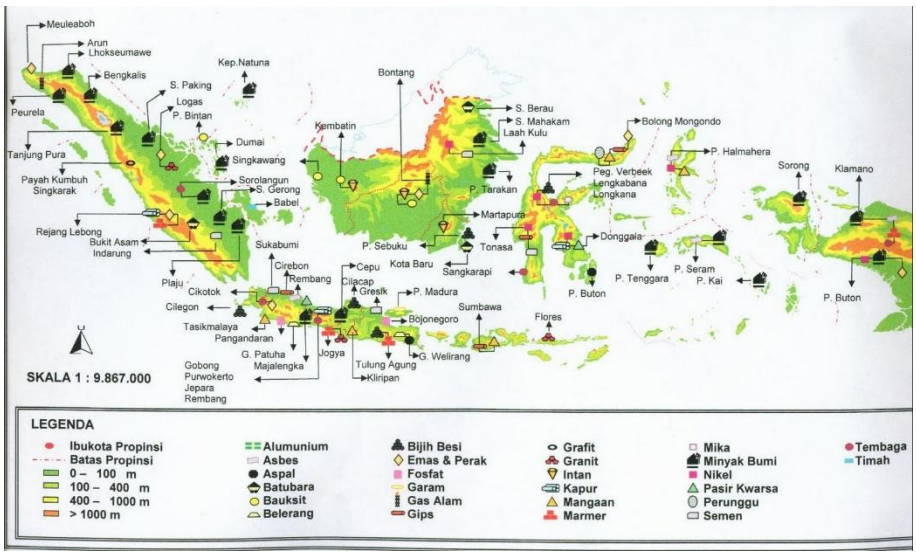
CHAPTER I

INTRODUCTION

1.1 Background

Indonesia is an archipelagic country with abundant natural resources ranging from marine and fishery sectors, agriculture, livestock, forestry, plantation and mining and energy. Among all the available natural wealth, the most promising wealth to be managed is in the mining sector because the value of selling products taken from within the earth is valuable enough to absorb so much labor and other support sectors. Some areas in Indonesia have the potential to be used as mining, such as coal mining, oil and natural gas mining, gold mining, stone mining, asphalt mining, sand mining and other mineral mining.

Figure 1.1 Distribution of Natural Resources in Indonesia



Source: *https://www.bappenas.go.id*

Mining technology and equipment in Indonesia are growing rapidly from year to year, causing mining activities to become larger. This shows that the wider and deeper layers of the earth must be excavated. Mining activities also require extensive land, so sustainable excavation should be carried out for widening the area. Not only is the mining area expanded, but the area around the mine also requires expansion such as for transportation access and other facilities. Therefore, in addition to being a source of prosperity, mining can also lead to potential environmental damage due to excessive excavation. According to Mining Advocacy Network in 2014 around 70% environmental damage in Indonesia caused by the mining activity. Around 3,97 million hectares protected areas threatened to be used for mining areas including biodiversity in it. Besides that, the watershed also having damaged and getting increased in last 10 years. Around 4000 watershed that exist in Indonesia and 108 of them suffered damage.

The high growth of industry in Indonesia gives a positive contribution to the state economy in the form of taxes, royalties and other levies. Tax revenues in the State Budget (APBN) have increased 79% per year from total state revenues (*https://www.kemenkeu.go.id* accessed on 05 Feb 2018). The impact is that natural resources will experience an increase in exploitation. In addition, the regional autonomy system that is oriented towards increasing local revenue (PAD) will result in local governments being relatively easy in granting mining permits for increasing PAD. Local governments should increase PAD in order to be able to finance their own local needs so that

dependence on the central government is reduced. This doesn't only cause the welfare of the State's economy, but it will have a bad impact because of excessive exploitation of natural resources and even the environment around the utilization of natural resources becomes damaged and polluted.

In the mining industry, considerable sacrifices often don't include the cost of environmental damage. Some of the negative impacts caused by mining that caused the destruction of plantation and agricultural land, and the opening of forest areas. In the long term, mining is the greatest critical land that is hard to return to its original function, and pollutes the land, water and air. Other pollution can be dust, toxic gas, sounds, damage to ponds and coral reefs on the coast causing reduced and partial loss of biodiversity to disrupt the livelihood of fishermen. Toxic acid mine water if flowed into the river then ends up to the sea will damage the ecosystem and coastal and marine resources and cause various diseases and disrupt health. In addition, facilities and infrastructure such as roads can also be severely damaged when transporting minerals (Noviana, 2011).

