



## Externality analysis of oil palm plantation business in Pasangkayu Regency

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### ABSTRACT

This study aims to determine the positive impact and negative impact on the palm oil plantation business for the community around the palm oil mill company in Bulu Mario Village, Sarudu District. The form of this research is descriptive. The data collection technique used is field research consisting of interviews, questionnaires, and documentation. While the data analysis used is primary data and secondary data collected using descriptive analysis of research that seeks to describe or describe the object under study based on facts in the field. By using key informants and informants as data sources, the data presented uses primary and secondary data through interviews, books, and the internet, then the data analysis technique used in this study is an interactive model qualitative data analysis from Miles Huberman and Saldana. The results showed that the positive impact of this business was felt by the people of Sarudu District. Improving community welfare, increasing income and also the level of education is progressing and developing.

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### 1. INTRODUCTION

Development aims to improve the welfare of society is an organized and coordinated effort to create more choices for members of society in order to meet their unlimited needs (Ovretveit 1993). Economic development reflected in economic growth and structural changes in the economy and people's lives is something that developing countries pursue and want to achieve (Kuznets 1973) (Friedman 2017) (Lin 2011). The economies of developing countries are generally more oriented towards the production of primary goods (agriculture, fuel, forest products and other raw materials) compared to the production of secondary goods (industry) and tertiary goods (services) (Jomo and Rock 1998) (Radetzki and Wärell 2020) (Belcher and Kusters 2004).

In Indonesia, economic development is dominated by agricultural and plantation activities. Land use for agricultural activities is very important (Rondhi et al. 2018) (Budidarsono, Susanti, and Zoomers 2013). This sector provides food for most of the population, provides employment for almost the entire labor force, produces raw materials, raw materials, and is a source of foreign exchange revenue for the country. People who work in this sector generally have low productivity. Low income affects farmers' ability to improve capital for investment and consumption (Reardon, Crawford, and

Kelly 1994)(Reardon et al. 1994). This condition causes farmers to develop extensive agriculture(Mariyono 2019). To see the level of welfare of farmers as a whole, it is also necessary to look at the other side, namely the development of the amount of their expenditure/spending both for consumption needs and for production(Abdullah, Mat Derus, and Al-Malkawi 2015). The development of agriculture and plantations has an important meaning for increasing national economic growth as well as improving people's standard of living(Susilastuti 2018)(Douthwaite 1993). Development in the agricultural and plantation sectors at a certain stage will create considerable agribusiness development(Corporations 2009)(Hall, Scoones, and Tsikata 2017).

Fisher (1996) says that externalities occur when one economic actor's activity (either production or consumption) affects the welfare of other economic actors and the event occurs outside the market mechanism(Vatn and Bromley 1997). So when externalities occur, private choices by consumers and producers in private markets generally do not produce something that is economically efficient(Liebowitz and Margolis 1995). In running a business activity, it certainly has externalities for other people and the surrounding environment(Meade 1973). Externality is the impact (positive or negative) of the existence of a business which is a necessity that economic actors need to know(Arrow 1970). If the impact is detrimental, it is called a negative externality. Conversely, if the impact is beneficial, it is called a positive externality(Netessine and Zhang 2005). Externality issues are related to justice and welfare issues that occur in society(Dahlman 1979). In addition, the development of regional superior potential can be done through the development of the industrial sector for three main reasons(Basuki and Budiarto 2021)(Fauzi et al. 2019). First, industry is the only economic sector that can produce the greatest added value, making it the largest contributor to the growth of Gross Regional Domestic Product (GRDP)(Hussin and Yik 2012). Second, industry can be both a puller (through backward production linkages) and a driver (through forward production linkages) of the development and growth of output in other economic sectors(Kaplinsky, Morris, and Kaplan 2011)(Kaplinsky et al. 2011). Third, industry is the most important sector for technological development, and the creation of new innovations that can further provide a multiplier effect(Lee and Clarke 2017)(Veretekhina et al. 2017). It is said that oil palm began to enter West Sulawesi Province through the People's Core Plantation (PIR) program in the 1980s(Susanti 2016). At that time, oil palm, which developed in three districts, namely Mamuju, Central Mamuju and Pasangkayu, began to drive and support the economy in West Sulawesi and create new jobs(Anas et al. 2023). According to research conducted by Bank Indonesia (BI), the two main drivers of development in West Sulawesi are direct investment from the government and the oil palm sector(Anas et al. 2023)(Casson 2000).

As a regency that is still very young, at the age of 17, Pasangkayu continues to move dynamically through the utilization of its various potentials in order to prosper its people(Syarifuddin and Damayanti 2015). In addition to having plantations covering 100,084 hectares, there are also factories and refineries that produce export-ready commodities. The total population of Pasangkayu District is 188,861 people, most of whom work on oil palm plantations. One of the 12 sub-districts that has a large population and is the first area to be a source of large oil palm plantations is Sarudu sub-district. The total population of Kecamatan Sarudu is 15,902 people.

