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FACTORS AFFECTING THE FARMING BUSINESS OF COCOA (THEOBROMA CACAO L) FARMERS IN SEPA COUNTRY AMAHEI DISTRICT, CENTRAL MALUKU DISTRICT

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Abstract:

Plantations in Indonesia are dominated by smallholder plantations. This is both a challenge and an opportunity for investors and farmers to develop their businesses and achieve greater added value from cocoa agribusiness. Sepa Country is located in a coastal area with a village community, the majority of whom earn their living as farmers. Workers who work in the agricultural sector earn income which is used to meet living needs and improve household welfare. This research aims to determine the physical and non-physical factors of cocoa in Negeri Sepa, Amahai District, Central Maluku Regency. The method used in this research is quantitative descriptive to explain the factors that influence the farming of cocoa farmers in Sepa Country. Data analysis in this research uses a frequency table. The results of the frequency tabulation show that the factors that influence the farming of cocoa farmers in Negeri Sepa, Amahai District, Central Maluku Regency are physical factors (climatic conditions, soil & topography) and non-physical factors (cocoa farming management, capital, number of workers, transportation, marketing). , Credit Facilities and Technology)

Keywords: Factors, Farming, Cocoa.

INTRODUCTION

The agricultural sector is a mainstay for improving the welfare of some Indonesian people because the majority of Indonesian people live in rural areas and work in the agricultural sector (Putri & Noor, 2018); (Sofia, 2021); . The agricultural sector can also be a basis for developing rural economic activities through the development of agriculture-based businesses, namely agribusiness and agro-industry(Soeharjo & Patong, 2017)

Cocoa (*Thebroma cacao*) or chocolate is one of the main plantation commodities whose role is quite important for the national economy, especially as a provider of employment, a source of income and foreign exchange (Laba & Hafid, 2021); (Glenmore—Banyuwangi, n.d.); (Pratiwi, 2020). Chocolate also plays a role in encouraging regional

development and agro-industrial development. Indonesian cocoa plantations have experienced rapid development since the early 1980s and in 2009, the area of Indonesian cocoa plantations was recorded at 1,587,136 Ha. Most of the 1,491,808 Ha (93.9%) are community plantations. 49,489 Ha of state plantations and 45,839 Ha of large private plantations. Indonesia actually has the potential to become the world's main cocoa producer, if the various main problems facing cocoa plantations can be overcome and cocoa agribusiness is developed and managed well. Relatively stable and high world cocoa prices could influence the expansion of Indonesia's cocoa plantation area, which is predicted to be very high.

The development of cocoa cultivation still experiences several obstacles. Obstacles that are felt are attacks by pests and diseases and inadequate/low human resources (Holle et al., 2023); (Charisma & Sudrajat, 2013a). Most cocoa farmers only get cocoa farming skills inherited from their predecessors and are still traditional (Charisma & Sudrajat, 2013b); (Bahfiarti, 2016); (Sianturi et al., 2020). Plantations in Indonesia are dominated by smallholder plantations. This is both a challenge and an opportunity for investors and farmers to develop their businesses and achieve greater added value from cocoa agribusiness.

Country is located in a coastal area with a village community, the majority of whom earn their living as farmers. Workers who work in agriculture earn income which is used to meet living needs and improve household welfare. Most farmers in Negeri Sepa grow cocoa in their gardens. Cocoa activities for most farmers are a side business after growing cloves and nutmeg, causing agricultural production of cocoa to not be optimal, even though the price of dry cocoa on the market is stable between IDR 15,000 – IDR 20,000/Kg. Working as a farmer is not enough to create a household. Apart from being a cocoa farmer, he also has other jobs, these businesses can be construction workers, fishermen and others. Based on the background above, the author is interested in conducting research with the title "Factors that Influence Cocoa Farmers' Farming in Negeri Sepa, Amahai District, Central Maluku Regency". The research aims to determine the physical and non-physical factors of cocoa in Negeri Sepa, Amahai District, Central Maluku Regency.

Business

According to Sari, (Sari, 2019)that farming science is a science that studies how someone allocates existing resources effectively and efficiently to obtain high profits at a certain time. It is said to be effective if farmers can allocate the resources they have as well as possible, and it can be said to be efficient if the use of these resources produces output that exceeds input.

Prayoga & Sutoyo, (Prayoga & Sutoyo, 2017) define farming as an organization of nature, work and capital aimed at production in the agricultural field. Agricultural

management stands alone and is deliberately carried out by a person or group of people, social groups, both those who are bound together. This business is generally carried out in a narrow area with the aim of meeting family needs. Farming business can only be carried out by the farmers themselves, while outside labor is provided as assistance, especially for main activities or jobs that require more energy than the potential workforce that the farmer has (Rangkuti et al., 2014).

