Impact of sand mining on social economic conditions of community

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Abstract Mining is a business activity or business in the field of extracting natural resources. Mining activities are inseparable from agrarian law because agrarian law is the basic law of laws that have areas of processing of earth bodies, water, and space and natural resources. Agrarian law is based on Article 33 paragraph (3) of the 1945 Constitution, which in essence all activities involving the earth, water, and space and natural resources must be beneficial for the prosperity of the people of Indonesia. The purpose of the impact of sand mining on the economy of the community in Busoa Village, Batauga District, Buton Regency is to find out the impact of sand mining on the economy of the people in Busoa Village, Batauga District, South Buton Regency. The impact of sand mining on the economy of the community in Busoa Village, Batauga District, Buton Regency, is the change in miners' income, the miner's family experiences insignificant welfare improvements and fulfilling the needs of miners has increasingly been fulfilled.

1. Introduction

Poverty is a condition where a person or community group in a certain area, which cannot fulfill their basic needs following the rules of certain values and norms that apply in society. Many people, especially in Indonesia, are living in a circle of poverty, in fact, in 2014 as many as 40% of the population in Indonesia lived in poor and almost poor conditions [1]. Factors that cause poverty include the first, low levels of education, resulting in a lack of ability to develop themselves [2]. Second, the limited employment due to lack of mastered skills resulted in the lack of access and
networks owned. Solutions for the community to become independent and free from poverty, the community uses natural resources around them to meet their needs [3].

Natural Resources (SDA), which is everything that comes from nature. SDA can be used to meet the needs of human life. SDA is classified into biotic components, such as animals, plants, and microorganisms, the next group is abiotic components, such as petroleum, natural gas, various types of metals, water, and soil. Indonesia is the country with the second-highest biodiversity after Brazil. With this fact shows the high diversity of natural resources that are owned by this country [4]. Indonesia's abundant wealth is formed by several factors including: first, from the astronomical side, Indonesia is located in the tropics which has high rainfall, so the land becomes fertile and many are overgrown with pepohonan. Second, in terms of geology, Indonesia is located at the point of tectonic plate movement so that many mountains are formed which are rich in minerals. Third, waters in Indonesia are rich in food sources for various types of plants and marine animals and contain various types of mineral sources [5].

The community can widely use natural wealth in Indonesia. According to Smelter, as quoted by Agung, all this time development and policymaking activities must come from the center (centralized), but after the policy on regional autonomy, a region can manage its natural resources in its area. So natural resources in a certain area can be managed by the wider community [6].

One of Indonesia's natural resources is mining potential, lots of mining materials spread from Sabang to Merauke, no wonder there are many mining factories such as in Cepu, which are famous for their oil. Other areas that have the potential for resources in the form of sand are in South Buton Regency [7].

South Buton Regency is surrounded by rivers and seas which have a lot of potential sand, one of the potentials of sand is located in Batauga District. This region is known to have abundant natural resources of sand and spread along the coast of Busoa Village. The village of Busoa is one of the areas passed by the coast of Busoa Village [8]. The abundant potential of sand on the beach of Busoa Village is used by residents to make a living to fulfill their needs. People do sand mining using simple tools for modern tools. Sand mining in Busoa Village is usually done in groups, the number of groups varies from 2-3 people, 4-5 people or 6-8 people.

It should be noted that at first the majority of the people in Busoa Village were fishermen and farmers who earned income only from the results of fishing and farming. The economic crisis in some communities in the village caused them to find alternative livelihoods in other sectors to fulfill their needs, one of which was sand mining.

Sand mining business activities contribute to improving the economy of the community. On the other hand, sand miners meet people and form groups to collaborate, interact to achieve common goals. The business of sand mining as a livelihood for the people around the coast of Busoa Village has the effect of an environmental change, especially for the socio-economic conditions of the mining family.

