



**GREEN INDUSTRY AS A TOURISM-BASED MSME DEVELOPMENT
STRATEGY IN SUPPORTING A SUSTAINABLE FUTURE (CASE STUDY
IN COWINDO SENDANG DISTRICT, TULUNGAGUNG DISTRICT, EAST
JAVA)**

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Abstract

Indonesia's efforts to contribute as a member of the G20 are to maximize domestic economic development. One of the important problems faced in economic development is between meeting development needs and efforts to maintain aspects of environmental sustainability. Environmental problems are a contemporary issue that does not only occur at the macro level. However, at a micro level, the world is trying to get to know the issues of environmentally friendly products or what is known as Green Business or Green Industry. The impact of the existence of the green industry is that the global market trend is increasingly moving towards environmentally friendly products (eco-products). This condition is an obstacle and opportunity that needs to be immediately anticipated and utilized. For this reason, the government created a policy to help MSMEs through the Center for the Study of Green Industry and the Environment of the Ministry of Industry (2011), namely by developing environmentally

Green Industry as a Tourism-Based ...



friendly industries or green industries that can produce green products. MSMEs from the tourism sector in Tulungagung, East Java are Cowindo. Cowindo is one of the educational tours in Sendang District, Tulungagung Regency, East Java. Starting from local wisdom, it became known as a quality milk-producing area, then educational tourism was opened in 2018 and a sustainable production process was officially developed in 2020. In supporting sustainability at the domestic level, biogas is one of the strategies to make it happen. Apart from that, there are several implementations carried out by Cowindo as a form of green business, namely Bio-Slurry, the use of banana leaves as an alternative to reducing the use of soap and water, as well as processing lemongrass distillate for cows to drink as additional nutrition for the cows.

Keywords: Sustainable Development, Green Business, Cowindo



INTRODUCTION

Indonesia has been a member of the G20 since 1999. The G20 has strategic value because it consists of countries that control 85% of the world's total Gross Domestic Product (GDP), contribute to 79% of global trade, and own 65% (or around 2/3) of the total world population. A number of considerations became the basis for Indonesia's involvement in the G20 forum, namely starting from the experience of overcoming the economic crisis in Asia in the late 1990s, Indonesia's resilience in facing the pressures of the global economic crisis in 2008, Indonesia's position as the third largest democratic country in the world, the country with the largest population. fourth, as well as as a leader in ASEAN. Indonesia's socio-political and economic values and posture are certainly an asset for Indonesian diplomacy at the G20.

Indonesia's efforts to contribute as a member of the G20 are to maximize domestic economic development. One of the important problems faced in economic development is between meeting development needs and efforts to maintain aspects of environmental sustainability (Fauzi, 2004). Natural resource-based economic development that does not pay attention to aspects of environmental sustainability will ultimately cause problems in the future. One of humanity's efforts to improve the quality of life while still trying not to exceed its life-supporting ecosystem is by developing the concept of sustainable development.

Sustainable development (Emil Salim, 1990) aims to improve community welfare, to meet human needs and aspirations. Sustainable development is essentially aimed at seeking equitable development between generations now and in the future. According to KLH (1990), sustainable development, which is



basically more economically oriented, can measure its sustainability based on three criteria. Namely: (1) There is no wasteful use of natural resources or depletion of natural resources; (2) No pollution and other environmental impacts; (3) Activities must be able to increase useable resources or replaceable resources.

One of Indonesia's efforts to achieve sustainable development is its participation in the implementation of SDGs (Sustainable Development Goals) which have been regulated by Presidential Regulation Number 59 of 2017. SDGs have become a new history of sustainable development because, in the SDGs agreement at the United Nations (UN) General Assembly, these 70 have new universal development goals starting from 2016 to 2030. The SDGs were ratified on September 25 2015 at the United Nations (UN) Headquarters where 193 heads of state were present to sign the global development agreement. The Vice President of Indonesia, Jusuf Kalla, attended the inauguration has the main principle of Leave No One Behind or Leave No One Behind. This principle emphasizes the involvement of all development actors apart from the government, namely Civil Society Organizations (CSOs), the private sector, academics, etc.

