

The Role of Agroindustry in the Sustainable Development Goals (SDGs)

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Abstract—Indonesia is one of the countries that has a potential area in the agricultural sector, has an area of land that can be used and utilized in the agricultural sector. The majority of people are farmers, which is one of the interests of the work carried out by people in various regions in Indonesia. The vast potential of land is one of the main factors for people to choose farmers to be one of the main jobs for people in rural areas in Indonesia. The method used in this study is a qualitative research method. The purpose of this research is to see the role of agroindustry in the Sustainable Development Goals (SDGs). From the research, information is obtained that agroindustry is one of the fields that is able to bring Indonesia to a more developed state and becomes an importer in agriculture, it is necessary for the participation of the younger generation and also the role of the government in development efforts in an increasingly modern era.

Keywords— agribisnis; sustainable agriculture; SDGs

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I. INTRODUCTION

Indonesia is a country with an area of land resources ranging from 1,922,570 km², with very adequate land for the world of agriculture (Udayana, 2011). The area is meaningless if there is no good management for the land processing process. Indonesia has become an icon because it has a role in importing food. It is necessary for the participation of the younger generation in development and become a real solution in dealing with problems related to agroindustry. There needs to be a concept that is able to make it a real solution in sustainable agriculture as an effort to prosper all aspects of life, especially for Indonesian farmers.

Young people are a benchmark for success in embracing farmers in various regions in Indonesia in facing challenges in an increasingly modern and sophisticated era. The government also has an important role as a leading sector that is able to make farmers more prosperous in the coming era. The government is working on various programs, one of which is food self-sufficiency which was launched in 2016 and focused on rice plants, but not only that year the government also continued with commodities in the form of corn in 2017, then soybeans and sugarcane which were implemented in 2019. However, from all the programs that have been launched by the government, there are still many farmers in various sectors who are less prosperous, so it is necessary to evaluate various lines in order to realize the welfare of farmers throughout Indonesia.

The Sustainable Development Goals (SDGs), also known as the global Goals, were adopted by the United Nations in 2015 as a universal call to action to the poverty, and ensure that by 2030 all people and prosperity (Allen et al., 2018). The 17 SDGs are greatening they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability. Countries have committed to prioritize progress for those who're furthest behind. The SDGs are designed to end poverty, hunger, AIDS, and discrimination against women and girls. The creativity, knowhow, technology and financial resources from all of society is necessary to achieve the SDGs in every context (Kroll et al., 2019).

The number of undernourished people had dropped by almost half in the past two decades because of rapid economic growth and increased agricultural productivity (Awan & Aslam, 2015). Many developing countries that used to suffer from famine and hunger can now meet their nutritional needs. Unfortunately, extreme hunger and malnutrition remain a huge barrier to development in many countries (Ernest III et al., 2004). There are 821 million people estimated to be chronically undernourished as of 2017, often as a direct consequence of environmental degradation, biodiversity loss. The SDGs aim to end all forms of hunger and malnutrition by 2030, making sure all people especially children have sufficient and nutritious food all year

(Grosso et al., 2020). This involves promoting sustainable agricultural, supporting small-scale farmers and equal access to land, technology and markets (Goodwin, 2001). It also requires international cooperation to ensure investment in infrastructure and technology to improve agricultural productivity. This is a reference for the author to be able to contribute thoughts in order to reduce the problems that occur today, so the author conducts a case study on the Role of Agroindustry in the Sustainable Development Goals (SDGs).

II. RESEARCH METHOD

The target and research location is the rice agro-industry which is located in the Kauman District, Kauman District, Tulungagung Regency. Sampling using a simple random method (simple random sampling). The variables studied were:

1. Internal characteristics of the agroindustry (Goody & Goody, 1976):
 - a. Farmer's age
 - b. Farmers' income
 - c. Labor wages
 - d. Land ownership
 - e. Operating costs
 - f. Selling price of manufactured goods
2. External characteristics of agroindustry (Stinchcombe, 2000):
 - a. Total population
 - b. Amount of rice needed
 - c. Production quantity
 - d. Profit

The analytical method used by the author aims to determine the ability of the rice agroindustry. The role of farmers in supporting the provision of rice for farmer households by calculating the amount of rice milled by the agro-industry within one month (MacDonald et al., 2000). To find out the ability of the rice agroindustry to provide employment by calculating the number of people involved in working in the agroindustry. To determine the added value obtained by the agroindustry and farmers, a value added model analysis was used.

III. RESULT AND DISCUSSION

Agroindustry is located in almost all regions in Indonesia. The existence of agroindustry so far has not been going well. The state of the agro-industry business is described by the income and operational costs of the agro-industry (Ismipi, 2009). Problems that arise from various aspects include the following:

1. Low prices of agricultural commodities

2. Supply chain that is too long and reduces farmers' income significantly
3. Farmers generally do not have a bargaining position
4. Low income of farmers
5. Insignificant impact of industry on people's welfare

These problems do not occur only in Indonesia, but also in various other developing countries and they also receive demands to be able to overcome poverty, inequality and climate change so that the SDGs are formulated which have sustainable goals and have been discussed by 189 countries and are being proclaimed by the United Nations and is planned to be achieved in 2030. The three pillars which are the main dimensions are environmental, social and economic. In the SDGs itself there are 17 main development goals that are expected to provide real solutions. The 17 objectives are as follows:

1. No Poverty
2. Zero Hunger
3. Good Health and Well Being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation, and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace and Justice Strong Institutions
17. Partners for the Goals

Referring to the 17 main development goals, it takes several elements of the community who are willing and able to participate in realizing The Global Goals. Researchers are more focused on observing in order to reduce hunger rates by focusing on sustainable agriculture so that this can be one of the real steps in efforts to eradicate hunger and towards the global goals.

