

## **THE IMPACTS OF THE GRAVEL MINING ACTIVITY ON THE SOCIETY INTERACTION IN JUNJUNG SIRIH SOLOK**

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### **ABSTRACT**

This study was motivated by the impacts of the gravel mining activity on the society social interaction. Gravel mining in Gando Nagari Paninggahan changes to the society. The purposes of this study were: 1. Analyzing the impact of the gravel mining activity on the society interaction in Junjung Sirih Sub-district 2. Finding out the efforts to overcome the social interaction changes due to the gravel mining activity to the society in Junjung Sirih Sub-district. The theory used in this study was the theory of social changes according to Emile Durkheim. This study used a descriptive qualitative research approach. The selection of the informants in this study was by using a purposive sampling technique. The types of data used were primary data and secondary data. The methods of collecting data were in the form of observation (non-participant), in-depth interviews and document studies. Analysis group unit. The data analysis was done by using the milles and huberman analysis techniques, the data were presented in the four stages: 1. Data collection 2. Data reduction 3. Display data 4. Veritification and Conclusion. The results of this study revealed that 1. Analyzing the impacts of the gravel mining activity on the society interaction in Junjung Sirih a. society cooperation. b. accommodation. c. assimilation d. competition. e. disputes or social conflicts 2. Finding out the efforts to overcome the changes in the social interactions due to of the gravel mining activity Junjung Sirih sub-district.

**Keywords: Mining impacts, Interaction**

### **INTRODUCTION**

Resources are an ability to fulfill or handle something, they can be a source of supply, support, and facilities produced by the ability or from one's thoughts (Hermon, 2010). Resources are a number of material components of the environment of ecosystems that provide goods and services that are useful for fulfilling human needs including mass and energy,

biological and non-biological objects which are factors of production or economic activity such as capital, human labor, energy, water, minerals can set as total stock. Rural or this stock can be a resource if it can be used by humans to fulfill their daily needs (Haget, 1983; Katili, 1983; Hermon, 2011; Hermon, 2012; Hermon, 2015; Hermon, 2016; Hermon, 2017). Natural resources are all things that exist in the natural environment that can be used for various purposes and needs of human life to be more prosperous (Hermon, 2012; Oktorie, 2017; Hermon, 2014; Hermon, 2016; Hermon *et al.*, 2017; Oktorie, 2018). Natural resources can be found anywhere such as in land, water, land surface, air, etc. The examples of natural resources are mining goods, sunlight, plants, animals, and others. Natural resources can be distinguished by type, nature of renewal, and use or use (Hermon, 2014; Hermon, 2016; Hermon *et al.*, 2018; Kristian and Oktorie, 2018). Natural resources are divided based on their types: 1. biotic natural resources, namely natural resources originating from living things, for example: plants, animals, micro-organisms, and others. 2. Non-living/abiotic natural resources, namely natural resources originating from inanimate objects, for example: mining materials, water, air, rocks, etc.

Natural resources based on their uses can be divided into; 1. Natural resources producing raw materials, namely natural resources that can be used to produce objects or other goods, so the value of use will be higher, for example: forest products, mining goods, agricultural products, and others (Hermon *et al.*, 2019). 2. Energy-producing natural resources, namely natural resources that can produce or produce energy for the benefit of mankind on the face of the earth, for example: waves, geothermal energy, river currents, sunlight, petroleum, natural gas, etc. The minerals included in each group are regulated based on the detailed grouping provisions, in Government Regulation No.27 of 1980, namely: Group A excavation materials or strategic excavation materials, consisting of: petroleum, liquid bitumen, earth candle, gas nature, solid bitumen, asphalt, anthracite, coal, young coal, uranium, radium, thorium, radioactive materials, nickel, cobalt and tin. Group B excavation materials or vital excavation materials consist of: iron, manganese, molybdenum, chromium, walfran, vanadium, titanium, bauxite, copper, lead, zinc, gold, platinum, silver, mercury, diamond, arsenic, antonium, bismuth, yttrium, rhutenium, crium, berrillium, corundum, zircon, quartz crystal, cryolite, flouspar, barite; iodine, bromine, chlorine, sulfur. Group C excavation materials or industrial excavation materials, consisting of nitrate, phosphate, rock salt, asbestos, talc, mike, graphite, magnesite, yorasite, leusite, alum, ocher, gemstone, quartz sand, kaolin, feldspar, cast, bentonite, pumice, terrace, obsidian, pearlite, diatomaceous earth, marble, slate, dolomite, calcite and limestone (Sudrajat, 2013).