## 2. RESEARCH METHOD

### Type of Research

This research is designed as descriptive research(Erickson 2017)(Homes 2009), namely research that aims to describe phenomena and facts in the field related to the oil palm plantation business in Pasangkayu Regency(Rahmawati et al. 2023).

### Data Collection Method

The data collection method used to obtain data in this study was through direct interviews and primary data collection. Primary data collection was carried out using a list of questions that had been prepared based on research needs. The questionnaire acts as a general guideline to remind researchers not to deviate from the research objectives(De Leeuw 2012)(Kawulich 2005).

**The methods used in obtaining data in the field are:**

- (1) Interview, which is carried out by meeting face to face with respondents to obtain the desired information, Interview or interview is "a conversation between a researcher (someone who wants to get information related to the research subject) and an informant (someone who has information on the subject)".
- (2) Questionnaire, which is a number of written questions submitted to respondents,
- (3) Documentation, which is carried out to obtain written data, both in the form of reports, photographs and previous reports, and maps of oil palm development locations(Labov 1981)(Guest, Namey, and Mitchell 2013).

#### Data Analysis

The data analysis method used is a descriptive method using a frequency variable table. Descriptive method is a method of examining the status of a group of people, an object, a set of conditions, a system of thought, or a class of events in the present. The purpose of this descriptive research is to make descriptive, description or painting systematically, factually and accurately about the facts, properties and relationships between the phenomena investigated(Grimes and Schulz 2002)(Perrier and Flori 2003)(Caracelli and Greene 1993).

### 3. RESULTS AND DISCUSSIONS

Oil palm is an important and strategic commodity in Pasangkayu Regency because of its significant role in driving the people's economy, especially for plantation farmers. Oil palm is a prime crop for rural communities in Pasangkayu Regency. This is quite reasonable because Pasangkayu Regency is suitable and potential for plantation development. Oil palm began to enter West Sulawesi Province through the People's Nucleus Plantation (PIR) program in the 1980s. At that time, oil palm, which developed in three districts, namely Mamuju, Central Mamuju and Pasangkayu, began to drive and support the economy in West Sulawesi and create new jobs. According to research conducted by Bank Indonesia (BI), the two main drivers of development in West Sulawesi are direct investment from the government and the oil palm sector.

The area of Pasangkayu Regency is 3,043.75 Km<sup>2</sup>. Geographically, Pasangkayu Regency is located at a coordinate point between 3°39' to 4°16' South latitude and 119°53' to 120°27' East longitude with boundaries in the north bordering Donggala Regency, Central Sulawesi Province, south bordering Central Mamuju Regency, east with North Luwu Regency and west bordering the Makassar Strait. The distance between Pasangkayu, which is also the capital of the regency, and its former parent is about 276 kilometers. The relatively short distance takes 8-9 hours to travel. Pasangkayu's economy depends on the plantation sector. The contribution of plantations to Pasangkayu's gross regional domestic product (GRDP) in 2002 was Rp 238.67 billion. This value is equivalent to 78.32 percent of the total economic activity of Rp 304.72 billion. In the agricultural sector, plantations are the main driving force. Economic activities in the plantation sector generated no less than 195.62 billion.

Pasangkayu has about 4,100 hectares of smallholder coconut plantations. Labor absorbed into this plantation is at least 4,200 farmers. Of the 4,158 trees in production, 4,794 tons of coconut are produced. The marketing area is Surabaya. The coconuts are shipped to the capital city of East Java Province through the Sarudu community port. The total land area is 36,818 hectares with a production of no less than 200,000 tons.

With this plantation business, the government is working with the company to build a factory to process the oil palm fruit, so that the community can enjoy the results of this business.

- a) Increase community income  
Increasing community income from various sources of income is also one of the benefits for the community in the oil palm plantation business.
- b) Improving Education  
Improving community education. In this case what is meant is that people can study without constraints on the cost of education. Provide proper education for their children. So that they can

- c) Life Ownership Facility  
Improving people's lives, such as building houses from the proceeds of this business.
- d) From this business, people can have savings for the future.  
Every business has advantages and disadvantages. The disadvantage of this business is the environment. The environment is a combination of physical conditions that include the state of natural resources such as land, water, solar energy, minerals, and flora and fauna that grow on the land and in the ocean, with institutions that include human creations such as decisions on how to use the physical environment. A clean environment provides coolness for the surrounding community.

The following is a table of frequency variables used to measure data from various informants that have been determined.