One of the most important mineral mining is the mining of iron-making basic materials, such as iron sand and iron ore. The existence of iron sand in Indonesia is quite abundant. In 2015 iron sand reserves in Indonesia are around 4,781,539,331,62 billion tones. This reserve is spread in several provinces including West Java Province about 1,302,000 million tons (*http://psdg.bgl.esdm.go.id* accessed on 17 October 2017). This potential still needs to be proven so that the available reserves are clearly measured.

Generally, all iron sand mining sites in Indonesia are openly exploited and located in coastal areas (Miswanto et al.2008).

West Java is a province with a considerable iron sand reserve in Indonesia, with proven reserves of up to 1,302,000 million tons spread over several districts. This potential will certainly attract many investors to exploit iron sand which will be very beneficial to increase local revenue (*http://jabarprov.go.id* accessed on 05 Feb 2018). Negative impact which felt by the public is the increasing of road damage due to the transportation of mining products through public road. In just five years from 2007 to 2011, the ecological damage caused by iron sand mining is estimated to reach Rp35.74 billion or with a total production of approximately 1.35 million tons of iron sand (*https://daerah.sindonews.com* accessed on 15 March 2018).

Road damage is a serious problem faced by almost all countries in the world. This road damage is caused by many factors, one of which is caused by the load of vehicles passing overcapacity. Road capability for the heaviest (axle load) MST 8 tons and MST 10 tons, traversed by vehicle with MST up to 20 tons. In 2010, the biggest road damage in Indosesia is on the district / city road. The total length of road 288,185 km, about 31.14% of roads slightly damaged, good condition is only 22.46% and the rest is quite heavy. Provincial roads with a total length of 48,681 km are in good condition only about 5.85%, while from 39,310 km national roads are 13.34% in lightly damaged condition and 49.67% are in good condition and the rest are severely damaged (*www.poskota.co.id* accessed on 17 October 2017). This includes

strategic roads such as the East Sumatera Highway and the North Coast of Java. It is estimated that the social and economic costs incurred by road users are around 200 trillion rupiah per year, very large when compared with the government's investment of 3-6 trillion rupiah per year (Widjonarko 2007).

Coastal areas are areas of economic development that can experience degradation and decreased productivity. Degradation can be caused by coastal abrasion, pollution and destruction of coastal forests. This abrasion is in addition triggered by sea level rise also due to sand mining in coastal areas. Indonesia with 17,508 islands with 95,000 km of coastline and 20% of coastline in Indonesia is damaged by abrasion that increases every year (*www.pu.go.id* accessed in 17 October 2017). Among the many activities that result in coastal degradation are the mining of minerals C (coastal sand), illegal logging of coastal forests, wave pressure at high tide resulting in coastal abrasion (Sumartin 2011).

One of the areas that have potential is the south coast of Tasikmalaya, especially from Cipatujah Coast until Cikalong Coast. In one of Tasikmalaya daily newspapers mentioned that South Tasikmalaya areas known for the wealth of mineral resources. From all kinds of minerals in Tasikmalaya District, the largest is the content of iron sands along the coast of South Tasikmalaya. Geographically and administratively, there are three sub-districts in Tasela which has a beach among others, District Cipatujah, Karangnunggal and District Cikalong. Iron sand resources in Java Island are found on the southern coast. West Java has 35,612,966.9 tons of iron sand resources

consisting of 28,297,032,29ton (Fe) and 7,315,934.61 (titan) (Rosana et al, 2013). The resources are spread in Ciamis Regency, Tasikmalaya Regency, and Cianjur Regency, Sukabumi Regency and Subang Regency.

Tasikmalaya regency is one of the districts targeted by iron sand mining businessmen. The amount of iron sand resource potential in Tasikmalaya Regency is quite large, which is about 3,659,390 tons spread in three subdistricts namely Cikalong Subdistrict, Cipatujah Subdistrict and Karangnunggal Subdistrict. Iron sand mining in Tasikmalaya Regency began in 2004 starting with the exploration stage which until now generally has been done. Iron sand mining in Tasikmalaya regency is done openly by digging the soil surface, taking the minerals and left open. Sites considered having the potential of iron sands continue to be dug and carried out mining regardless of land cover. Rice fields and plantation land for the livelihood of the residents were mined without regard to reclamation.

