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Community Social Phenomenon as A Preventive Action and Disaster Mitigation of Longsor Disasters in Simalungun District

Jehan Ridho Izharsyah
Universitas Muhammadiyah Sumatera Utara
Jl. Kapten Mukhtar Basri No. 3 Medan, Indonesia
Email: Jehanridho@umsu.ac.id\

ABSTRACT

Disaster is a natural change both natural disasters or disasters impacting human activities. In these activities humans as actors and recipients of impact. Based on data collected through research conducted in 2016, landslide vulnerability was 34,233.85 Ha or (7.91%). But some of the activities of he disaster did not occur in the area of vulnerability but occurred in the area of the level of vulnerability. The focus of this research is to find out social phenomena that are carried out as a preventive and mitigation measure for landslides. This research uses a qualitative descriptive approach using theory literacy and case study analysis with SWOT strengthening. The results of the study showed that the government of Simalungun Regency was not effectively carried out by the Simalungun Regency government. According to the SWOT analysis of rainfall intensity, soil genesis, steepness of the area affects, weaknesses of legality and synergy factors are also not owned by the government such as local regulations and cooperation with stakeholders, The recommendations of the results of this study are that the government must draw up a regional regulation to strengthen the territorial and spatial structure and provide development participation to the community as a form of development and social phenomena as development stakeholders.

Keywords: Social Phenomena, Preventive Actions and Mitigation

INTRODUCTION

Land degradation is the result of one or more processes where the actual or potential capacity of the land to produce goods and services decreases. The factors that influence soil degradation include, among others, natural factors and human factors. Natural factors include areas with steep slopes, easily damaged soils, erosion, forest fires, and intense rainfall. Meanwhile, human factors include population change, population marginalization, population poverty, land ownership problems, political instability and mismanagement, social and economic conditions, deforestation and inappropriate agricultural development.

Another land degradation threat is erosion. Soil erosion is the cause of the decline in the productivity level of the upstream watershed and the quality of degraded lands. Use of land above its carrying capacity without being balanced with conservation efforts and improving land conditions often leads to land degradation. For example, land in the upstream area with steep slopes which is only suitable for forest, if it is converted into agricultural land for seasonal crops, it will be vulnerable to erosion and / or landslides.

It is estimated that around 2 billion hectares of degraded land worldwide and 75% are in the tropics. Soil degradation can be caused by many processes, including accelerated soil erosion, salination, damage from mining and urban activities, as well as overgrazing and contamination from industrial pollutants. As of the last 2 years (2014-2015), there have been a number of phenomena that have occurred, according to the records of the National BNPB as many as 480 landslides and erosion disasters.

This disaster mostly occurs due to the shape of the area and the texture of the land which is hilly and sloping and there are also several areas that occur due to changes in land suitability

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and land capacity caused by illegal human behavior and activities that are outside the rules and context according to the RTRW and RDTR

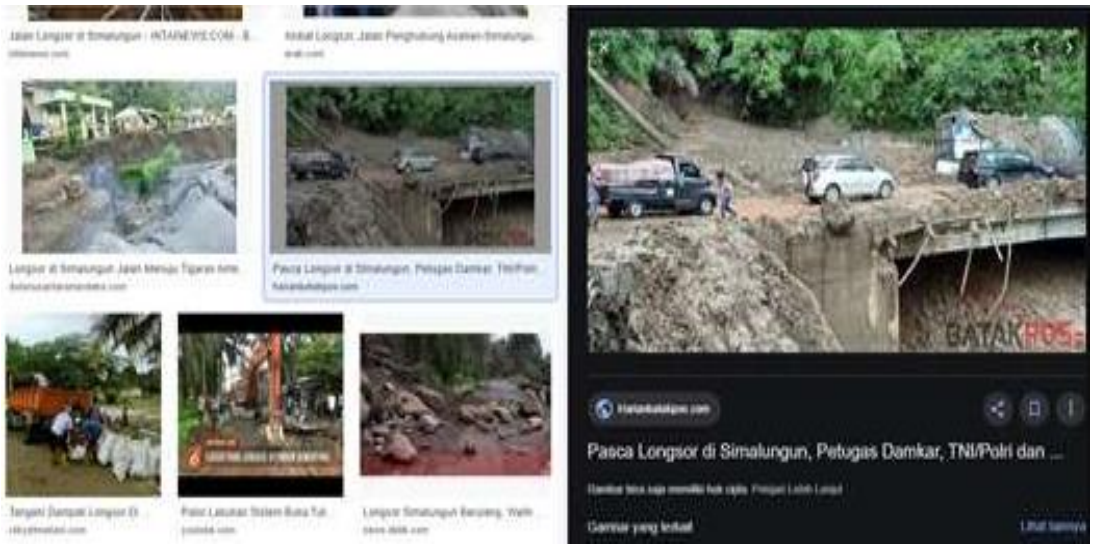
Simalungun Regency is located between 02'36,03'1 north latitude and 98'32-99'35 east longitude. The most extensive district is Tanah Jawa District with an area of 49,175 ha, while the smallest area is Dolog Pardamean District with an area of 9,045 ha. . In terms of boundaries, Simalungun Regency is bordered by 7 Regencies / Cities in the Lake Toba area. In more detail, Simalungun Regency is bordered by: North: Kab. Deli Serdang and Kab. Serdang Bedagai in the East: Asahan Regency and Batubara Regency in the South: Tobasa Regency in the West: Karo Regency. With a total of 31 districts. The following is a table of regional disasters that occurred in Simalungun district