One proof of the involvement of *Civil Society Organizations* (CSOs) in efforts to implement the SDGs, is the emergence of the role of Creative Industries and MSMEs in improving the national economy. Clear evidence of the role of the Creative industry in the economy is its consistently large contribution to national GDP. One of the business strategies carried out is to apply the concept of sustainable business. Sustainable Business is the ability to maintain the competitiveness and performance of a company by integrating the



economy, society, and environment into the company's business scope. However, there are still many demands for solutions to the economic problems experienced by many creative industries and MSMEs. Some of them are, resolving environmental problems, especially environmental pollution caused by production waste and inefficient use of natural resources. With limited natural resources, the energy crisis, and decreasing environmental carrying capacity, these actors are encouraged to develop environmentally friendly production activities or what can be known as green businesses (Green Industry).

With the presence of this encouragement, obstacles, and opportunities arise that need to be immediately anticipated and utilized. For this reason, the government created a policy to help MSMEs through the Center for the Study of Green Industry and the Environment of the Ministry of Industry (2011), namely by developing environmentally friendly industries or green industries that produce green products. Green industry is defined as an industry that in its production process prioritizes efficiency and effectiveness in the use of resources in a sustainable manner so that it is able to align industrial development with the preservation of environmental functions so that it can provide benefits to society. This means that in the current era, products that are able to compete are those whose production process refers to environmental conservation.

At this level, the concept of the green industry provides a stepping stone for creative industry players and MSMEs in their efforts to maintain the sustainability of the Indonesian economy., as is what is done by MSMEs in the tourism sector in Tulungagung, East Java, namely Cowindo. Cowindo is one of



the educational tours in Sendang District, Tulungagung Regency, East Java. To be precise, it stands on 1.5 hectares of land on the slopes of the Wilis mountains, Tugu Village. Sendang District on the slopes of the Willis Mountains has cattle breeders and this activity is very profitable for the economy of the regional community in particular. Not only buying and selling activities for consumption but also processing activities. Starting from local wisdom to being known as an area producing quality milk, Educational Tourism was opened in 2018 and the implementation of Green Industry was officially developed in 2020.

In supporting sustainability at the domestic level, biogas is one strategy to realize the principles of a green industry. Apart from that, there are several implementations carried out by Cowindo as a form of green business which is currently booming. Based on the background above, the author wants to analyze a phenomenon through a written work entitled “Green Industry” As an MSME Development Strategy in Supporting a Sustainable Future (Case Study in Cowindo, Sendang District, Tulungagung Regency, East Java)”.

LITERATURE REVIEW

Green Business Concept in Sustainable Development

The green business concept includes the process of making products using minimal materials and processes that minimize negative impacts on the environment, save energy and natural resources, and are safe for employees, society, and consumers, while still having economic value (Dornfeld, 2013; Rehman et al., 2013). The term green business can also be used to indicate or refer to a series of activities to reduce the impact of a manufacturing process or system on the environment when compared to initial conditions, such as



reducing the hazardous waste produced, reducing the use of coolant in machining processes, or changing the mixture. the energy used makes it possible to use renewable energy sources (Dornfeld, 2013). More than that, according to Eric Koester (2010: 8), in his book entitled Green Entrepreneur Handbook, it is written that “In general, green businesses are just like any other business in that they must create sufficient profits to continue to operate. The difference lies in what else green businesses concern themselves with – weighing the value of sustainability and human capital, for example”. He also added that a green business requires a balanced commitment between profitability (finance), sustainability, and humanity (Eric Koester, 2010). Even though the definition is uncertain and there are many other similar terms, the authors draw conclusions that the basic premise of green business does not only lie in environmental management, but also includes sustainability as a whole.

The concept of green business is interrelated with sustainability. This is a representation of several definitions presented by the authors that green business has the ultimate goal of sustainability. In the context of sustainability, there is the term triple bottom line which includes 3 sectors of economic growth, social cohesion, and environmental protection. Robert (2010) explains in detail that: “The sustainable organization must generate acceptable levels of economic performance, or it will not survive. It must also nurture social performance in its interaction with customers, suppliers, consumers, and other interest groups. Survival is also contingent on the firm’s ability to achieve acceptable levels of environmental performance throughout the supply cycle from raw material procurement to post-consumption disposal”. Thus, a conclusion can be drawn that green business is a business concept that has a positive impact on the



environment and social community but can still increase profits or profitability for economic actors.