The existence of iron sands makes many companies interested to develop those iron sands but in the middle of its existence is actually becoming controversy in the community, is about the impact on the surrounding environment. The impact of sand mining has positive impacts and negative impacts on the environment, the positive impacts is can increase the income of local communities and creating jobs, while the negative impact is increased air pollution, and damage to roads and river. The actors that involved in this project are the government as the licensor of this project, the companies as the implementer of this project, and society as the people who lived in the area of

sand mining project and will get the direct impact of the project. The three actors that are involved in this sand mining project should give their effort to manage the environment, especially the companies as the implementer. The companies should know about the legal aspect of environmental pollution that caused by sand mining project.

The former mine land will certainly experience significant land degradation and environmental impacts after exploitation such as changing the landscape both topography and life above it. Cikalong sub-district is one of the sub-districts in Tasikmalaya Regency that suffered land damage after iron sand mining. Damage land with damaged and much damaged category occurred in Mandalajaya village with 89.366 m2 of former mining area. Environmental damage due to iron sand mining will jeopardize human existence and comfort. According to Alaudin (2013, p.3) "mining activities if not properly managed can cause overall environmental damage in the form of soil, water and air pollution". This can be seen with the loss of soil protection function, loss of biodiversity, degradation of watersheds, changes in landforms, and the release of heavy metals that can enter waters resulting in disruption of other environmental functions.

According to Rita Setiawati as Head of Marine Affairs, Department of Animal Husbandry, Fishery and Marine of Tasikmalaya Regency that illegally and unmanned iron sand mining at some point of South coast of Tasikmalaya Regency, West Java, threaten coral reef damage. "The excavation of iron sand on the beach seems to have an effect on the surrounding coral reefs" she said.

Rita deserves to be worried because in her opinion South Coast of Tasikmalaya Regency which has length 52,5 km, has been damaged coral reef by 15 percent. One of its effects with the existence of iron sand exploration will affect the damage to coral reefs where fish live. The existence of the sea and beach, is expected to be preserved like keeping home yard with care to look clean and beautiful and always keep the environment (Pikiran Rakyat Newspaper, 2011).

The total amount of natural damage caused by iron sand mining reaches 2,250 hectares of approximately 15 thousand hectares of mining area. "For the excavation alone the depth between 40-50 meters, resulting in southern infrastructure is also destroyed. The extent of natural damage due to iron sand mining approximately 15 percent of 15 thousand hectares," said Muhammad Haendra, Activists Opponents of Iron Sand Mining, Tuesday (5/11/2013). The negative impacts of iron sand mining are the destruction of forest and coastal ecosystems, the environment, coastal landscapes, to road damage and social conflict in communities (*https://daerah.sindonews.com* accessed on 15 March 2018).

In addition to causing environmental impacts, sand mining activities also cause social and economic impacts. Some elements of the societies strongly reject and request the suspension of iron sand mining activities along the southern coast around Cipatujah and Cikalong, because the negative impacts are disadvantageous to the ecosystem and the coastal environment and road infrastructure which through by the trucks carry. While the businessmen and

the other societies conduct a demonstration to the government for continuing the mining activities. Societies who become mining workers will lose their livelihoods when sand mining activities are closed. This makes conflicts between fellow citizens in the mining area. The result of iron sand mining is a monthly average of 500,000 tons with the value of 2 trillion rupiah so that in a year to reach 24-37 trillion. This is of course quite beneficial for some people who become laborers in sand mining activities (*https://www.kompas.com* accessed on 15 Marc 2018).

Tasikmalaya Regency now faces several problems related to the implementation of iron sand mining. First in the social field there is a conflict between the community itself, between the pros and cons. Secondly, the environment along the coast is now severely damaged and endangering the surrounding area and the people who live there. Third, the damage to road infrastructure through which iron trucks carrying hundreds of passes each day will also cause air pollution from the transporting dust. In this paper, the writer tries to write about "Social, Economy and Environmental Assessment of Sand Mining in South Coast Cikalong Subdistrict, Tasikmalaya Regency, West Java Year 2015-2016".

1.2 Research Question

1. What are social, economy and environmental assessment of iron sand mining in South Coast Cikalong Subdistrict, Tasikmalaya Regency, West Java Year 2015-2016?

