Gold PROPER; Business World Concern upon Environmental Aspect: Case Study CSRPT Pertamina EP Asset 3 Subang Field

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Abstracts. A proper environmental management is necessary to prevent and reduce environmental impact caused by industry activity. PROPER is an environmental management instrument that can be applied by companies to assess the company's performance in environmental management. PT Pertamina EP has received the highest PROPER award, Gold PROPER for three years in a row from 2015 until 2018. Corporate Social Responsibility (CSR) program of PT Pertamina EP at Asset 3 Subang Field encourages its own company not only to improve environmental quality but also to improve the quality of community welfare around the company through integrated environmental programs along with social and economic programs. This research objective is to analyze the implementation of the company's CSR programs in an effort to obtain the highest award in the field of environmental management performance that is Gold PROPER. This study used a descriptive qualitative method with a case study at PT Pertamina EP Asset 3 Subang Field. The data collected through primary and secondary data with participatory data collection techniques, interviews, and reviews through related documents and literatures. The results showed that the implementation of the CSR program of PT Pertamina EP Asset 3 Subang Field provide positive benefits in accordance to the people needs starting from socially by increasing social interaction, economically by increasing villagers wage, environmentally by reducing farm waste by reusing it, and educational aspects by decreasing illiterate rates in the villages.

Keywords: Corporate Social Responsibility, environmental performance, environmental management, community welfare, PROPER

1. Introduction

1.1. Background
The growth and development of industrial activities in Indonesia increased along with the increase in the population of Indonesia. Based on the results of the 2016 economic census by the Central Statistics Agency (BPS), the number of companies operating in Indonesia is 26.71 million. Industrial activities contribute positively to the rate of economic growth in the country of Indonesia through increasing the pace of labor force growth and export value [1]. However, Yudo [2] stated that industrial activities also had a negative impact on the environment in the form of waste from production activities. Therefore, companies are mandated to implement environmental management.

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The Ministry of Environment and Forestry (KLHK) has developed a program for monitoring and providing incentives for companies that carry out environmental management. The program is called the Company Performance Rating Program in Environmental Management (PROPER). PROPER is a company environmental management performance appraisal program by KLHK. The company’s environmental performance assessment is assessed based on the implementation of AMDAL / UKL-UPL, compliance with waste quality standards, implementation of the Environmental Management System (SML), and implementation of Corporate Social Responsibility (CSR). In the future, the implementation of the Life Cycle Assessment (LCA) is planned to be included in the PROPER assessment criteria [3]. PROPER ratings are distinguished by colors respectively from the best-worst: Gold, Green, Blue, Red, and Black.

As of 2018, 1872 companies have been selected and designated as PROPER participants [4]. As a result, twenty companies received Gold PROPER, 155 companies received Green PROPER, 1454 companies received Blue PROPER, 241 companies received Red PROPER, and two companies received Black PROPER. PT. Pertamina EP Asset 3 Subang Field is one of the companies that gets the highest PROPER rating, namely Gold rank.

To achieve a Gold PROPER rating, PT. PEP Subang implemented a series of CSR programs. The component to achieve Gold PROPER a company should implement conservation of water, energy, and its waste. Furthermore, they should implement Environmental Management System and Community Development. The CSR program is the company’s commitment to carry out social and environmental responsibilities through programs aimed at improving community welfare and environmental preservation [5]. This research was conducted to analyze the concern of the business community in the environmental field through the CSR activities of PT. Pertamina EP Asset 3 Subang Field.

1.2. Objectives
The purpose of this study is to analyze the benefits and evaluate the implementation of CSR activities by PT. Pertamina EP Asset 3 Subang Field.

2. Methodology
The data that we obtained consists of primary data and secondary data. Primary data includes data obtained directly from observation, documentation, and interviews in the field. We interviewed thirty villagers from three villages. Secondary data includes data obtained from company documents and previous research references. Data analysis was performed using qualitative descriptive methods. Qualitative descriptive methods are a method to emphasis by analysis based on the discovery of the object in the study. The study was conducted in Pasir Jaya Village, Pasirukem Village, and Sukamulya Village, Cilamaya District, Karawang Regency for two months in February- March 2019.

