster occurs somewhere area, Yonzikon 13/KE always appears at the fore front such as units of the Indonesian Army other. Yonzikon 13/KE involvement in disaster management so far is as a form of calling and concern to participate reduce moderate burden on society have a disaster. Because appropriate The law in force, that placement of the TNI's role in natural disaster management is on position assisting other agencies accordingly request. Yonzikon 13/KE has clear organizational structure and equipped by trained personnel as well as adequate infrastructure.

However, not entirely Yonzikon 13/KE personnel have quality knowledge and skills disaster, because Yonzikon 13/KE personnel who are an integral part of TNI AD was trained as a component national defense to face outside enemy invasion. Besides that, in quantity it can be said personnel Yonzikon 13/KE is not fulfilled according ly with TOP/DSPP respectively. This matter of course will make as own problems are faced to sufficient catastrophic events big. Therefore, for more optimizing the implementation of this task, hence the increase in resource capabilities Yonzikon 13/KE personnel resources became a demand that must be met. This matter can be implemented through improvement directed education and training to improve and test capabilities of Yonzikon 13/KE members in disaster management, involving several military personnel in disaster management training as well as through regulatory validity governing legislation about Yonzikon 13/KE engagement as well supporting facilities and infrastructure adequate. The Role of Disaster Viewed from the Side Readiness of Yonzikon Facilities & Infrastructure In addition to the quality and quantity of personnel, the facilities and infrastructure owned by each unit of the Indonesian Army in general have not optimally fulfilled, in particular in support of countermeasures disaster. Likewise, means and infrastructure owned by Yonzikon 13/KE most of them

are quite old. So, it is hoped that there will be coordination and effective cooperation, including in relationship with institutions other government. Therefore, research and is needed re-inventory of facility capabilities and infrastructure owned by Yonzikon 13/KE, support facilities and infrastructure specifically disaster management as well efforts to maintain facilities and special infrastructure on an ongoing basis and the need for standard operating procedures.

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