1.3 Objectives of The Research

1. To analyze what are the social, economy and environmental assessment of iron sand mining in South Coast Cikalong Subdistrict, Tasikmalaya Regency, West Java Year 2015-2016
2. To find out the solution of social, economy and environmental assessment of iron sand mining in South Coast Cikalong Subdistrict, Tasikmalaya Regency, West Java Year 2015-2016

1.4 Benefits of The Research

1. To provide input for the government and societies in managing the mining activity and minimalize its damage
2. To develop the thinking ability of the author through scientific papers and as the implementation of the various theories which have been learned during lectures
3. To provide an additional reference for the Department of Government Science Faculty of Social and Political Science in University of

Muhammadiyah Yogyakarta and as an application of the theory of political representation

1.5 Literature review

No	Title	Author	Research Result
1.	The conflict of iron sand mining in Wogalih Village, Yosowilangun Sub-district, Lumajang Regency 2010-2011	ST Risalatul Ma'rifah, Nawiyanto, Ratna Endang W	Plan to revive iron sand mining in Wogalih village triggered conflict in the community. Conflict involves groups of pros and cons of mining. The counter-party views mining activities economically and does not bring much prosperity to the local community. Even mining activities are seen to pose a threat to their existence as it raises disaster risks and environmental damage. Pro parties use economic arguments to support their position. Mining activities are considered to be a blessing for the company, government, and society. Procontra in reactivation of mining raises demonstrations and divisions within society. Several times the anti-mining parties had demonstrations and hearings to the central government to convey their aspirations. Anti-mining parties view the government as less wise in responding to plans to re-activate the iron sand mining business. They want the revocation of the exploitation permit granted to PT Antam due to various negative impacts that have been and will be generated by the return of the mining business.

2.	Traditionally beach sand mining externalities on mangrove ecosystem and socioeconomic coastal communities in Merauke	Muhammad Hatta Arisandi, Suriani Br. Surbakti and Nurhasanah	Coastal sand mining activities caused damage to mangrove forests along the coastal areas of Merauke District. Communities have a negative perception of coastal sand mining activities, people already know that by mining the sand beach will cause damage to the mangrove ecosystem. However, due to economic demands, the community keeps doing sand beach mining activities. Sand mining activities have an impact on the decrease of catch and income of fishermen. Negative externality resulting from coastal sand mining activities is much greater with potential losses can reach Rp.128.109.000.000 when compared with positive externalities only potentially generate Rp. 25.904.201.428.
3.	The impact of iron sand mining plan on the social condition of coastal farmers in Banaran Village, Galur District, Kulon Progo Regency	Fahmi Isabirin and Suparmini	75.76 percent of the population of Banaran village approve the existence of iron sand mining in Banaran Village because it can create new jobs so that their welfare level will increase. While 24.24 percent of the population disagreed because they were afraid that the iron sand mining plan would displace their farms, so that the population would lose their main livelihood. Iron sand mining plan does not affect the frequency of social activities of Banaran Village community. Even according to 21.21 percent of respondents admitted that the frequency of social activities getting better because of the iron sand plan can damage the harmony of life of the citizens,

			so the frequency of social activities is improved. Respondents who claimed the frequency of reduced social activity generally reasoned that people are afraid to follow social activities held for fear of being labeled as opposed to the surrounding community. The existence of iron sand mining plan does not reduce harmony among residents in Banaran Village. This means horizontal conflicts are feared did not happen.

My research focuses on the social, economic and environmental impacts of iron sand mining on the coast of Cikalong Sub-district, Tasikmalaya Regency, West Java. The difference of my research with previous research is in handling the impact of iron sand mining. The solution for handling these impacts is by advancing the agro-tourism sector in the Cikalong Sub-district. Cikalong Sub-district has several beaches which if managed better will become the attraction for tourists. Advancing the agro-tourism sector is more environmentally friendly than exploiting excess the iron sand.

1.6 Theoretical Framework

1.6.1 Theory of Impacts

Definition of impact according to the Big Indonesian Dictionary is a clash, an influence that has both positive and negative effects. Influence is the power that exists and arises from something (people, objects) that come to form a person's character, belief or deeds. Influence is a state where there is a reciprocal relationship or causal relationship between what affects and what is affected. (KBBI Online, 2017)

Simple impacts can be interpreted as influences or effects. In every decision taken by a boss usually has its own impact, both positive and negative impacts. Impact can also be an advanced process of an internal control implementation. A reliable leader should be able to predict the kind of impact that will occur on a decision to be taken.

From the above description we can divide the impact into two senses namely;

1. Definition of Positive Impact

   Impact is the desire to persuade, convince, influence or imply others, in order for them to follow or support their desires. While the positive is definite or assertive and real from a mind especially pay attention to the good things. Positive is the atmosphere of the soul that prioritizes creative activity

rather than dull activity, the joy of sadness, optimism rather than pessimism.