Mining is one type of activity that extracts minerals and other mining materials from within the earth. Mining is a process of extracting minerals that can be extracted from the earth (Hermon, 2016; Hermon *et al.*, 2018; Hermon, 2019). Mine is the place where mining takes place. The definition of mining in accordance with the *UU Minerba No. 4 of 2009* article 1 in this Law which is meant by mining is part or all of the stages of activity in the context of research into the management and exploitation of minerals or coal which includes general investigation, exploration, feasibility studies, construction, mining, management and refining, transportation sales, and post-mining activity.

## METHOD

Based on the background above, this study used a descriptive qualitative approach because this type can describe and explain a phenomenon. The selection of information here with a purposive sampling technique was to determine the criteria of research informants, with the data collection techniques using observation, interview and documentation techniques. Techniques for checking data were by using a data triangulation. The analysis of the data used the data analysis of Miles and Huberman.

## RESULTS AND DISCUSSION

Society interaction after the gravel mining in Junjung Sirih Sub-District in a connection with this research is seen by the forms of social interaction of the society in Junjung Sirih Sub-District. The forms of the social interaction encountered in the field are associative and dissociative social interactions namely cooperation, accommodation, assimilation, competition and conflict. The collaboration between the society and the government in Junjung Sirih Sub district environment is a positive activity in Junjung Sirih Sub district. The forms of social interaction that are manifested in migrant organizations are cooperation. Cooperation carried out by mass organizations in the Junjung Sirih sub-district and District X Koto above is a form of social interaction. The four *nagari* through their representatives consisting of migrant bonding organizations were determined to urge the Solok Regent to immediately find a solution to the problem. The mine located in Jorong Gando Nagari Paninggahan has been very disturbing to residents because of the extraordinary negative impact. The road through the mine's trucks has been severely damaged. When the dry season produces dust that is immeasurable, and when the rainy season the road is like a pool of buffalo and fish ponds. Another form of social interaction

is accommodation. This form of interaction or accommodation will be realized when the efforts of each society to relieve a conflict that might occur to achieve a stability and peace.

The conflict that occurred in Junjung Sirih Sub-district was between the society and the mining party which led to street demonstrations or boycotts. These actions are carried out by the majority of the capitalists. The three sub-districts in conflict with the gravel mining people namely Nagari Muaro Pingai, Nagari Paninggahan and nagari Saning Baka. Several granules of agreement were produced. Among the agreements that must be met by the mine the results of the meeting are: 1. the mine promised to pave the road. 2. Before the asphalt takes place, the mining company will water the dusty road 6 times a day. 3. Stop activity during school rush hour, *zuhur* prayer time and sunset and limit the convoy so as not to disturb other road users. 4. If there are people who suffer from the effects of road dust, the mine is willing to pay for treatment.

Another form of the social interaction is assimilation. In the research form of social assimilation interaction in Junjung Sirih Sub-district. The habit of the society is waning after the gravel mining activity in Junjung Sirih Sub-district. The habits of fathers who usually sit in coffee shops are rarely found, mutual cooperation activity once a month are rarely found, and also in patrol post who are usually flax with young people are rarely seen. These society practices have been discovered after the gravel mining activity. Because gravel mining activity that have damaged the road and also cause dust pollution that can threaten public health. Various types of diseases that will target the society such as ISFA, tuberculosis, skin infections and eye infections.

Competition in the sub-district environment upholds betel nut in general is an activity to get a job. Individual competition is felt by each society in achieving or obtaining a particular goal. The competition that has been dominated by Junjung Sirih Sub-district society is to get a job in the gravel mining. The gravel mining in Jorong Gando Nagari Paninggahan is a communal land belonging to *Datuk* Majo Enda in Nagari Paninggahan. The gravel mining in Nagari Paninggahan is managed by a niece from Majo Endah. However, this gravel mine prioritizes those who work in gravel mining companies in Nagari Paningah, the same as their own or one tribe, namely the banana tribe. The competition between the society and the owner of the mine was more prioritizing his friendship with one clan with him.

