

Study Of The Impact Of Changing Patterns From Cocoa Farming To Corn Business On Farmers' Socio-Economic

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Abstract

Cocoa farmers in Matangnga subdistrict, Polewali Mandar district, specifically in Matangnga subdistrict, have been producing cocoa for decades. However, in the last 2 years, many cocoa farmers have switched to corn farming, even though cocoa is Indonesia's mainstay commodity and the 3rd largest cocoa producer in the world. This research aims to find out the perceptions of cocoa farmers regarding changes in farming patterns from cocoa to corn, to find out the impact on farmers' socio-economic conditions and to find out how cocoa farmers' income is after changing farming patterns to corn in Matangnga District, Polewali Mandar Regency. The sample determination method in this research uses *purposive sampling*, which is namely a technique that is based on certain considerations made by the researcher based on previously known characteristics or traits of the population, then the researcher determines based on his considerations. The data collection methods are observation, interviews and documentation. The data analysis method used is qualitative descriptive data analysis, namely in the form of a collection of words taken from interviews (questionnaires) given to farmers regarding cocoa and corn farming income analysed using the farming income analysis method.

Keywords: *Farming, cocoa, corn, farmer perceptions, socio-economic impacts*

A. Introduction

Indonesian cocoa is in great demand on the international market because its fat composition differs from cocoa from African countries, especially in terms of its low Free Fatty Acid content and high melting point, as recorded in the 2020 National Leading Plantations statistical data. In 2020, exports of Corn from Indonesia are dominated by processed products, while corn imports are dominated by fresh products. Processed corn exports in 2020 reached 54.29% of the total value of Indonesian corn exports, while imports of fresh corn reached 56.49% of the total value of corn imports in the same year. According to BPS data for 2021, West Sulawesi is one of the main contributors to cocoa production in Indonesia.

Corn production in Polewali Mandar district is ranked fifth out of six districts in West Sulawesi, with production in 2017 of 510 tons. The cocoa planting area according to the West Sulawesi Central Statistics Agency, Matangnga District, shows that in 2016 the planting area was 75 Ha, in 2017 the planting area was 859 Ha, in 2018 the planting area was 2,043 Ha and in 2019 the planting area was 1,983.00 Ha. Meanwhile, the corn planting area in 2016 was 4,881.13 Ha, in 2017 the area was 4,284.95 Ha, in 2018 the area was 4,284.62 Ha and in 2019 the area was 4,284.62 Ha. West Sulawesi, Polewali Mandar district, precisely in the Matangnga sub-district, one of the livelihoods of farmers there is cocoa. Farmers there have been producing cocoa for decades. However, in the last 2 years, many cocoa farmers have switched to corn farming, even

though cocoa is Indonesia's mainstay commodity and the largest cocoa producer. 3rd in the world.

B. Methodology

Place and time of research

This research was carried out from November 2023 to January 2024 in Matangnga Village, Polewali Mandar Regency. Researchers chose the Matangnga sub-district because there was a phenomenon of changing the pattern of cocoa farming to corn farming and it was the second cocoa production in the Matangnga sub-district.

Population and Sample

The population of this research is all cocoa farmers in the sub-district Matangnga, The population of cocoa farmers in Matangnga sub-district is 347 people judging from the number of members of cocoa farmer groups in Matangnga sub-district. Sampling used purposive sampling. As Sugiyono (2016) said, purposive sampling is a data source sampling technique with certain considerations. So the considerations in taking this sample include: 1. The criteria for farmers taken are farmers who have transitioned the commodity from cocoa farming to corn farming. 2. The number of informants used can represent the existing population. So in this study, the respondents used were 21 farmers from the existing population of 347.

Data Analysis

Data collected through interviews and observations with cocoa farmers will be analyzed qualitatively descriptively, namely in the form of a collection of words taken from interviews (questionnaires) given to cocoa farmers in Matangnga Village.