Positive is the state of a person's soul that is maintained through conscious efforts when something happens to itself so as not to deflect one's mental focus on the negative. For a positive-minded person to know that he or she is already thinking badly, he will immediately recover. So, it can be concluded the notion of positive impact is the desire to persuade, convince, influence or give the impression to others, in order for them to follow or support their good wishes.

2. Definition of Negative Impacts

In the Indonesian dictionary the negative impact is a strong influence that has negative consequences. Impact is the desire to persuade, convince, influence or imply others, in order for them to follow or support their desires. Based on some scientific research concluded that the negative is a greater bad influence compared with the positive impact.

So, it can be concluded the notion of negative impact is the desire to persuade, convince, influence or give the impression to others, with the aim that they follow or support his bad desire and cause certain consequences.

The theory of impacts also related to the Environmental Impact Assessment (AMDAL). AMDAL consist of social impact, economical impact and social impacts. Understanding Environmental Impact Analysis, The Environmental Impact Assessment (AMDAL) is a study of the major and significant impacts of a planned business and / or activity on the environment necessary for decision-making processes concerning the conduct of business and / or activities in Indonesia. This AMDAL is made when planning a project that is expected to have an impact on the surrounding environment.

The AMDAL was first introduced in 1969 in the United States. According to Law no. 23 of 1997 on environmental management and Government Regulation no 27/1999 on Environmental Impact Analysis. If Indonesia has an Environmental Impact Assessment (AMDAL) to be created if one wants to establish a project that is expected to have a major and significant impact on the environment. AMDAL is a study of the major and significant impacts of a planned business and / or activity on the environment required for the decision-making process on the conduct of business and/or activities.

The basis of EIA law is Government Regulation no. 27 of 2012 on 'Environmental Permit'. AMDAL itself is a study of

the positive and negative impacts of an action plan or project, which the government uses in deciding whether an activity or project is feasible or not environmentally feasible. The study of positive and negative impacts is usually prepared by considering the physical, chemical, biological, socio-economic, socio-cultural and public health aspects.

1.6.1.1 Social impact

Social impact analysis is a study conducted on the social, economic, and cultural conditions of society as a result of the implementation of a development activity in a region or area. The study was conducted to examine and analyze the various impacts that occurred both positively and negatively from each stage of the activity from the pre-construction stage, construction, until the operation phase.

Social impact also related to the social changes. Accoding to Selo Soemardjan social change is any change in the various institutions of society in a social environment that affects the social system, including social values, attitudes, patterns of behavior between groups in society. Its mean the social impacts will causing the social changes.

Conflict Theory explains that social change can take the form of conflict. Conflict stems from class disagreements

between ruling groups and groups of oppressed peoples resulting in social change that alters the social system.

In the Theory of Conflict, influential figures are Karl Marx and Ralf Dahrendort. According to Karl Marx, social conflict is the most important and most influential source of all social change. According to Ralf Dahrendorf, any social change is the result of conflict within the class of society.

1.6.1.2 Economic impact

The term economic itself comes from the Greek word "oikos" which means family or household and "nomos" that is rule or rule of law. So, the economic outline is defined as household rules or household management. In a large Indonesian dictionary economy means the science of the principles of production, distribution and use of goods and property (such as finance, industry and commerce) (KBBI, 1996: 251). Human resource economics is a science applied to analyze the formation and utilization of human resources related to economic development (Mulyadi 2003: 1)

The socioeconomic condition is a socially arranged position and place a person in a certain position in society, the positioning is accompanied by a set and obligations that must

be played by the bearer of status (Sumardi, 2001: 21 in Basrowi and Juwariyah, 2010)

Socio-economic conditions according to M. Sastropradja, (2006) in Basrowi and Juwariyah (2010) is the state or position of a person in the community around him. Manaso Malo (2001) also provides a limitation on socioeconomic conditions, which is a socially arranged position and puts a person in a certain position in the social community. Giving a position is accompanied also by a set of rights and duties that must be played by the bearer of status.

The socio-economic conditions of the community are characterized by the recognition of knowing each other, the community, the nature of mutual cooperation and kinship. Regarding socio-economic conditions, Yayuk Yulianti cited Zaenal Arifin (2002) in Basrowi and Juwariyah (2010) describes the socio-economic conditions as a link between social status and daily living habits that have been entrenched for individuals and groups in which the habit of living is entrenched is usually called culture activity, then he also explains that all societies in the world both simple and complex, patterns of interaction or association of life between individuals point to differences in status and degree or status

criteria in differentiating status in small communities is usually very simple.