Conflict is one form of social interaction. The conflict or conflict that exists in the Junjung Sirih sub-district is a dispute between the society and the gravel mining actors. Conflict is a social problem that arises because of differences of opinion or views that occur in the society. The presence of the gravel mining companies has an impact on conflicts between

communities and mining companies. The conflict could be triggered because the society did not accept the environmental conditions being damaged by trucks belonging to the gravel mining which could threaten the health of the society. Initially the sub-district society of MuaroPingai who conducted a conflict with the society boycotted the main road which was passed by mining trucks. However, in the same year, in 2016, the Paninggahan society and the Saing Bakasociety staged a boycott of the road. This conflict occurs because the owners are over-exploiting. As the result, the mining activity has an impact on damaged roads and also cause dust pollution. From this it causes various types of diseases that will affect public health. Thus, the society did not accept and staged a boycott of the main road through the mining truck.

The society made an open letter aimed at the Regent of Solok District and the Governor of Padang City. An open letter made by the society so that the government will improve infrastructure and also revoke the mining permit in Nagari Paninggahan. Because this mine has ratified the society in four sub-districts namely Nagari Paninggahan, Muaro Pingai, Saning Baka and Nagari Sumani. Open letters made by the society exist in writing and also verbally. An open letter in writing was sent directly to the Regent of Solok. Whereas verbally delivered to the office of *Wali Nagari*, *KAN* and also *BMN*. An open letter made by the society only asked the government to improve the road immediately.

Institutions existed in the Sub-District of Sirih, such as *Wali Nagari*, *BMN* and *KAN*. The institutions conduct mediation or meetings for clarity of problems experienced by the society in the four sub-districts. However, in early 2017 the government just started to make road repairs that were in Nagari Muaro Pingai. The government made road repairs on Muaro Pingai about 1 kilometer away. Whereas the damaged road is around 3 kilos meters and around 2 kilometers is still repaired. In 2018 the owner of the mining in Nagari Paninggahan did not appear to be passing by as usual. It can be caused due to long-standing conflicts, truck road boycotts, and mediation of residents and migrants from the four sub-districtsto demand revocation of mining permits to the government. In the same year, in 2018, the Environmental Agency (LH) plunged into a gravel mining site located in Nagari Paninggahan. Nevertheless, in the same year, in 2018 the government made infrastructure improvements starting from Nagari Paninggahan to Nagari Saning Baka by paving the road. In Nagari Sumani, road repairs were carried out by covering only potholes with asphalt because the road conditions in Nagari Sumani were categorized as levels of minor damage.

## **CONCLUSION**

The impacts of the gravel mining activity on society interaction in Junjung Sirih Sub-districts the fading of society interaction due to gravel mining activity that have damaged infrastructure, giving rise to problems that fade society interactions which are usually intertwined with buying and selling activity and also cause various diseases. The society is afraid to carry out activity outside the home unless it is a necessity for consultation and various diseases that trigger the society to be afraid to move outside the home. Suggestions For the government should be more observant about giving permission to the mine, and also the mine must pay more attention to the AMDAL