**Tabel 1.** Tabel frekuensi jawaban responden

No	Statement List	SSS		SS		S		TS		STS	
		F	%	F	%	F	%	F	%	F	%
1	This oil palm plantation business is very helpful in fulfilling your needs.	90	90	2	2	8	8	-	-	-	-
2	This business does not help you to fulfill your needs.	-	-	-	-	-	-	90	90	10	10
3	With this business, the community's income is increasing.	90	90	9	9	1	1	-	-	-	-
4	Community income has not increased.	-	-	-	-	2	2	96	96	2	2
5	The environment in palm oil mill companies is highly polluted due to waste.	10	10	10	10	30	30	30	30	20	20
6	The company's waste must be disposed of in the place provided so that it does not pollute the surrounding environment.	90	90	10	10	-	-	-	-	-	-
7	A clean environment will have a positive impact on health and avoid various diseases.	98	98	2	2	-	-	-	-	-	-
8	The community is now more advanced and developed after the entry of oil palm plantations in this area.	90	90	2	2	8	8	-	-	-	-
9	Children can enjoy the world of education without being burdened with education costs.	15	15	15	15	50	50	20	20	-	-

**Discussion**

**Income levels of oil palm growers in Pasangkayu District**

This oil palm plantation business is very helpful in meeting the needs of the community. Because the community's income has increased after this plantation business. To increase farmers' income can be achieved by implementing efforts to increase production and improve the quality of results. Thus the goal of national development in the plantation sector to improve the welfare of the community can be achieved through improvement and diversification of farming. Through this business, the community can improve their children's education, provide proper schooling for their children, and can open new businesses. The community can create new businesses from the results of this plantation business, thus increasing the community's income. So that it can improve the education and training system not only benefits workers and companies(Andrianto, Komarudin, and Pacheco 2019)(Othman 2003)(Othman 2007).

It also benefits the economy as a whole, with better education and training, workers earn higher salaries and companies can increase productivity. In this case what is meant is that people can study without constraints on the cost of education. Providing proper education for their children. So that they can send their next generation to school. Increasing community income from various sources

of income is also one of the benefits for the community in the oil palm plantation business. The community can open new businesses in order to provide employment opportunities for other communities and increasingly provide benefits for themselves and can help others in need (Rokhim, Januari, and Shara 2021) (Wainaina, Minang, and Nzyoka 2021).

#### **Oil Palm Plantation Labor Absorption**

Labor absorption is the number of jobs that have been filled, which is reflected in the growth of the working population (Rosida n.d.). The working population is absorbed and spread across various sectors of the economy. The absorption of the working population in various sectors and business fields is due to the demand for labor. Therefore, labor absorption can be said to be a demand for labor.

For communities that have oil palm plantations with high productivity levels, it must be difficult to complete the work alone. This is one way to prevent the unemployment rate for the community, helping each other, so that the community provides employment opportunities, expanding employment and employment opportunities to people who need work.

#### **Productivity of Oil Palm Farmers**

The increase in productivity is due to the use of new high-yielding varieties and recommended fertilizer doses, as well as the application of the jajar legowo planting system and environmental conditions that are suitable for the growth and production of the new high-yielding varieties applied. With the jajar legowo planting system all rows of plant clumps are at the edge of the plant which usually gives higher yields (edge plant effect). Rice yield is determined by its yield component while the yield component is determined by plant genetics as well as environmental factors such as climate, nutrients, soil, and water.

The analysis shows that in Sarudu sub-district, the use of new superior varieties (VUB) results in higher productivity. This has greatly increased oil palm production. Oil palm is one of the plants that from planting to harvesting requires the correct maintenance process. Such as the process of fertilizing, fertilizer materials and cleaning around oil palm trees must be done regularly and correctly so that oil palm also provides satisfactory results.

Increased productivity provides many benefits for farmers. The increasing productivity of oil palm, further improves the welfare of the community because of course the income also increases.

#### **Negative Externalities of Oil Palm Plantation Business**

There are two types of externalities: negative externalities and positive externalities. Negative externalities are those that create costs, while positive externalities provide benefits. Cost externalities harm other people or the environment. It can take forms like radiation, river or air pollution, or noise. The surrounding community has to suffer and there is no compensation for it. External benefits are the positive effects of economic activity on other parties that are not directly involved.

Externalities often arise due to unclear enforcement of property rights. For some goods such as land, buildings and money, enforcement of property rights is easy. But, it is not for others such as air and water. Water and air flow freely across private property boundaries. That makes it much more difficult to establish ownership.

The negative impacts of these activities are on the environment and health aspects. The causes are company waste and air pollution. Waste that is disposed of carelessly will pollute the surrounding environment, and air pollution that is spread everywhere makes it difficult for people to move so that it can have a negative impact on the surrounding community, public health is also disrupted and many diseases are contagious.

#### **4. CONCLUSION**

Based on the data description of the results of discussion and research on the externality of the oil palm plantation business, the author draws several conclusions, among others: In this study, it was found that there was an increase in income in the community. After the existence of this business, the community feels more about their increased income level. For people who have oil palm plantations that have a high level of productivity, it can provide employment opportunities for people who do not

have jobs, thereby reducing the level of unemployment in other communities. The increasing amount of productivity, the more workers are included and the better the community's economy as a result of the positive impact of the oil palm plantation business. Negative externalities that are felt by the community from this business through environmental and public health aspects, namely air pollution, noise and a polluted river environment, so that public health is disturbed.

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