Socio-economic is anything related to the fulfillment of the needs of society, such as clothing, food, housing, education, health and others. Fulfilling those needs is related to income. While socioeconomic conditions are a condition or position that is set socially and set a person in a certain position in the social structure of society. Giving this position is given with a set of rights and obligations that must be met by the bearer of status (Koentjaraningrat, 1990).

1.6.1.3 Environmental assessment

Understanding the environment according to Otto Soemarwoto is the sum of all objects and circumstances contained within the space in place where affect our lives. Theoretically, the space is infinite in number, but practically in that space is always given the limit according to the needs that can be determined, such as: river, sea, cliff, political factor or other factors. So, the environment must be broadly defined, not only for biological and physical environments but also for the cultural environment, social environment and economic environment.

Environmental Impact is the effect of changes on the environment caused by a business and / or activity. (Article 1 Number 20 of Law Number 23 Year 1997 on Environmental Management).

Environmental Impact is the effect of changes in the environment caused by a business and / or activity. (Article 1 Number 26 of Law Number 32 Year 2009 on Environmental Protection and Management).

An environmental impact analysis emerged in response to concerns about the negative impacts of human activities, particularly environmental pollution caused by industrial activities in the 1960s. Since then AMDAL has become a major tool for carrying out clean environmental management activities and is always attached to sustainable development goals.

An activity plan can be declared not environmentally feasible, if based on the results of an AMDAL study, the negative impacts that its impact cannot be overcome by available technology. Likewise, if the costs necessary to combat the negative impacts are greater than the positive impacts that will be generated, then the activity plan is deemed unsuitable for the environment. An activity plan that is decided not environmentally feasible cannot continue its development.

This AMDAL compulsory criterion is only required for projects that have significant environmental impacts that are commonly found in large-scale, complex, and well-located locations in areas with sensitive environments.

1.6.2 Mining and iron sand mining theory

According to Law No. 4 of 2009 concerning mineral and coal mining, Mining is part or all of the phases of activities in the context of research, management and exploitation of minerals or coal covering general investigation, exploration, feasibility study, construction, mining, processing and refining, transportation and Sales, and post-mining activities. While mining itself is part of mining business activities to produce minerals and / or coal and its associated minerals. This means mining is part of mining in a broad concept.

Adrian Sutedi (2012: 43) Mining has several characteristics, which are non-renewable, have higher relative risks, and their impact has a relatively higher physical and social environmental impact than other commodities in general. This means that every mining process always has two opposite sides, namely as a source of prosperity as well as environmentally destructive potential. As a source of prosperity, there is no doubt that this sector has supported state revenues for years. As an environmental destroyer, open pit

mining can change the total climate and soil as all layers of soil above the mineral deposits are removed. In addition, to acquire or release mine seeds from rocks or sand as in sand mining in rivers, miners generally use hazardous chemicals that can contaminate soil, water or rivers and the environment.

The sand soil is ground with large particles. This soil is formed from igneous rocks and sedimentary rocks that have large grains and coarse or often referred to as gravel. Sand soil has a low water fiber capacity because they are mostly composed of particles of 0.02 to 2 mm in size. The sand soils have not generally formed aggregate so it is sensitive to erosion. The elements contained in the sand soil are the elements of P and K are still fresh and not ready to be absorbed by plants. In addition, there are also elements of N in very little content. The land of sand is a land that is spread quite a lot in the territory of Indonesia. Broadly speaking the soil of sand is divided into 3, namely:

1. The soil of volcanic ash sand. This sand ground is located in areas of volcanic fan that is volcanic lava flowing down with the form widened like a fan
2. Sand hill or sand land is usually present in coastal areas
3. Sedimentary rocks with hilltop topography

Generally, iron sand is composed of opaque minerals mixed with granules of nonmetallic minerals such as, quartz, calcite, feldspar, ampibol, pyroxene, biotite, and tourmaline. The minerals consist of magnetite, titaniferous magnetite, ilmenite, limonite, and hematite. Titaniferous magnetite is an important part is a change of magnetite and ilmenite. Iron ore iron is mainly derived from basaltic and volcanic andesitic rocks. Usefulness of this iron sand in addition to the iron industry has also been widely used in the cement industry.

In the National Encyclopedia of Indonesia mentioned that iron sand is lateritic ores with the basic content of iron oxide minerals. Iron sand usually contains also some other metal oxide minerals, such as vanadium, titanium, and chromium, in small quantities. Sand containing iron ore is a mineral excavation material containing iron, which can be used economically as raw material manufacture of metal or steel iron. The main requirement that must be met is iron content must be more than 51.5 percent.