2. Methods
Data analysis, as emphasized by Patton as quoted by Lexy, is the process of arranging data sequences, organizing them into a basic sequence of patterns, categories and units [9]. The analysis technique used to analyze the data in this study is an interactive technique that refers to the Miles and Huberman models, there are three activities carried out simultaneously namely data reduction, data presentation and drawing conclusions or verification [10].

a. Data reduction is the process of selecting, centralizing, paying attention, abstracting and transforming rough data from the field. The process takes place during the study from the beginning to the end. In this reduction, the researcher selects the correct data by checking with other informants who feel more understanding about the availability of resources in the form of sand, mining models, mining impacts on the socio-economic conditions of the miners.
b. Data presentation is a set of structured information data to give the possibility to draw conclusions and take action. The form of the presentation includes narrative texts, matrices, graphs, networks and charts, to facilitate reading and draw conclusions. In the process of presenting the data, it is done when the researcher concludes the research data from the informant, observation, interview, or documentation.

c. Conclude, after conclusions are then verified. The meanings that emerge from the data must always be verified so that their validity is guaranteed [11].

The three steps mentioned above are activities that cannot be separated from one another to produce an analysis of the data needed to answer the problems in this study. According to Wayan (2014), several factors can determine the high and low socio-economic conditions of sand miners in the community, namely: education, type of work, income level, household conditions, place of residence, wealth ownership, positions in the organization and economic activities [12].

According to Lawang, as quoted by Darsono, social conditions are several activities or several people who carry out constant reciprocal relationships. So social conditions are social interactions that occur between sand miners in the work environment [13]. According to Gillin and Gillin as quoted by Soerjono, social interaction is a dynamic social relations and involves the relationship between individuals, groups of people and individuals with groups of people [14].

According to Soeriatmadja, as quoted by Sudargo et al., Economic conditions can affect the level of prosperity that can be seen in its basic needs, the most basic needs are housing, food and clothing. To meet these basic needs, family income is needed. The thing that is a measure of the economy and pride of the family is a home or place of residence. While the high and low level of one's life is determined by the size of the income of each family [15].

According to Maslow as quoted by Hendro, for humans satisfaction has a trait that is temporary for that the main needs that must be fulfilled are physiological after physiological needs are met, people are motivated to meet other needs that have higher levels or such as security needs, social needs and need for achievement. So the economic condition of sand miners can be seen from meeting physiological needs as well as secondary and tertiary needs [16].

3. Results and discussion

3.1. Condition of sand miners in Busoa Village

Village communities in their daily lives depend on nature. Nature is everything for villagers because nature provides what humans need for their lives. They process nature with simple equipment to pick the results to meet their daily needs. As is known, rural communities are often identified as agrarian societies, namely people whose economic activities are centered on agriculture.

Like the one in Buso Village, Batauga Subdistrict, South Buton District, most of the residents work as farmers. They depend on their lives in the field of marine and agriculture. Because fertile soil conditions and smooth irrigation support it. So from that do not be surprised if people use natural fertility to support their daily lives.

Another condition that was also seen in Busoa Village, Batauga Subdistrict, South Buton Regency, was how the relations between fellow members of the community. In addition to still relying on nature as an economic activity, the relationship that exists between its citizens is still very close. In describing these conditions can be seen from the socio-economic conditions in the hamlet.

1. Availability of resources in the form of sand in Sendangsari Village can be seen from: first, the location of sand mining is on the River Progo and is carried out by location to adjust the presence of sand, if the sand in one location is thinning then the miners will look for another location. Second, the sand mining area, Sendangsari Village itself has 5 points of land for community mining businesses. The land can be mined by the community as well as land in 5 hamlets, namely: Hamlet Manukan, Jaten, Mangir Kidul, Mangir Lor and Mangir Tengah while the land that can be mined is on the river or the riverbank. Third, the availability of sand can be known through the
current sand stock, while there is more sand stock during the rainy season because the flow of
water will carry sand and sand stocks when the dry season has a smaller amount.

2. Sand mining activities in Sendangsari Village use two sand mining models, namely: first, a
manual mining model where miners use simple tools in the process of excavation, separation,
loading and transport. Second, a mechanical mining model where miners use heavy equipment,
namely a backhoe in the process of preparation, dredging, separation and transportation.