Table.1 Landslide Disaster Data in Simalungun Regency in 2010- 2015

No	Year	amount
1	2010	15 Incident
2	2011	22 Incident
3	2012	24 Incident
4	2013	22 Incident
5	2014	8 Incident
6	2015	14 Incident
7	2016	10 Incident
8	2017	16 Incident
9	2018	9 Incident
10	2019	21 Incident
Total		**161** Incident

Source : BPBD Kabupaten Simalungun

The following is an example of a landslide disaster:



Picture 1. landslide disaster

In this aspect, the researcher made simalungun regency the object of research. Therefore, the researcher wants to see how the policies carried out by the government in mitigating what

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happens in simalungun regency in the mitigation stages and in the stages of anticipating disasters through an analysis of the shape and condition of its territorial areas. So the researchers took the

Formulation of the problem

How is the meaning contained in Community Social Phenomenon As A Preventive Action And Disaster Mitigation Of Longsor Disasters In Simalungun District.

Research Purposes

To find out the meaning contained in Community Social Phenomenon As A Preventive Action And Disaster Mitigation Of Longsor Disasters In Simalungun District.

METHOD

Qualitative research is research that is used to examine the condition of natural objects, where researchers are key instruments (Sugiyono, 2005), yang didalamnya juga terdapat penguatan analisis dengan observasi, literature rivew. The data collection technique is the most strategic step in research, because the main objective of this research is to get data. Without knowing the data collection technique, the researcher will not get data that meets the specified data standards. There are several data collection techniques, including: Observation, Nasution (1988: 118), that is, researchers make observations in order to obtain the data needed as research material, both in primary and secondary data in the study, Dokumentation. Namely, data collection, either in the form of written or unwritten documents in primary and secondary data. 1). Primary Data, Namely, data collection is carried out directly on the object of research or the object under study. In this case the data is obtained by conducting interviews, namely obtaining data by means of question and answer and dealing directly with informants or sources. 2) Secondary Data, Namely the collection of data relevant to the problem under study obtained from books and references and other texts. The data obtained is secondary data and is used as supporting data in analyzing data.

Concept Definition

Concepts are those used to describe abstractly the events, circumstances of groups or individuals that are the center of social science attention. From the description above, the concept of thought is used to narrow the attention to be studied. Then the concept definition is as follows:

1. According to Pasal 1 Angka 1 Undang-undang No. 26 Tahun 2007 concerning Spatial Planning, what is meant by space is: "Containers which include land space, sea space and air space, including space within the earth as a unified area, a place for humans. and other creatures live, carry out activities, and maintain their survival ".
2. Understanding Preventive is an act of social control taken to prevent or reduce the possibility of things that are not desirable in the future (Gunawan, 2005).
3. Social phenomena are real events that can be seen directly through the five senses and can be explained in scientific research (freddy rangkuti: 2011).
4. Integration social is the process of adjustment between the different elements in community life so as to produce patterns of community life that have harmony in function. (Muin: 2006:69)
5. Factors that cause landslides naturally include morphology of the earth's surface, land use, lithology, geological structure, rainfall, and seismicity. Apart from natural factors, it is also caused by human activity factors that affect a landscape, such as agricultural activities, slope loading, slope cutting, and mining.

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Data Analysis

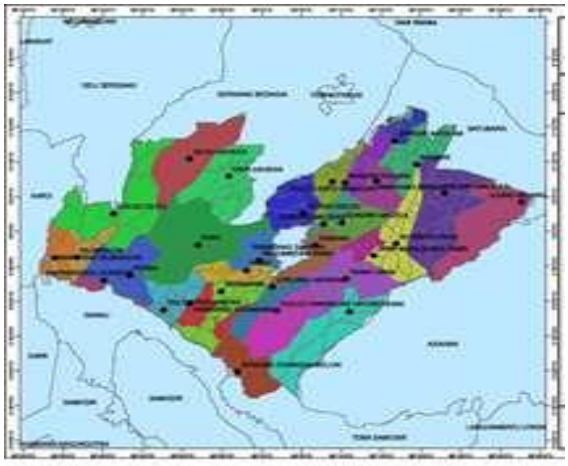
After filling in the primary and secondary data, expert perceptions of internal and external factors in the Simalungun Regency government will be obtained, so that an indicator table of internal and external factors will be obtained, as described in the table. 3.1.