Some of the characteristics found in the green business concept are (1) Efficient use of resources, (2) Waste and pollution processing, and (3) Application of environmentally friendly technology. From the 3 stages above, it can be concluded that a company that has sustainability in its vision, namely having a mindset from controlling the pollution produced to preventing the emergence of pollution, implementing sustainable concepts into every daily production process, and adapting clean technology into the company.

RESEARCH METHOD

This method of writing scientific papers uses a type of qualitative research with a case study approach. The data used are primary and secondary data, where primary data comes from interviews and observations, while secondary data is obtained by the author from literature reviews or literature studies which are then combined to provide an explanation or answer to the problem formulation.

RESULTS AND DISCUSSION

Cowindo MSME Profile

Cowindo is a small-sized business entity (MSME) that operates in the creative sector which operates in the sector located in Sendang Village, Sendang District, Tulungagung Regency. From the center of Tulungagung city, this tourist location is approximately ± 25 km with a travel distance of ± 1 hour. This tour is an artificial tour that has natural, water, and educational nuances.



Cowindo Tourism is a new tourist destination that offers 53 natural mountain sensations on a land area of 3 hectares. In terms of tourism management, this is managed by KUD Tani Wilis, which began operating in 2018.

Cowindo’s Vision and Mission

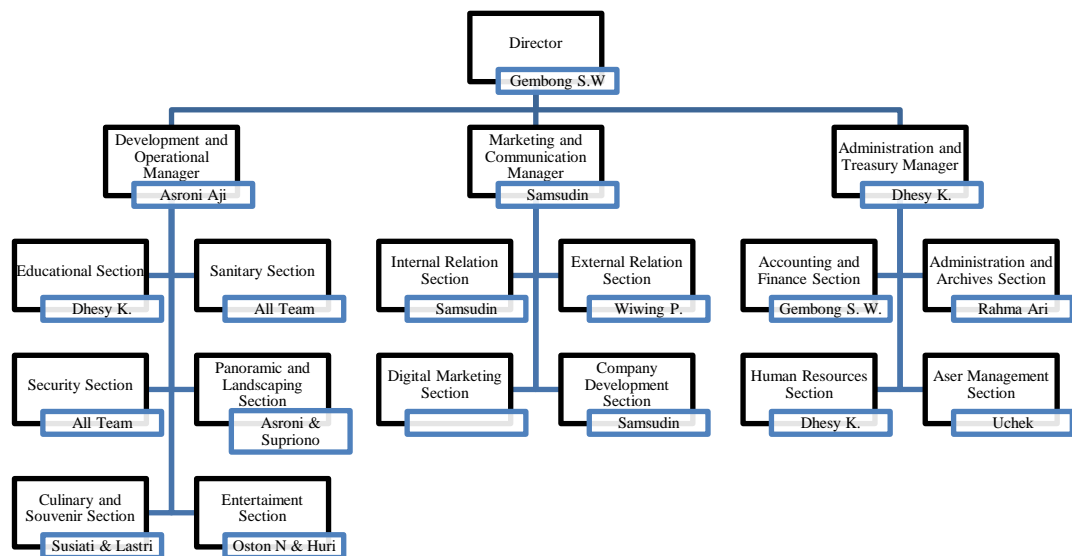
1) Vision

The vision of Cowindo is to create recreational and educational suggestions that utilize local potential and wisdom to be able to compete from an economic and social perspective.

2) Mission

- (a) Opening green spaces and building economical recreational facilities for all levels of society
- (b) Providing an educational touch in every tourist attraction so that tourists can learn while having recreation
- (c) Showing the latest educational tourism models to update tourists' insight while enjoying their recreation time

Cowindo MSME Structure



Source: Cowindo Presentation (CV Surya Kartika), (2023)



Implementation of Green Business in Cowindo MSMEs

Cowindo, which was founded in 2018, finally developed biogas in 2020. Biogas is expected to provide affordable and sustainable bioenergy technology for tourists. Moreover, the population of breeders in East Java is the largest in Indonesia. In addition, Cowindo has a cattle farm which also provides a practical demonstration of how biogas can be processed from livestock manure and how this scheme can provide a circular economy scheme on a household scale.