3.2. Impact of sand mining on the socio-economic condition of the community

To measure the social impact of sand mining can be seen from the processes and forms of social
interaction, cooperation, competition, conflict or conflict and efforts to overcome them.

Mining activities have an impact in the form of social and economic impacts for the community,
especially for miners.

1. The social impact of sand mining activities is related to social interaction and cooperation, while the
impact is positive and negative impacts, namely:
   a. The positive impact of sand activities on the social conditions of sand miners is first, the
      interaction in the form of cooperation, namely the intensity of cooperation and increasing
      mutual assistance between miners. Second, cooperation in providing information through WA
      grub (WhatsApp) or SMS (Short Message Service). Third, collaborate in solving problems
      between sand miners. Fourth, maintain good relations between sand miners by conducting
      social gathering every Saturday Kliwon. Fifth, healthy competition between sand miners to
      attract consumers by picking up balls where the miners seek and offer sand through SMS or
      WA
   b. The economic impact felt by the miner's family is first, sand mining changes the income of the
      miner's family because previously the miners were farm laborers who worked seasonally after
      switching professions to sand mining were able to provide more constant income even though
      income was uncertain. Secondly, sand mining activities can improve the welfare of the miner's
      family even though they experience a not too significant increase. This can be seen from the
      condition of the sand mining houses that are getting better and more permanent after working
      as sand miners. Also, it can be seen from a large number of sand miners' debts when they are
      more farm laborers compared to the amount of debt after mining less sand. So it can be said
      that the welfare of the family of sand miners experienced an insignificant increase. Third, the
      adequacy of miners' needs can be seen from fulfilling their primary needs when they become
      farm laborers, only able to meet food needs twice a day and experience improvement after
      working as sand miners who can meet food needs three times a day. For secondary needs, it
      has also experienced an increase after mining sand so that it can meet secondary needs such as
      motorbikes, television, and refrigerators.

3.3. Impact of sand mining on the environment

Illegal sand mining causes a deterioration in the carrying capacity of the river against the life of the
surrounding biotic environment (Subagia & Sutrisno, 2013). Who would have thought, behind the
 lucrative sand mining business, tucked away by the threat of disasters, especially disruption to the
preservation of environmental ecosystems and the existence of surrounding buildings [17]. One of
them was the decline of the riverbed. The dredging of sand that is carried out continuously over a long
period makes the stacks of river sand continue to decrease so that the riverbed gets deeper.

Also, sand mining can cause the physical environment of the active river to change, the surface of
the river widens, the movement of rivers and the collapse of river banks that can cause erosion, this
can be detrimental to residents living on the cliffs above the river. By residents, especially if it enters
the rainy season, they are always anxious and uneasy, there are even some residents who are looking
for other ways to build houses because they think their previous residence (located on a riverbank) is no longer safe.

Another negative impact that is usually generated from sand mining is that there is a change in the surface of the land, namely the presence of large excavated Jubang exerts which are inundated and become nesting sites for mosquitoes, which will later become a source of the disease: for residents who live around the river. The fatal result is death. This incident only happened about three months ago, a child around three years old was trapped in a sand dug pit located on the edge of the river, for a moment the child fell and could not be helped. The lack of supervision coordination from the competent agency cannot overcome these problems

4. Conclusion
The economic impact felt by the miner's family is first, sand mining changes the income of the miner's family because previously the miners were fishermen and farmers who worked on a seasonal basis after switching professions to sand mining were able to provide more stable income even though income was uncertain. Secondly, sand mining activities can improve the welfare of the miner's family even though they experience a not too significant increase. This can be seen from the condition of the sand mining houses that are getting better and more permanent after working as sand miners. Also, it can be seen from a large number of sand miners' debts when they are more farm laborers compared to the amount of debt after mining less sand. So it can be said that the welfare of the family of sand miners experienced an insignificant increase. Third, the adequacy of miner's needs can be seen from fulfilling primary needs when becoming fishermen and farmers are only able to meet food needs twice a day and experience improvement after working as sand miners who can meet food needs three times a day. For secondary needs, it has also experienced an increase after mining sand so that it can meet secondary needs such as motorbikes, television and refrigerators.

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