Based on the objectives of this research, the data obtained regarding Cocoa and corn farming income was analyzed using the Farming Income Analysis method. As stated by Soekarwati (2006), farming income is the difference between revenue and all costs. To find out income, it is mathematically formulated as follows:

$$\pi = TR - TC$$

Information:

π = Revenue

TR= Revenue

TC= Total costs

C. Findings and Discussion

1. Farmers' Perceptions of Changing Cocoa Farming Patterns to Corn Farming

Table 2. Farmers' Perceptions

No	A list of questions	Answer Choices				
		SS	S	N	TS	STS
		5	4	3	2	1
1.	The transition from cocoa farming to corn farming is one of the most appropriate efforts to improve farmers' welfare	21	-	-	-	-
2.	Corn farming can provide greater opportunities to increase farmers' income compared to cocoa farming.	21	-	-	-	-
3.	Corn farming can accelerate the erosion of agricultural land, thereby triggering land degradation.	-	-	21	-	-
4.	The risks in managing cocoa farming are much greater than the risks in managing corn farming	-	-	1	19	1

5.	Corn farming provides greater hope for improving the household economy of farmers compared to cocoa farming.	21	-	-	-	-
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Source: Primary Data Processed 2023.

From the questionnaires distributed by researchers in the field, researchers found that cocoa farming income was decreasing due to pests and diseases attacking cocoa plants causing cocoa beans to become rotten, hard, black and sticky so that little cocoa production caused farmers' income to decrease greatly. Farmers are making the switch to corn farming because corn farming can provide greater opportunities to increase farmers' income compared to cocoa farming.

Farmers' perception of being neutral or not knowing about corn farming can accelerate erosion on agricultural land, thereby triggering land degradation. According to (Fitryane Lihawa 2012) states that changing land use to corn can result in damage which impacts the hydrological function of the soil based on variations in rainfall and slope slope. Rainfall capture, infiltration and water storage are greatly reduced, and the distribution system becomes very wasteful. This incident will cause flooding in the rainy season and conversely drought in the dry season.

From the research results obtained in the field, indeed, floods often occur if the rainfall is high because the river that borders the village overflows so that residents who usually want to go to town by car are blocked because the big bridge made by the government is not yet fully finished and it is true that drought occurs in the dry season. This can be seen from the fact that the river connecting the sub-district and Katimbang village is receding and there is little water flowing into the houses of the village community.

2. Socioeconomic Impact of Cocoa Farmers switching to corn

There are eight levels of family welfare according to the National Family Planning Coordinating Board (BKKBN) 2021, namely: the indicators used are income, consumption or family expenses, living conditions, living facilities, health of family members, ease of getting health services, ease of getting you into the education program. education, and ease of obtaining transportation facilities. The research results obtained in the field can be seen in Table 10 as follows:

Table 3. Level of Farmer Welfare in Mtangnga sub-district, Polewali Mandar Regency

No	Indicator	Farmer welfare level	
		Low (0-10.5)	Height (10.6-21)
1	Income	10	11
		(47,62%)	(52,38%)
2	Household consumption	3	18
		(14,29%)	(85,71%)
3	Living conditions	6	15
		(28,57%)	(71,43%)
4	Residential facilities	0	21
		(0%)	(100%)
5	Health	2	19
		(9,52%)	(90,48%)
6	Social community	0	21
		(0%)	(100%)
7	Education	2	19
		(9,52%)	(90,48%)
8	Public transportation (Facilities	7	14

	transportation)	(33,33%)	(66,67%)
Total		30	30
Rate rate		4	4

Source: Primary Data Processed 2023.

Information:

Well-being level High 10.6-21

Low level of well-being 0-10.5

a) Income

Income is the income that farmers get from their results sell the commodity. The welfare of a farming family can be assessed by how much income it earns and how much it spends to fulfil its consumption within a certain period, whether it is the consumption of primary needs in the form of food and clothing or secondary consumption needs (Safrijal, 2022). Table 3 shows that there are 52.38% who are in the high category in terms of numbers 11 farmers mean the average income of cocoa farmers after switching to corn in Matangnga District, Polewali Mandar Regency, with farmer income of IDR 12,854,054 (Twelve Million Eight Hundred Fifty-Four Thousand Fifty-Four Rupiah) per hectare is considered to be in the category high because the amount exceeds the average income of other farmers and farmers have other sources of income apart from agriculture. Meanwhile, 47.62% are in the low category with 10 farmers in the low category because each farmer has different needs and has larger family responsibilities or has special needs that require more money.

b) Household consumption

The welfare of a family can be assessed by how much income it earns and how much it spends to fulfil its consumption within a certain period, whether it is the consumption of primary needs in the form of food and clothing or secondary consumption needs (Safrijal, 2022).