In practice, not only biogas is being developed by Cowindo, but there are many small but concrete steps that the author can categorize as a strategy to support a sustainable future or an approach to the green industry, including:

a. Biogas

At its inception, Cowindo only had around 6 cows. But now Cowindo has 12 cows. It is known that according to a journal published by Saputri, etc. (2014) it is stated that a cow weighing 450 kg can produce waste in the form of feces and urine of approximately 25 kg/day. If it is not handled properly, it will cause environmental pollution problems in the air, land, and water as well as the spread of infectious diseases. One solution is to process the waste into biogas which can be used as fuel to produce alternative energy that can be used as a substitute for LPG for cooking.

Biogas is a renewable energy source that can answer alternative energy needs. Biogas is gas produced from the process of decomposing organic materials by microorganisms in anaerobic conditions (Wahyuni, 2011). The biogas produced can be used for cooking, lighting, and as motor or generator fuel. Biogas has several advantages compared to fossil fuels. Its

environmentally friendly and renewable nature is one of the advantages of biogas compared to fossil fuels (Wahyuni, 2011). “The presence of Home Biogas at Cowindo can be an educational tour for school-aged children as a vehicle for learning about renewable energy”, said Mr. Wardo as Cowindo Educational Tourism Manager. Apart from being an alternative energy that can be utilized by Cowindo, Biogas is also an educational tool for visitors to understand environmental problems and how to solve them.

Based on an interview with the Cowindo Manager, starting from 2020 Cowindo is committed to processing livestock waste as a small but definite step in supporting the Sustainable Development Goals in point 7, namely regarding clean and affordable energy.

The following is the scheme for making biogas at Cowindo:

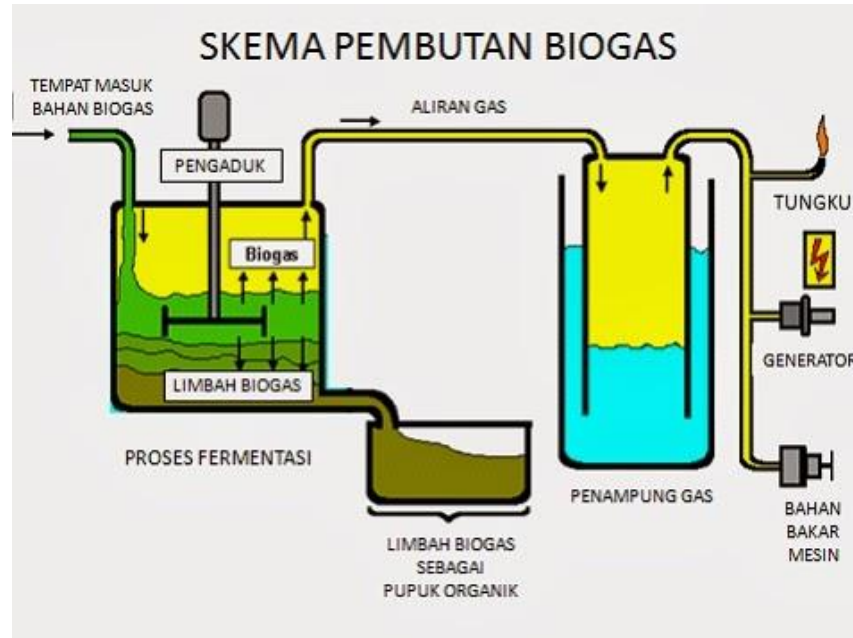


Figure 1

Biogas Production Scheme

Source: Cowindo Presentation (CV Surya Kartika), (2023)

b. Bio-Slurry

The various benefits offered by biogas technology include not only the gas which can be used for cooking, but also the biogas dregs, commonly known as bio-slurry, which can be used as a natural fertilizer in liquid or solid form. Bio-slurry is rich in nutrients and pro-biotic microbes which have the advantage of improving soil structure and increasing soil fertility. So, it has an impact on the quality and quantity of the harvest. Utilization of bio-slurry for planting elephant grass, corn, and other plants. Besides that, waste produced from the biogas process has high economic value because it is also sold by Cowindo as ready-to-use fertilizer.