In the Mining Law No.4 Year 2009 Article 1 mining is defined as a part or all of the phases of activities in the framework of research, management and exploitation of minerals or coal covering general investigation, exploration, feasibility study, construction, mining, processing and refining, transportation and Sales, and post mining activities.

1.7 Conceptual Definition

To avoid mistakes and misunderstandings of the discussion, the author will give some concepts that aim to explain from some of the terms used in this study. The term used in this study is:

1) Impact

In general impacts can be interpreted as influences or effects. In every decision taken by a boss usually has its own impact, both positive and negative impacts. Impact can also be an advanced process of an internal control implementation. A reliable leader should be able to predict the kind of impact that will occur on a decision to be taken. From the above description then we can divide the impact into two, which is positive impact and negative impact.

The social impact related to social changes. If the situation between societies changes, it will affect to their social impacts.

a) Social Impact

Social impact is a change that occurs in humans and society caused by development activities. Social impacts arise when there is a program project activity or policy applied to a society for this intervention to affect balance in

a community system, the effect can be positive or negative

b) Economic Impact

Economic impact is something that is related to the fulfillment of the needs and ability of a person to be able to put themselves in the environment. So, it can determine the attitude based on what it has and the ability to successfully run the business and successfully meet the needs of his life. Through economic development, the implementation of economic activities will run more smoothly and able to accelerate the process of economic growth. The existence of economic development is possible the creation of jobs needed by the community, so that will reduce unemployment. The creation of jobs from economic development directly improves the level of national income.

c) Environmental Assessment

Environmental impacts of environmental changes caused by an activity. The quality of the environment is an environmental condition that is able to optimally support the survival of

the organism, especially humans in a place. Sand mining activities can affect environmental conditions and quality. This is due to the taking and utilization of resources with technology or industrialization can reduce the quality of the environment, because it produces a waste.

1.8 Operational Definition

Indicators that guidance the social, economy and environmental impact of iron sand mining are its impact. The impacts of mining are: ecosystem damage, soil damage, pollution and water sedimentation, air pollution and climate change. In an effort to preserve and sustain the future development, it is necessary to know early on the benchmark of environmental damage, so that later more severe environmental damage can be minimized, by identifying the environmental damage indicator as a result of such openly mining.

1. Indicator of Social Impact
    a) Social life changes including social value, attitudes, patterns of behavior between group in society
    b) Respond of Societies Around the Mining Area

2. Indicator of Economic Impact

Impact is any change that occurs in the environment due to human activities. The impact of a development project on socio-economic aspects, especially for developing countries is found in the following components which are defined as socio-economic indicators, among others:

a. Employment
b. Increased societies income including fulfillment the needs of society
c. The development of economic structure, namely the emergence of other economic activities due to the project such as shops, stalls, restaurants, transportation and others

3. Indicator of Environmental Assessment

The environment is everything that is around humans and forms a complex system on earth and affects the growth of organisms. Here's are the indicator of environmental damage:

a. Impact on the mainland
b. Impact on the water
c. Impact on the air

1.9 Research Methodology

According to Rosdy Ruslan (Ubay, 2016) describes the method as a scientific activity related to the workings in understanding a subject or object of research in an effort to find answers scientifically & legitimately from something studied. The research method provides guidance for researchers about how research is conducted. The method used is the qualitative method, descriptive research in particular by describing how a thing happens or expose existing data. The data collected is then analyzed through a qualitative approach, which is subsequently adjusted to concepts known in governmental sciences. Therefore, it can be eventually deduced from the existing problems.

According to Denzin and Lincoln, qualitative research is a research using natural background, with the intention of interpreting phenomena and carried by road involving a variety of methods. In terms of this understanding, the authors still question the natural background in intention that the results can be used to interpret phenomena. It can be also used for qualitative research as a wide variety of research methods. In qualitative research, methods typically utilized were interview, observation, and utilization of documents

1.9.1 Type of research

The qualitative research design format consists of three models, namely descriptive format, verification format, and grounded research format. This research uses qualitative descriptive research method with case study approach, which is a detail against a background or one subject or a document storage or event in this research.

According to Agung Prasetyo, Qualitative descriptive research is one of the types of research included in this type of qualitative research. The purpose of this study is to reveal the events or facts, circumstances, phenomena, variables and circumstances that occur when research takes place by presenting what really happened. This study interprets and describes the data concerned with the current situation, attitudes and views that occur within a society, the contradiction between two or more circumstances, the relationship between variables that arise, differences between existing facts and their effects on a condition, etc.