Based on table 3, shows that there are 85.71% are in the high category with 18 farmers in the Matanga subdistrict, Polewali Mandar district having at least two to 3 meals a day, able to consume fish and eggs once a week, agricultural products owned by the farmers It is also consumed personally by the farming family itself so that members of the farming family can buy 1 set of new clothes a year and the clothes for home/school/travelling can be different.

c) Living Conditions

A place to live or a house is one of the primary needs of every family. A family can be classified into the decent living category if they already have a decent place to live. Apart from being a primary need, the residence or house a family lives in can also be an assessment of the social class of the family that occupies it (Safrijal, 2022). Based on table 3, it shows that there are 71.43% included high category with the number of 15 farmers in Matanga sub-district, Polewali Mandar district, meaning that the condition of residence in Matanga sub-district, Polewali Mandar district is very good for the village category, although there are still some respondents who still have cement floors and wooden walls, in the assessment the village community is very good. compared to several residents whose houses are still less livable.

d) Residential Facilities

Living facilities are a very important thing a family in terms of supporting their daily needs. Based on table 10, shows that 100% of farmers in the Matanga sub-district, Polewali Mandar district already have private latrines, electricity, and clean water directly from mountain springs and use gas at home, although they occasionally use firewood because according to the farmers the taste of food cooked in wood more delicious.

e) Health

For health indicators table 10, shows that there are 90.48% included in the high category with 19 farmers, which indicates that their health is guaranteed. Matangnga sub-district has been equipped with health facilities, such as community health centres and Pustu (auxiliary health centres). With these facilities, if a farmer's family member is sick they can immediately be taken to the community health center to receive health services. Apart from that, cocoa farmers who switch to corn farming are also able to pay BPJS taxes every year.

f) Social

The social participation found in cocoa farmer families who switched to corn in Matangnga District is in the high category because 100% of farmers in Matangnga District, Polewali Mandar Regency have a good social life, within the family and in the surrounding community. Based on the results in the field, researchers discovered the fact that in the Matangnga sub-district itself, there are many social activities, including:

- 1) Working together to help one of the farmers clean his land usually called Kesaro, landowners usually provide food and drinks for working farmers.
- 2) If there is a community holding an event, the community works together to help each other
- 3) Religious activities are held once a year by the local government so that teenagers and adults work together with each other help to make it easier for the event to run well.
- 4) Volleyball activities are carried out from mothers to children almost every day in the field

g) Education

The education indicators in Table 10, show that there are 90.48% are in the high category with a total of 19 farmers, meaning that cocoa farmers who have switched to corn farming in the Matanga sub-district, Polewali Mandar district have educational facilities in the form of elementary to high school so that the cocoa farmers who switching to corn farming can send their children to school. To get to a higher level, farmers usually send their children to Polewali Mandar and Majene universities.

h) Public transportation (transportation facilities)

For public transportation indicators (transportation facilities) in Table 10 Shows that there are 66.67% who fall into the high category in terms of numbers 14 farmers means that even though the location is still far from urban areas, members of farming families in Matangnga sub-district, Polewali Mandar district, have no difficulty in getting public transportation when they want to travel to the city.

3. Farmer family income in Matangnga District, Polewali Mandar Regency

The average net income of cocoa farming families in a year after switching to corn farming is IDR 2,885,858 plus rice farming IDR 9,968,196 to IDR 12,854,054 per year. Researchers took rice farming income to see the amount of income of farming families after switching to corn.

D. Conclusion

Cocoa farmers switched to corn due to pests and diseases that attack cocoa plants which cause cocoa beans to become rotten, hard, black and sticky so that cocoa production is low causing farmers' income to decrease greatly so farmers switch to corn with the perception that corn farming provides greater hope for improving the household economy of farmers compared to cocoa farming. The socio-economic impacts obtained in the field by researchers are in the high category with indicators of income, household consumption, living conditions, residential

facilities, health, social community, education and public transportation (transportation facilities). The average net income of cocoa farming families in a year after switching to corn farming is IDR 2,885,858 plus rice farming IDR 9,968,196 to IDR 12,854,054 per year

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