Table 2. Factor indicators in SWOT
Assessment of Internal and External Factor Indicators

Faktor internal	Faktor eksternal
Faktor 1	Faktor 1
Faktor 2	Faktor 2
Faktor 3 dst	Faktor 3 dst

Source : Soesilo (2002)

RESULT AND DISCUSSION



Picture 2. Map Of Simalungun Regency

Simalungun Regency is the 3rd largest district after Madina and Langkat Regencies in North Sumatra. It has a strategic location and is in the tourist area of Lake Toba-Parapat. The widest sub-district is Hatonduhan District, while the smallest is the Jawa Maraja Bah Jambi district with an average distance of 51.42 km to the district capital, where the farthest distance is Silou Kahean District 127 km and Ujung Padang 113 km.

Simalungun Regency is located between 8 districts, namely Serdang Bedagai, Deli Serdang, Karo, Tobasa, Samosir, Asahan, Batu Bara, and Pematangsiantar City. Its astronomical location is between 02 ° 36'- 03 ° 18 'North Latitude and 98 ° 32' 99 ° 35 'East Longitude with an area of 4,372.50 km² at an altitude that varies from 0-50 meters above sea level to an altitude of more than 1,500 meters with a slope of 0-2% covering an area of 236,176 ha, a slope of more than 40% covering an area of 27,845Ha, the rest is on a slope of 2-40% or 75 percent of the land is on a slope of 0-15%.

Rainfall

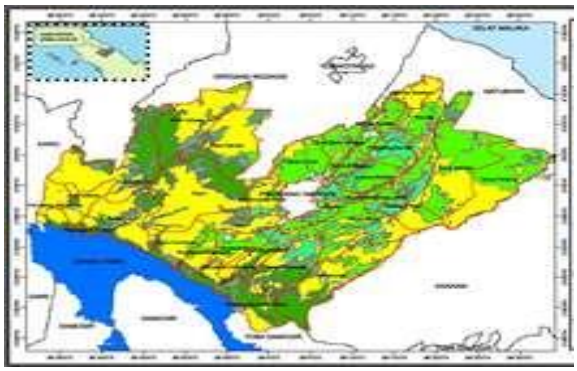
Simalungun Regency has a fairly high level and intensity of rain, which is one of the factors that triggers landslides. In 2014-2015, the highest rainfall intensity occurred in December, namely 560 mm and 115 mm in June.

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Picture 3. Map of Rainfall

Land



Picture. 4. Map of Land

Paddy fields in Simalungun Regency 43,896 hectares spread over 26 sub-districts. Hutabayu Raja and Tanah Jawa Subdistricts are sub-districts that have 21.38 percent of the area of rice fields, 5,031 hectares and 4,356 hectares respectively and all of them have used technical irrigation, while Purba, Haranggaol Horison, Dolok Pardamean, Silou Kahean and Bosar Maligas sub-districts do not have paddy fields.

Simalungun Regency is a potential area for horticultural production. Production, including onions, in 2014 amounted to 1,602 tons, where the largest production was in Pamatang Silimahuta sub-district. Each production of chilies, potatoes, cabbage is 16,806 tons, 44,672 tons and cabbage with 78,812 tons, where the largest production comes from Purba sub-district. Other production advantages of ancient sub-districts are tomatoes, chinese cabbage and green beans.

Slope



Picture 5. Slope

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Analysis of Social Phenomena

Internal Factor

Based on the results of the data analysis above, the following data can be btained:

Each parameter that causes landslides has different characteristics.

a. Rainfall factors and rainfall intensity are quite dominant causing soil movement because the average rainfall reaches an average of 314 mm per year with a maximum rainfall of 560 mm minimum 115 mm, the biggest rainfall occurs in December with 560 mm per year.
b. The slope or slope of the land is a very dominant factor in the relatively high level of slope or slope of the land around 27,845 hectares in Simalungun. Dolok panribuan with an area of 863 ha, Dolok Pardamean 1575 ha, Dolok Silou 3236 ha, Girsang Sipangan Bolon 3442 ha, Haranggaol horizon 1676 ha, Jorlang Hataran slope 15-25% 2694 ha, Pamatang Sidamanik 1044 ha, Purba 191 ha, Silimakuta 1271 ha and Raya 5202 Ha.

Community Social Penomena

a. The Government does not have regional regulation.
   Based on the results of the research, the Simalungun Regency Government must compile and make a regional regulation on regional disasters.
b. Less conscious communities will be environtmen.
   Understanding of the Environment must be understood by all people of Simalungun Regency in order to protect the environment
c. Lack of socialization
   There is a need for socialization for the community to understand the environment
d. People do not understand will be hazard disaster
e. It is necessary to have an understanding of the community about the dangers of landslides regarding the signs of landslides

CONCLUSION

Based on the results of the data analysis above, the following data can be obtained:

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Social Phenomena

a. The government makes regional regulations
b. The community is given socialization about the dangers of disasters
c. The existence of a program on hazards and mitigation
d. There is interaction between interest groups

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