Handoko & Ikaputra, (Handoko & Ikaputra, 2019) revealed that land use economic activities are influenced by factors, namely physical factors which include: Climate which consists of temperature, rainfall, solar radiation and wind, topography, soil, water. Non-physical factors (human factors) include: capital, labor, transportation, curiosity, credit services and technology. Land use must be determined by process policies, namely by combining habits and changes in elements. Policies are used for plant management activities (influenced

by preparation, fertilization, seeding, eradicating pests, labor, agricultural tools and organization). Which will later affect the per capita income point of per capita income. Income can have an impact on poverty and/or welfare. Farmers' welfare can occur if there are new innovations in agriculture, while poverty will occur for farmers if there are no new innovations or stagnation.

Currently, farming has become very important, especially in the scope of national development because farming can absorb labor. Farming is a mainstay of food self-sufficiency and a provider of finished commodities and industrial materials for domestic and export purposes. The majority of the Indonesian population depends on farming for their livelihoods now and in the future. The Indonesian population is the support for development to realize the ideals of the proclamation, prosperity and social justice.

a. Physical Factors That Influence Cocoa Farming

1) Climatic conditions

Climate directly influences soil temperature and its relationship to the soil arm and indirectly through plant factors. Climate factors that are important for the growth of cocoa plants include:

a. Sunlight

Sunlight is a source of energy that causes plants to form sugar. This event is called photosynthesis. Without the help of sunlight, plants cannot cook food that is absorbed from the soil, which results in plants becoming fat or dying (AJAR, n.d.).

b. Temperature

Temperature or temperature is the degree of hotness or coldness measured based on a certain scale using a thermometer. The temperature unit commonly

used is degrees Celsius (°C), whereas in the UK and several other countries it is expressed in Faranheit. (°F) (APRIYANTO, 2015).

Seasonal temperature fluctuations for each location in Indonesia are very small. Temperature variations in Indonesia are more influenced by altitude . The maximum temperature in Indonesia decreases by 0.6° C for every 100 m increase in elevation, while the minimum temperature decreases by 0.5° C with an increase of 100 meters. The highest maximum temperature is generally reached around October (at the end of the dry season) and the lowest minimum temperature is around July and August.

c. Rainfall

Rainfall is the amount of water that falls at a certain time. The level of rainfall in agriculture will influence the types of plants cultivated and the irrigation techniques used. Schmid - Fergusson classifies climate based on the ratio (Q) of the number of dry months and alkaline months in one year.

Q = <u>Average number of dry months</u> x 100% Average number of wets

Based on this Q value, Indonesia's territory is divided into 8 climate zones. Climate Classification According to Schmidt – Fergusson can be seen in the following table:

Table 1. Climate zones based on Schmidt-Fergusson

Rain Type	Q value (%)	Meaning of Symbols
А	0 ≤ Q < 0.143	Really wet
В	0.143 ≤ Q < 0.333	Wet
С	0.333 ≤ Q < 0.600	A bit wet
D	0.600 ≤ Q <1.000	Currently
Е	1,000 ≤ Q < 1,670	A bit dry
F	1,670 ≤ Q < 3,000	Dry
G	3,000 ≤ Q < 7,000	Very dry
Н	7,000-≤ Q < -	Amazingly dry

Source: Acne Gunarsih Kartasapoetra, 2006

d. Wind velocity

Wind is the movement or transfer of air masses from one place to another horizontally. Air masses are air in very large sizes that have uniform physical properties (temperature and humidity) in a horizontal direction.

Wind is an important element for plants. Wind can regulate evaporation/temperature, help pollination, help water vapor, and carry gases that are really needed by plants.

2) Land

According to Iriyanto, (2021), soil consists of mineral and organic particles of various sizes. These particles are arranged in the form of a matrix with approximately 50% pores, some filled with water and some filled with air. Essentially, all land use is influenced by the special properties of the soil. Physical soil properties that influence include: texture, structure, infiltration and organic matter content.

a. Soil texture

Rocks and minerals that experience weathering both physically and chemically produce particles of various sizes, ranging from the size of stone, gravel, sand, clay to clay. The classification of soil material includes mineral particles that have a diameter smaller than 2 mm, or more than gravel. Soil particles include sand, clay or loam, and see. Soil texture is the relative comparison of various large groups of soil particles in a soil mass, especially the comparison between clay, clay and sand fractions.

b. Soil structure

Soil structure is used to explain the arrangement of soil particles, the point of soil structure consisting of macro structure and micro structure. Macro structure is the arrangement of soil aggregates with each other, while micro structure is the arrangement of primary soil grains (sand, clay and clay). into secondary particles called peds or aggregates. Based on the type and position of the aggregate, the microstructure can be divided into three groups, namely loose-crumbs, medium-crumbs, medium-sticky-sticky.