## **REFERENCES**

- Afrizal. 2008. Pengantar Metode Kualitatif. Padang.
- Banowati, E. 2013. Geografi Sosial. Yogyakarta: Ombak
- Fatchan. 2013. Geografi Tumbuhan dan Hewan Ombak Dua. Yogyakarta
- Hermon, D. 2010. Geografi Lingkungan: Perubahan Lingkungan Global. UNP Press.
- Hermon, D. 2011. Studi Karakteristik Epipedon berdasarkan Penggunaan Lahan di Kecamatan X Koto Kabupaten Tanah Datar. Universitas Andalas.
- Hermon, D. 2012. Dinamika Cadangan Karbon Akibat Perubahan Tutupan Lahan Permukiman di Kota Padang Sumatera Barat. Forum Geografi: Indonesian Journal of Spatial and Regional Analysis. Volume 26. Issue 1. p: 45-52. Uniiiversitas Muhammadiyah Surakarta.
- Hermon, D. 2012. Mitigasi Bencana Hidrometeorologi: Banjir, Longsor, Degradasi Lahan, Ekologi, Kekeringan, dan Puting Beliung. UNP Press. Padang.
- Hermon, D. 2014. Impacts of Land Cover Change on Climate Trend in Padang Indonesia. Indonesian Journal of Geography. Volume 46. Issue 2. p: 138-142. Fakultas Geografi Universitas Gajah Mada.
- Hermon, D. 2014. Desain Kebijakan Tanggap Darurat dan Pemulihan Bencana Letusan Gunung Sinabung. Seminar Nasional Geografi. Master Program of Geography Education, Universitas Negeri Padang.
- Hermon, D. 2015. Geografi Bencana Alam. Jakarta: PT RajaGrafindo Persada.
- Hermon, D. 2016. Mitigasi Perubahan Iklim. Rajawali Pers (Radjagrafindo).
- Hermon, D. 2016. Estimate of Changes in Carbon Stocks Based on Land Cover Changes in the Leuser Ecosystem Area (LEA) Indonesia. Forum Geografi. Volume 29. Issue 2. p: 188-196.
- Hermon, D. 2016. The Change of Carbon Stocks and CO2 Emission as the Result of Land Cover Change for Tin Mining and Settlement in Belitung Island Indonesia. Journal of Geography and Earth Science. Volume 4. Issue 1. p: 17-30.

- Hermon, D. 2016. The Strategic Model of Tsunami Based in Coastal Ecotourism Development at Mandeh Regions, West Sumatera, Indonesia. *Journal of Environment and Earth Science*. Volume 6.
- Hermon, D. 2017. *Climate Change Mitigation*. Rajawali Pers (Radjagrafindo).
- Hermon, D., P. Iskarni., O. Oktorie and R. Wilis. 2017. The Model of Land Cover Change into Settlement Area and Tin Mining and its Affecting Factors in Belitung Island, Indonesia. *Journal of Environment and Earth Science*. Volume 7 No. 6. p: 32-39. IISTE.
- Hermon, D., Ganefri., A. Putra and O. Oktorie. 2018. The Model of Mangrove Land Cover Change for the Estimation of Blue Carbon Stock Change in Belitung Island-Indonesia. *International Journal of Applied Environmental Sciences*. Volume 13. Issue 2. p: 191-202. Research India Publication.
- Hermon, D., A. Putra and O. Oktorie. 2018. Suitability Evaluation of Space Utilization Based on Environmental Sustainability at The Coastal Area of Bungus Bay in Padang City, Indonesia. *International Journal of GEOMATE*. Volume 14. Issue 41. p: 193-202. Geomate International Society.
- Hermon, D. 2019. Evaluation of Physical Development of The Coastal Tourism Regions on Tsunami Potentially Zones in Pariaman City-Indonesia. *International Journal of GEOMATE*. Volume 17. Issue 59. p: 189-196. Geomate International Society.
- Hermon, D., Ganefri, Erianjoni, I. Dewata, P. Iskarni and Alexander Syam. 2019. A Policy Model of Adaptation Mitigation and Social Risks The Volcano Eruption Disaster of Sinabung in Karo Regency-Indonesia. *International Journal of GEOMATE*. Volume 17. Issue 60. p: 190-196. Geomate International Society.
- Kristian, A and O. Oktorie. 2018. Study of Coastal Mangrove Conservation in the World. *Sumatra Journal of Disaster, Geography and Geography Education*. Volume 2. Issue 1. p: 49-52
- Nandang, S. 2013. *Teori dan Praktis Pertambangan Indonesia*. Yogyakarta: PustakaYustisia.
- Oktorie, O. 2017. A Study of Landslide Areas Mitigation and Adaptation in Palupuah Subdistrict, Agam Regency, West Sumatra Province, Indonesia. *Sumatra Journal of Disaster, Geography and Geography Education*. Volume 1. Issue. 1. p: 43-49. Master Program of Geography Education.
- Oktorie, O. 2018. Model Kebijakan Responsif Pemulihan Bencana Letusan Gunung Sinabung. *Jurnal Kapita Selektu Geografi*. Volume 1. Issue 1. p: 15-20
- Sugiyono. 2012. *Memahami Penelitian Kualitatif*. Bandung. Alfabeta
- Peraturab UU Minerba No. 4 tahun 2009 pasal 1 dalam Undang-undang.