3. Result and discussion

3.1. Company Profile
PT Pertamina EP is a company that organizes business activities in the upstream sector of the oil and gas sector including exploration and exploitation. PT Pertamina EP has a motto "Merajut Nusantara, Preserving Indonesia". Exploration activities play an important role in maintaining the level of oil and gas reserves and preventing a decline in production. Pertamina EP Working Area covering an area of 113,613.90 km² that contains most of the oil and gas mining areas of PT Pertamina (Persero).

The management business is operating its operation and cooperation in the form of partnerships, namely four oil and gas development projects, seven area units, and 39 partnership contract areas. The Pertamina EP work area is divided into five assets. The operations of the five assets are divided into 19 fields, namely Rantau, Pangkalan, Susu, Lirik, Jambi and Ramba in Asset 1, Asset 2 consisting of Prabumulih, Pendopo, Limau and Adera. Asset 3 consists of Subang, Jatibarang and Tambun. Asset 4
consists of Cepu and Poleng. Asset 5 consists of Sangatta, Bunyu, Tanjung, Sangasanga, Tarakan and Papua.

3.2. Implementation of the PT Pertamina EP Asset 3 Subang Field CSR Program

PT. PEP Subang has three CSR programs in different villages respectively the CSR Program Community Learning Center (Pusat Kegiatan Belajar Mengajar) Assolahiyah in Pasir Jaya Village, Integrated Sheep Livestock in Pasir Jaya Village, and Merang Mushroom Cultivation in Sukamulya Village. Each three village have different types of programs because the local potential has its own characteristics.

3.2.1. CSR Program in Pasir Jaya Village. Community Learning Center (PKBM) Assolahiyah CSR Program is a community skills education and training program to improve the quality of Human Resources (HR) and living standards of rural communities (figure 1). In essence, Septiani [6] explains that PKBM as an institution has the following tasks and functions: 1) identifying community needs, 2) organizing educational programs, 3) providing potential resources, 4) building cooperation with partners, 5) monitoring and evaluate programs, 6) alternative education, 7) information and learning resources centers, and 8) community development. Before PT. PEP CSR Program begun, PKBM Assolahiyah was established by Pasir Jaya Village in 2008 intended for illiterate rural communities and helpless households.

![Figure 1. PKBM Assolahiyah CSR Program in Pasir Jaya Village](Source: PT Pertamina EP Asset 3 Subang Field)

In the beginning, PKBM Assolahiyah only functioned as a village-level educational institution to solve the illiteracy problem. Then since 2013, PT. Pertamina EP Asset 3 Subang Field organizes CSR through PKBM Assolahiyah by providing a tailor skills training program as well as a convection Business Learning Group (KBU) and food processing activities. There are four main concepts for implementing the PKBM Assistance Program, namely: a) Integration of equality education with life skills, b) Integration with functional literacy programs with life skills, c) development of life skill life skills training programs, and d) Development of training programs for business groups. The total number of beneficiaries of the CSR program in 2016 was 260 people.

In 2015, the Family Economic Empowerment Program (KUPEK) was started under the PKBM Assolahiyah. The KUPEK has 40 people membership. The KUPEK program is divided into several business groups consisting of processed food SMEs, shrimp shrimp processing SMEs, UKM convection, mobile traders, and SMEs processed by mushrooms. The KUPEK program helps SMEs in the field of distribution and marketing, developing product quality, and increasing the number of SME players. The products of the KUPEK program are Popiya (typical Karawang traditional snacks), PAKAR superior rice, mushroom crackers, breadfruit chips, and typical village rengginang.

3.2.2. CSR Program in Pasirukem Village. Livestock, specifically sheep is the potential of Pasirukem Village which has not been fully utilized and developed before (figure 2). Even though livestock is an
alternative media to empower rural communities. One of the advantages of animal husbandry is that livestock activities can be integrated with agricultural businesses [7]. PT. Pertamina EP Asset 3 Subang Field began organizing the Integrated Sheep Livestock program in 2014. The program aims to reduce citizen unemployment and empower poor households (RTM) to reduce village crime rates.

Stages of the program include Awareness and laying the foundation of the empowerment system (2014), Strengthening (2015), Development (2016), Group Independence (2017), and Sustainable Independence (2018). The stages of basic awareness and education began with the construction of cribs, potential awareness training, establishment of livestock business groups, and nursery-fattening businesses. On the strengthening phase, the main objectives are increasing productivity and quality, utilizing livestock waste into organic fertilizer, and integrating livestock with agriculture.

