

PUBLIC'S OPPORTUNITY IN SUSTAINABLE DEVELOPMENT PLANS AROUND THE MINING ACTIVITIES IN ACEH

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ABSTRACT

Aceh Province is producing oil, gas, and coal to fulfill the energy consumption in Indonesia. People who lived around the mining activities are categorized as low to medium economic level. The companies implemented Corporate Social Responsibility (CSR) but it was not enough. They must have some plans to improve the quality of life to realize the sustainable development goals around the mining area. This research was prepared using the literature method. This research aims to give hope these plans can realize the sustainable development goals around the mining area in Aceh, then can be an example to show the good economic impact of oil-gas and coal mining on people around the mining area. There are ten plans in this research and can realize with government and company support: rent houses, coffee shops, minimarkets, foods markets, courses, handicrafts and souvenir shops, car wash (called 'doorsmeer' in Aceh), plantation and hydroponic tourism, massage services, midwife (nurse) and hospital.

Keywords: Economic impact of mining, Mining in Aceh, Sustainable development.

1 INTRODUCTION

Oil-gas and coal are Indonesia's biggest of energy. Oil-gas is the biggest domestic energy consumption in 2020 is 41,73%. In the third quarter of 2021, it was up to 3,19% in the same period in 2020. Coal is the second rank, as total domestic coal consumption is 30,84% [1]. Based on this fact, fossil energy sources still dominate Indonesia's energy needs.

Aceh is one of the areas in Indonesia that has oil and gas resources on land (onshore) and at sea (offshore), and coal resources which are currently exploiting. Oil, gas, and coal are the raw materials for the industrial market.

Mining activities in Aceh implement cooperation with national and international companies. This cooperation must comply with the Indonesia Mining Regulation and Qanun (Aceh's regional regulation). So that mining activities use a 3-Level Strengthening Strategy, which is the strategy at International Level, National Level (Constitution, Regulation, Legislation, Cooperative Contract), and Regional Local Level (e.g. Regional Regulations, Qanun) [2].

Not only companies and the government, benefits derived from the wealth of oil, gas, and coal resources should also be felt by the people who live near oil, gas, and coal mining activities. But in real life, people around the mining area are included in the category of a weak economic level.

2 METHODOLOGY

This research used a literature approach by collecting papers about sustainable development goals around mining activities. It was analyzed by a qualitative descriptive method.

The sustainable development plans of areas around mining activities in Aceh Province were the activities that can be done by the communities around mining activities and supported by natural resources, human resources, and daily necessities. Oil, gas, and coal resources which support the country's life should be able to provide prosperity for the people where these resources originated.

3 RESULTS AND DISCUSSIONS

3.1 Mining Job Sites in Aceh

"Aceh is a province which is a legal community unit, that is special and given special authority to regulate and manage its governmental

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affairs and the interests of the local community by the laws and regulations in the system and principles of the Unitary State of the Republic of Indonesia based on the UUD 1945, led by a governor” (Qanun No. 15/2017 Article 1:2).

Oil and gas mining activities in Aceh currently consist of two stages of activity, namely exploration and exploitation. The oil and gas exploration work areas are in the Andaman III (Andaman Sea) and South Block A (East Aceh-Aceh Tamiang-Langsa). The exploitation stage work areas are in the Pase job site, Lhokseumawe, Block A (East Aceh near the Malacca Strait), and Block B (Arun and Lhoksukon Land Fields) [3].

Coal mining activities in Aceh are in the mining process, with total coal resources of 1.5 billion metric tons and measured reserves of 500 million metric tons. Coal in Aceh is scattered in West Aceh, Nagan Raya, and Aceh Singkil [1].

3.2 Economic Conditions in Around the Mining Activities

The regions in Indonesia with abundant fossil natural resources, like Aceh, have been unable to prosper the people. It is ironic when people see that their economic level is under the other regions without fossil resources, like big cities in this country. They are not more famous than the capital cities. Even fossil resource areas are still classified as underdeveloped, traditional, and inadequate facilities and infrastructure.

3.3 Sustainability Development Plans for the Area Around Mining Activities

The Sustainable Development Goals (SDGs) are a set of UN proposals with The Paris Agreement introduced to the world in March 2015. SDGs are world goals in seventeen goal points and one hundred and sixty-nine targets. Until now, the SDGs are still being campaigned for and invite all people in the world to develop new ideas to achieve one or all goals of the SDGs [4].