Here's how to make Bio-Slurry

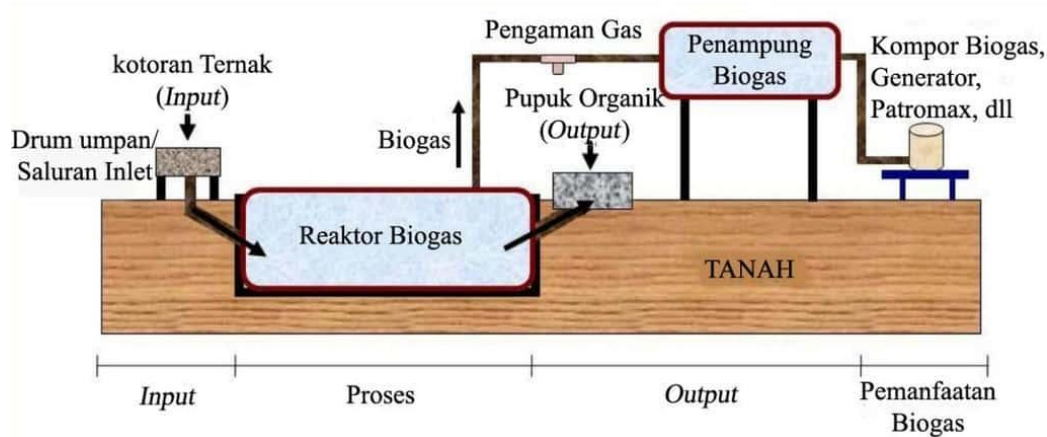


Figure 2
How to Make Bio-Slurry

Source: Cowindo Presentation (CV Surya Kartika), (2023)

How to make organic fertilizer as follows:

1. The remaining waste sludge from biogas production is filtered using a fine wire filter and stored in a plastic drum. Next, to improve the quality, you need to add bone meal or eggshell meal and blood meal, then leave it for 1 week;



2. After one week, filter it again using a cloth used for packaging wheat flour, then squeeze it by twisting the cloth. The filtered liquid is collected in a plastic drum, then left for 3 – 4 days and an aerator are installed to remove the remaining gases;
3. After that, the aerator is removed, then left for 2 days so that the remaining particles settle and the resulting liquid becomes clear;
4. The clear liquid is put into bottles and ready to be sold.
5. The solid part that was obtained was dried for 7 days. Once dry, this solid organic fertilizer is packaged in plastic bags or sacks and ready to be marketed.

c. Using Banana Leaves as an Alternative Place for Food

The large number of banana plants is also used as an alternative to reduce the use of soap and water in washing dishes. Apart from that, there is a distinctive aroma of banana leaves which adds flavor to the dishes served. So, the theme of traditional cooking is also included in the alternative concept of saving water and dishwashing soap.



Figure 3

Use of Banana leaves to cover food containers

Source: Taken by Researchers (2023)

d. Processing Lemongrass Distillate for Cows to Drink as Additional Nutrition for the Cow



The use of citronella waste as additional nutrition for cows is carried out considering the large amount of waste produced from citronella waste. Citronella waste used as cattle feed is one solution. This waste can be given directly to cows or can be processed into hay or silage first. How to make hay or silage using citronella waste is quite easy. The steps for making it are as follows. First, these leaves are dried in the sun for 1 day. The purpose of drying is so that the citronella waste wilts. The weight of the raw materials required is approximately 700 kilograms. If it has wilted, the raw material is then processed in a distiller for approximately 2 hours. The remaining waste from this refinery is also dried in the sun. So that there is not a lot of water in the waste, the waste is chopped or cut into 3 - 4 parts.

CONCLUSION

Cowindo is one of the educational tours in Sendang District, Tulungagung Regency, East Java. Starting from local wisdom, it became known as a quality milk-producing area, then educational tourism was opened in 2018 and a sustainable production process was officially developed in 2020. In supporting sustainability at the domestic level, biogas is one of the strategies to make it happen. Apart from that, there are several implementations carried out by Cowindo as a form of green business, namely Bio-Slurry, the use of banana leaves as an alternative to reducing the use of soap and water, as well as processing lemongrass distillate for cows to drink as additional nutrition for the cows.

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