The development continued in 2016 by conducting business diversification with the addition of dairy goat businesses and fresh goat milk products. The following year the product diversification was enhanced with processed goat milk products, dodol-milk product, and instant milk powder. Cooperatives of legal-based farmers also began to be established.

In 2018 the breeder’s group has been directed towards sustainable independence so that there is no need for guidance from PT. Pertamina EP Asset 3 Subang Field in the future. For this reason, an Integrated Center for Animal Husbandry and Agriculture and the Integrated Learning and Livestock Learning Center was formed. Therefore, in 2019 groups of farmers are expected to be able to operating livestock business activities independently.

The implementation of Integrated Sheep Livestock CSR activities also introduced several livestock innovations respectively burger feed, livestock health herbal medicine, and biogas utilization of sheep manure. Burger feed is animal feed derived from the use of agricultural waste to reduce excessive waste so that the Zero Waste Agriculture concept can be achieved [8]. The advantage of burger feed is that it uses 50% more efficient ingredients and can last up to 6 months.

Animal health herbal medicine is an herbal medicine intended for livestock to improve the quality of livestock health, increase animal resistance, and increase livestock appetite [9]. Livestock herbs are made from ginger, galangal, lemon grass, turmeric, kencur, garlic, and brown sugar. The latest innovation is the utilization of biogas from sheep manure. Oktavia and Firmanasyah [10] explained that biogas is an alternative energy to make fire using gas from livestock manure. A by-product of the biogas process is organic fertilizer that issued to improve the quality of agricultural land.

3.2.3. CSR Program in Sukamulya Village. Merang Mushroom Cultivation is a CSR program initiated by PT. Pertamina EP Asset 3 Subang Field which includes efforts to empower the community by developing mushroom cultivation activities from upstream to downstream sector (figure 3). This program has been implemented since 2012. The main objective of this program is to achieve an independent of farmer groups as a mature institution. To achieve the objective, several activities was conducted. The first-year activities were focused on the establishment and strengthening of institutions.

Figure 2. Livestocks CSR Program in Pasirukem Village Source: PT Pertamina EP Asset 3 Subang Field.

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through Sentosa Mushroom groups. The second year was directed at developing mushroom villages as learning centers or study centers on mushroom cultivation.

![Figure 3. Merung Mushroom Cultivation CSR Program in Pasirukem Village Source: PT Pertamina EP Asset 3 Subang Field.](image)

The third year directed at efforts to develop processed products, the fourth year was directed at efforts to strengthen the management of institutions by expanding sales or marketing of products of processed mushroom and processed products. Finally, in the fifth year the program was continued formulating the institution so the community could become independent in the future. Until 2016, various activities have been held, namely training in mushroom cultivation, building model of cribs, training of farmers for mushroom nurseries, providing crib for mushroom nursery, and participatory monitoring.

Some of the innovations of Merang Mushroom cultivation introduced by PT. Pertamina EP Asset 3 Subang Field includes the manufacture of merang mushroom crib and chicken mushroom noodles. Merang Crib model is made of mild steel. Compared to conventional crib, crib made from mild steel is more solid and has the ability to warm up the crib temperature better. Mushroom production in mild steel crib is increased by 36% compared to conventional crib.

### 3.3. Success Story of PT. Pertamina EP Asset 3 Subang Field CSR Program

#### 3.3.1. Pasir Jaya Village

The Desa Pasir Jaya community are the main beneficiary of the PT Pertamina EP Asset 3 Subang Field CSR Program. The villagers felt a significant difference between before and after the PKBM Assolahiyah Program took place in the economic, social and cultural fields. Economically, the average villager income increased compared to before the PKBM Assolahiyah were formed. Employment rate is increased because of the effects of trickle-down economics generated from UKM KUPEK PKBM Assolahiyah. The number of working hours of Pasir Jaya Village has increased because of the many occupation opportunity that can be utilized in PKBM Assolahiyah. Furthermore, the unemployment rate becomes drastically reduced (table 1).

| No | Program                 | 2013 Total | 2014 Total | 2015 Total | 2016 Total |
|----|-------------------------|------------|------------|------------|------------|
| 1  | Literacy Formal Education | 70         | 20         | 40         | 0          |
| 2  | Equality Education Program | 232        | 210        | 111        | 90         |
| 3  | Tailoring Course        | 20         | 10         | 70         | 20         |
| 4  | Kindergarten            | 24         | 26         | 90         | 80         |
| 5  | Terasi Business         | 45         | 70         | 70         | 70         |
|    | **Total**               | **391**    | **336**    | **381**    | **260**    |