Previously a program called the Millennium Development Goals (MDGs) was successfully implemented in 2000-2015. This program has been created as an expression of concern for poverty, hunger, disease, education, gender equality, and environmental degradation. The world report states that many countries have succeeded in reducing these constraints

quantitatively. But fifteen years is not enough to produce results qualitatively [5].

There are ten opportunities that can be carried out by the people of Aceh around oil, gas, and coal mining activities to achieve the SDGs goals:

a. Rent houses.

Rent house is used as a place to live for apprentice or final project students at oil and gas or coal companies, or for the families of company employees who come from outside. Home rental promotions will be more profitable online.

b. Coffee shops.

Coffee shops will visit a lot of people. Aceh is also known as the best coffee area in Indonesia.

c. Minimarkets.

Stocking up on daily needs will make it easier for employees, apprentices, and even the local community to shop. This shop can later fill with bathing and washing needs, stationery, cutlery, clothing, household cleaning equipment, electronic devices, make-up equipment, and cell phone credit or internet quota.

d. Food markets.

Shops supplying food will need food stalls, even company kitchens. This shop can fill with food, complementary spices, gas cylinders, drinking water, and snacks.

e. Courses.

The existence of educational facilities will encourage a better life in the area. It also does not rule out the possibility of transmigration. Many innovations can be made by places of education outside of this school, both in terms of educational services, facilities, and even the uniqueness of the learning system.

f. Handicrafts and souvenir shops.

Handicrafts and souvenirs close at hand from the company will make travel time management easier for employees on leave. It may even be of interest to migrants or apprentice students who stop in the area around mining.

g. Car wash ('doorsmeer').

A car wash in Aceh is called a doorsmeer. Opening a car wash service is also urgently needed, be it for public vehicles, passing tourist vehicles, or light vehicles.

h. Plantation and hydroponic tourism.

Communities can work together in hydroponic development. If feasible, the results can use for regional hydroponic tourism. This plan can increase the income of the people and help the Regional Government to advance the mining area.

i. Massage services.

Reflexology relaxation is a good service for company employees and the public.

j. Midwife (nurse) and hospital.

Health is also a need for all living things. Midwives will be the fastest access to medical treatment, considering that mining locations are usually far from hospitals and other public facilities. A Maternity hospital is also needed.

Sustainable Development Goals (SDGs) and the Paris Agreement call on the world to act together as a public world to have a common understanding of the operational SDGs [6]. Thus, it is necessary to have harmony and success tasks for the elements of regional development. Six people must be together with the public to do the plans: government, businessmen or company, philanthropy, experts and academics, community organizations, and media.

The ten plans hopefully can achieve: no poverty (SDGs goal no.1), zero hunger (SDGs goal no.2), good health and well-being (SDGs goal no.3), quality education (SDGs goal no.4), decent work and economic growth (SDGs goal no.8), industry-innovation and infrastructure (SDGs goal no.9), reduce inequality (SDGs goal no.10), responsible consumption and production (SDGs goal no.12), and partnership for the goals (SDGs goal no.17).

4 CONCLUSIONS

1. There are ten opportunities for the people of Aceh around oil, gas, and coal mining activities to achieve the SDGs goals: rent houses, coffee shops, minimarkets, foods markets, courses, handicrafts and souvenir shops, car wash (doorsmeer), plantation and hydroponic tourism, massage services, midwife (nurse) and hospital.
2. There are seven elements can help to realize the SDGs around the mining activities: public, government, businessmen or companies, philanthropy, experts and academics, community organizations, and media

REFERENCES

- [1] KESDM. 2020. "Handbook of Energy and Economic of Indonesia," Dirjen Minerba, Jakarta.
- [2] Husna. C. A. 2018. "Strategy of Strengthen Management of Oil and Gas in the Sea," *Jurnal Konstitusi*, vol. 15, no. 1.
- [3] BPMA.2021. "Badan Pengelolaan Migas Aceh Profile," [Online]. Available: www.bpma.go.id. [Accessed 18 12 2021].
- [4] Hak Tomas, Janouskova S, Moldan B. 2016. "Sustainable Development Goals: A need for relevant indicators," *Ecological Indicators*, vol. 60, pp. 565-573.
- [5] Sachs. JD. 2012. "From Millennium Development Goals to Sustainable Development Goals," *The Lancet*, vol. 379, no. 9832, pp. 2206-2211.
- [6] Sachs JD, Schmidt-Traub G, Mazzucato M, Messner D, Nakicenovic N, Rockstrom J. 2019. "Six Transformations to achieve the Sustainable Development Goals," *Nature Sustainability*, vol. 2, pp. 805-814.