Agroindustry is one of the gaps to be able to realize sustainable development, from agribusiness that can run according to its objectives so that it can make a major contribution to improving people's welfare.

The criteria for the success of an agroindustry include:

1. Internal characteristics of the agroindustry:

a. Farmer's age(Sembiring, 2016)

Age is one of the main criteria in agro-industry development efforts, where the age of the farmer determines a person's acceptance of new information and is also willing to apply it in their farming system. Age is also able to make a significant change so that a person responds to the agents of change that are around him as an effort to advance their agroindustry.

b. Farmers' income(Damanik, 2014)

Farmers' income levels have an important meaning in the agro-industry business because different farmers' incomes give different responses to each agricultural production process.

c. Labor wages

The wages of workers in the agricultural sector are currently considered insufficient because they are not in accordance with the wages that should be given to a worker. So that it also affects the development of the agricultural industry, with low wages so that certain groups who want to grow crops and have aspirations as farmers, have an effect on interest in becoming farmers and have an impact on the decreasing amount of agricultural production.

e. Land ownership(Moniaga, 2011)

Agricultural land has various types of ownership and this affects the results of the existing agro-industry.

f. Operating costs(Jehamat et al., 2020)

The operational costs that exist in each production process are known from the amount of expenditure owned by farmers in one production period. Operational costs have an effect on the income received by farmers from the sale of their agricultural production.

g. Selling price of manufactured goods(Dewi et al., 2020)

The selling price of production goods in the market determines whether the results of the production in each production experience a profit or loss, from the calculation of basic materials and operational costs so that the selling price appears and will later give results whether the farmer is profit or loss. Because the market gives a different price at any given time so that the selling price becomes one of the main determining factors (Sembiring, 2016).

2. External characteristics of agroindustry:

a. Total population(Pewista & Harini, 2013)

The population is a determining factor, this is because the large number of residents has an influence on the amount of demand for rice in the region. The amount of rice needs can support food security by providing staple food in the form of rice.

b. Amount of rice needed(Wijayati & Suryana, 2019)

The difference in the amount of staple food needed in the form of rice in each region provides a difference in the amount of rice needed and this affects the level of sales of farmers in selling their products (Apriadi & Saputra, 2017).

c. Production quantity (Apriadi & Saputra, 2017)

The amount of production in each region is different, namely based on the area, the amount of demand for rice, and the number of residents in an area. The amount of production also provides differences in the income obtained by farmers in each production process.

d. Profit (Bukit, 2013)

The profits/profits obtained by farmers in each production process have an influence on the level of farmers' income which also affects the level of welfare of farmers in an area (Widyawati & Pujiyono, 2013).

Various characteristics become mutually sustainable and mutually influence each other so that each of these characters needs to be studied more deeply so that it can bring up a new formula to increase farmers' income in every production process they do. The increasing welfare of the farming community in an area has a considerable impact on the welfare of the community in general in an area (Widyawati & Pujiyono, 2013).

Agroindustry has a fairly broad scope of fields, one of the focuses of which is the sustainable processing of agricultural products, through this focus the goal of SDGS number 2, namely reducing hunger and increasing food security, can very well be achieved with the progress of agroindustry (Abraham & Pingali, 2020). Efforts that can be done are meeting food needs through local food consumption, downstreaming of local resources into staple food sources to replace rice, for example by processing it into analog rice, providing alternative food such as using Indonesian tuber flour as raw material for wheat for rice production (De Datta, 1981). Noodles, pasta, cookies and bread, as well as independent food preparation as an application of agro-industry knowledge at the family level.

Functional food for health, agro-industrial technology also explores the introduction of potential raw materials including identification of the functional value of agricultural products. The progress of agro-industry will greatly assist the fulfillment of sustainable development goal number 3 regarding health and welfare (Da Silva, 2009). Functional food itself is food and food ingredients that can provide additional benefits in addition to the basic nutrition of food. Agroindustry can play a role in processing these materials into industrial products that are easy to consume by the general public (Praburaj et al., 2018).

IV. CONCLUSION

Agroindustry is one of the tangible forms of sustainable agricultural efforts, agroindustry provides a fairly significant role in building the welfare of farmers. The supporting characteristics are:

1. Internal characteristics, external characteristic.
2. The role of the younger generation in mobilizing the younger generation to have an entrepreneurial spirit in the field of agriculture and providing stimulants to farmers so that they become more modern following the current developments.
3. The government in an effort to improve the welfare of farmers through good support for every agro-industry in various regions by way of full support for existing policies in the government that are in favor of the farming community.

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