Source: PT Pertamina EP Asset 3 Subang Field

Through intensives of training and marketing, the community becomes more aware of the potential of Pasir Jaya Village which can be utilized as a product needed by the market. Karsidi [11] explained
that the existence of trainings containing knowledge of the community began to expand, be open, and responsive to the opportunities around them. Various products have been launched and commercialized become an advantage for the wheels of the village economy. Because they are aware of the village's potential, the community automatically realizes the importance of preserving their ancestral culture unique characteristics.

Social inequality tends to decrease in line with the increase in people's income in Pasir Jaya Village. Socially, socialization among citizens is getting better because of the friendship that occurred during activities in PKBM Assolahiyah.

3.3.2. Pasirukem Village. Before the Integrated Sheep Livestock CSR Program in the Pasirukem Village was conducted, most villagers worked as farmers and farm laborers. At that time there was a social gap between farmers and farm workers due to significant income differences. After the development of integrated sheep, the community began to realize the potential of the large Pasirukem Village farm. Increasing people's income ranges from Rp. 800,000 to Rp. 1,400,000 for each sale of sheep (figure 4).

In addition to utilizing sheep potential, the community began to sale several processed products such as dairy milk, dodol-milk, and instant milk powder. Then from the environmental aspect, the community managed livestock and agricultural waste well and using it to produce burger feed, herbal medicine for livestock, and biogas. Burger feed is a form of straw which is fermented to become a feed that can be stored for six months. Burger feed generally are cheaper to produce than a conventional feed. Innovation in herbal medicine for livestock to preserve the existing plants in Pasirukem Village starts from ginger, galangal, lemongrass, turmeric, kencur, garlic, and brown sugar.

Besides being used as an ingredient for making feed burgers, straw is also used to help the process of converting animal manure into gas. In 2016 alone the straw used for the biogas process was 2,130 kg. Within a month, the use of biogas can save gas purchases of Rp. 160,000 per month for two houses. In addition to gas for cooking the results of biogas are organic fertilizers used to fertilize agricultural land.

3.3.3. Sukamulya Village. The Merang Mushroom Cultivation CSR Program in Sukamulya Village are able to improve the living standard of the community so that it is more empowered. The highest peak of mushroom production is in 2017 with a production of 2,520 kg for one year. The profit from selling mushroom merung in 2019 is Rp.9,408,000 (table 2).

But according to residents’ observations, the most impactful aspect recognized by villagers is in the social aspect. Before the CSR program, there was a suspicion towards young people in a group form. This is because the young people don’t have an opportunity to work yet, so they often disrupt the stability of the village with negative behavior such as getting drunk, drugs, and being involved in robbery. Then when the Merang Mushroom Cultivation Program was implemented, the youth took the initiative to join
the program to have their own income. After that the crime rate in Sukamulya Village decreased significantly. From the environmental aspect, the Merang Mushroom Cultivation Program changed the view of the villagers towards waste straw. Now the community uses straw for starters in mushroom cultivation.

![Table 2. Merung Mushroom Sales Revenue.](image)

| No | Year | Revenue     |
|----|------|-------------|
| 1  | 2017 | Rp. 9,240,000 |
| 2  | 2018 | Rp. 4,675,000 |
| 3  | 2019 | Rp. 9,408,000 |

Source: PT Pertamina EP Asset 3 Subang Field

3.3.4 Impact on economic, social, environment, and education of villages. Based on the interviews with the villager, they stated that they’re becoming more independent and felt empowered since the CSR program was started. Generally, the impact of PT. Pertamina EP Asset 3 Subang Field CSR program on economic, social, environment, and education are show below:

a. Economy: An increase in income from program beneficiaries who were previously unemployed so have activities in the group and have income.

b. Social: The most noticeable difference is the interaction between villager are more frequent due to their daily meeting to participate in this program. Furthermore, with many employment opportunities the crime rates in the villages are decreasing significantly.

c. Environment: The utilization of straw waste as a medium for mushroom cultivation reduces waste contamination in the villages. This straw is also used to feeding sheep and as a biogas fuel.

d. Education: Through the Assolahiyah PKBM program which focuses on education, the illiteracy rates of village are decreasing significantly.