Understanding Descriptive Qualitative is a research procedure that uses descriptive data in the form of words written or spoken from the people and perpetrators that can be observed (Fanani, 2011). In this case the author seeks to analyze the social, economy and environmental impacts that occur in the sand

mining area in Cikalong Subdistrict, Tasikmalaya regency, West Java.

1.9.2 Research location

The research location in this research is the South coastal Cikalong Subdistrict, Tasikmalaya Regency, West Java. This choice of location is primarily based on the presence of the problems that are occurring at that location, but also for technical reasons such as time, cost and author access.

1.9.3 Type of data

In addition to that in this qualitative research, the authors use primary data and to support the validity of data from research then used also supporting data or secondary data. Here's the explanation:

a. Primary data

Understanding the primary data by Umi Narimawati (2008: 98) in his book "Qualitative and Quantitative Research Methodology: Theory and Applications" that: "Primary data is data originating from the original or first source. This data is not available in compiled form or in the form of files. This data should be searched through sources or in terms of technical respondents,

which is the people that become an or the people that become an informant. Primary data is data obtained directly from respondents to obtain information and information related to the object of research. The respondent is:

1) Societies
    a) Mr. Ateng and Mrs. Item (Society that affected by social impact)
    b) Mr. Dani and Mrs. Yuni (Society that affected by economic impact)
    c) Mr. Iman and Mrs. Ai (Society that affected by environmental impact)
2) The local government
    a) Mr. Hami and Mr. Atep from Environmental Office of Tasikmalaya Regency

b. Secondary Data

Secondary data is data that refers to information collected from existing sources. Secondary data sources are company records or documentation, government publications, industry analysis by media, Web sites, internet and so on (Uma Sekaran, 2011). The researcher

using relevant material obtained from Books, Literature and other Legislation or Documentation.

1.9.4 Data collection methods

According Sugiyono (2013: 224) data collection techniques is the most strategic step in the research, because the main purpose of research is to get the data. In this case, the researcher decided for using the interview techniques.

According to Esterberg in Sugiyono (2013: 231) interview techniques are two people meeting to exchange information and ideas through question and answer, so that can be constructed meaning in a certain topic.

In this case, the researcher interviewing the societies which is affected by the social, economic and environmental impact of iron sand mining in Cikalong Sub-district, Tasikmalaya Regency, West Java. The researcher also interviewing the government as a respondent, which is from the environmental office of Tasikmalaya Regency. For completing the data, the researcher also using the document, literature, journal, books and any other instrument that related to the problems.

1.9.5 Data Analyses Techniques

Data analysis technique used in this research is interactive analysis. This model has 4 components of analysis that is: data collection, data reduction, data presentation, and conclusion. According Moleong (2004: 280-281), "Data analysis is the process of organizing and sorting data into patterns, categories, and units of basic descriptions so that can be found the theme and place formulated hypotheses work as suggested by the data".

The steps of data analysis according to Miles and Huberman (1992: 15-19), are as follows:

1) Data collection, which is collecting data in the research location by doing interview by determining data collection strategy that is considered appropriate and to determine the focus and deepening of data in the next data collection process. The researcher doing the direct interview to the societies and the government to get the data.
2) Data reduction, here as the selection, focusing, abstraction, transformation of rough data in the immediate field, and forwarded at the time of data collection, thereby reducing the data started since the researcher focused the research area. The researcher doing a data reduction by listening the voice recording

during the interview process and copied become a script.

3) Presentation of data, namely the set of information organization that allows research conducted. Presentation of data obtained by various types, networks, activities or tables. After doing a data reduction, the researcher rewrites the script become a research data.
4) The conclusions, namely in data collection, researchers must understand and responsive to something studied directly in the field by preparing the patterns of direction and causation. The researcher concludes the data into the paper for completing the research.

1.10 Systematics of writing

The systematic of writing and an understanding, the researcher make a systematic writing as follows:

CHAPTER I, Introduction, consist of: background, research question, objectives of the research, benefit of the research, literature review, theoretical framework, conceptual definition, operational definition, research methodology and systematics of writing.

CHAPTER II, Description of Cikalong Subdistrict, Tasikmalaya regency, West Java, consist of: boundary, location and population, physical conditions and its potential.

CHAPTER III, Results, and Discussion, this chapter will discuss the impact of iron sand mining in term of social impact, economy impact and environmental impact and also will discuss about prevention of these impacts.

CHAPTER IV, Conclusion, consists of, the conclusions of the research, recommendations, and literature of the sand mining impacts.