3.4. Constraints and Obstacles

3.4.1. Pasir Jaya Village. Problems arise regarding fund to conduct training and attending exhibitions at the Government Office of Cooperative. Financial aid from PT Pertamina EP Asset 3 Subang Field is not always given to PKBM Assolahiyah for community independence sake. Invitations to attend exhibitions from government agencies require capital to produce SME products for sale. Beside from CSR funds, PKBM Assolahiyah gets funding from the convection business. When the convection income is declining, it will be difficult to finance related SMEs to attend the exhibition. In addition, sometimes the exhibition does not run smoothly and the products do not sell well, KUPEK must replace the SME’s business capital.

In addition to capital issues, KUPEK also has difficulties in marketing products and expanding marketing because it has no network in the business world. This situation has an impact on SME turn over so SMEs often experience a decline in income even leads to losses and out of business. Lack of knowledge of KUPEK in the business world network is considered as the main factor in the difficulty of expanding market share for SME products. So that there needs to be an evaluation and improvement in this matter.

3.4.2. Pasirukem Village. Before the introduction of livestock health herbal medicine, sheep that were kept often infected by anthrax. Anthrax is caused by worms in the intestine, which causes sheep to only last up to two days from the disease. Anthrax is a metabolic disorder such as poisoning such as bloating of the rumen and food poisoning. Factors that cause the disease in ruminants are maintenance management, environmental quality and outbreak outbreaks. Maintenance management includes housing systems, animal feed and inspection.
Martindah [12] stated that efforts to prevent anthrax outbreaks include maintenance management, including housing systems that are always cleaned, lighting, not humid and the population is not too dense. Providing adequate and quality feed, concentrates are included including minerals that are in accordance with its composition. Vaccines such as anthrax vaccines need to be given, routine administration of worm medicine also needs to be given especially to sheep and goats grazed. Visible signs of symptoms in one or more sick animals need to be consulted with a veterinarian immediately. Besides that, the community should overcome the mosquito Colicoides sp by using a protective net such as a mosquitonet.

3.4.3. Sukamulya Village. Constraints experienced by Sukamulya Village community are the lack of straw supply and difficult to obtain while consumer demand is high. This problem results in the production of mushroom is not in maximum state so that the income of mushroom cultivators becomes lower. This makes workers who are needed in the cultivation of mushroom to be reduced since their income is not optimum.

3.5. Achieving Gold PROPER.
To achieve the Gold PROPER award, a company should compliant with aspects of PROPER requirement. The aspect of PROPER requirement for company are have a program regarding water and energy usage management and conservation, emission reduction, waste management, implementing Environmental Management System 14001:2014, and conducting community development.

PT. Pertamina EP Asset 3 Subang Field has implemented all the requirements, especially the implementation of community development through CSR. Community development program has to be impactful for the village. Furthermore, those community that has been developed could be independent economically and socially. As we have discussed before, all village felt empowered by this CSR Program. Thus, in 2018 PT Pertamina EP Asset 3 Subang Field was rewarded gold PROPER by the Ministry of Environment and Forestry.

4. Conclusion and recommendation

4.1. Conclusion
In general, the entire CSR program of PT. Pertamina EP Asset 3 Subang Field in three villages in the District of Cilamaya South Karawang Regency empowers the community in economic by increasing their income, environmental by recycling their waste, social by increasing social interaction in the village, and cultural aspects by preserving their culture through product development. From an economic aspect the level of people's income has increased. From the environmental aspect the community has been able to manage straw waste and use it for sheep farming and mushroom cultivation. From the social aspect, criminality is reduced because of the reduced number of unemployed people in each village and the community already educated about their cultural potential of their respective villages. Because of this success, PT. Pertamina EP Asset 3 Subang Field was awarded Gold PROPER by Ministry of Environment and Forestry.

4.2. Recommendation
For Desa Pasir Jaya, there is a need to expand market share outside the region so that SME income can increase. In addition, there is a need for PKBM Assolahiyah training related to expanding the business network so that SMEs can market their products outside the region. Then in Sukamulya Village it was suggested to improve their mushroom production rates since the demand of mushroom is high. Increasing mushroom production rates could be possible by increasing their straw supply.

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