c. Infiltration

Infiltration is the event of water entering the soil through the soil surface vertically. Meanwhile, the amount of water that enters through the soil surface per unit time is known as the infiltration rate. The infiltration rate value is very dependent on the infiltration capacity, namely the ability of the soil to pass water vertically from the soil surface

d. Organic material content

Organic material is generally found on the surface of the soil or top soil layer. The amount of organic matter is not large, ranging from 3 - 5%, but it plays an important role in determining soil properties, and in agriculture, especially for plant growth. The effect of organic matter on soil properties and plant growth is:

- 1. Granulator properties, namely improving soil structure.
- 2. Sources of nutrients, namely N, P, S, micro elements and others.
- 3. Increases the soil's ability to hold water.
- 4. Increases the soil's ability to hold nutrients, cation exchange capacity become high.
- 5. Source of energy for microorganisms.

e. Land relief

According to Novarina, (Novarina, 2022) The degree of slope and length of the slope are the two main characteristics that influence erosion. The steeper and longer the slope, the greater the speed of surface water flow and the danger of erosion (Mali et al., 2017).

Flat or sloping land has a lower water flow velocity compared to sloping land, the sloping topographic point exacerbates water erosion and can limit the depth of the solum.

The flat topography means a lot of rainwater seeps into the soil and causes hydrolysis and leaching processes to occur. If the parent material cannot or is difficult for water to penetrate, the soil above it will remain moist or alkaline for a certain period of time and will have rainfall that is greater than the evaporation of water from the soil.

b. Non-Physical Factors That Influence Cocoa Farming

According to Managanta et al., (2018)Non-physical factors that influence cocoa farming are as follows:

1. Capital

Capital is an important basic element of farming business. According to economic understanding, models are goods or money that together with other production factors and labor and processing produce new goods, namely agricultural production.

In farming, what is meant by capital is:

- a. Land
- b. Buildings
- c. Agricultural tools
- d. Agricultural materials
- e. Plants, livestock and fish in ponds

- f. Receivables from the bank
- g. Cash

Models based on their nature can be divided into 2, namely: fixed capital and movable capital. The fixed capital point can be defined as capital that does not run out in one production period. The fixed starting point includes land, buildings. The movable moral point includes tools, materials, cash, receivables in banks, crops, livestock, fish in ponds. This type of capital is used up or considered to be used up in one production period.

Based on the source, capital sources can be divided into:

- a) One's own
- b) Loan or credit
- c) Inheritance gift
- d) From other businesses
- e) Contract or lease

2. Labor

Human labor can do all types of farming work based on their level of ability. Human work is influenced by:

- a) Age
- b) Education
- c) Skills
- d) Experience
- e) Adequacy level
- f) Health level
- g) Natural factors such as climate and farming land conditions.

Farming labor can be obtained from within the family from outside the family. The point of labor outside the family is obtained by:

a. Wages

The open workforce is varied, varying from one place to another. Wages are generally irrational because capacity is not measured clearly but is calculated equally for each worker. Wages for men are different from those for women and children. Labor wages are also different for one job or another. Wages can be paid daily or weekly or after work is finished, or even in piecework. These wages can also be paid in kind.

b. Splice

Workers outside the family using a friendship or mutual assistance system, including point farmers, are generally not based on economic considerations. This

system is more tied to customs, the point at which this system begins to be found when there are labor and economic difficulties.

c. Workforce gathering

Each social gathering participant will return in the form of labor to the other members

3. Transportation

Existing transportation and communication facilities will make it easier for farmers to contact the outside world, such as markets. Information regarding government policy can be used by farmers as material for consideration in their farming business. Physical developments in the world such as technology and other social communications will make it easier for farmers to manage farming businesses. Farmers in carrying out agricultural business will not live isolated in limitations and ignorance.

4. Marketing

The marketing aspect is a problem outside of farming that needs to be considered, but farmers are currently in position 5 in terms of supply and competition, especially regarding the sale of produce and the purchase of agricultural materials. The farmer does not determine the price of the product. Farmers must be forced to accept what they want from buying and selling. Middlemen play a large role in the sales aspect of farming products

5. Credit facilities

As a result of the scarcity of farming capital, credit has become important. The government needs to provide credit facilities to farmers with conditions that are easy to reach (available at the farming location). Such conditions do not yet fully exist, as well as easy procedures and relatively low interest rates. The reasons why farmers do not use credit facilities provided by the government are: guarantees and interest which are considered too high.

RESEARCH METHODS

The data collection method used in this research includes primary data and secondary data. Primary data was obtained through direct interviews with respondents using questionnaires, while secondary data was obtained from agencies related to the research problem.

The research implementation procedure consists of several stages. First, the research location was determined purposively with the consideration that cocoa farming in Sepa Country is one of the dominant types of farming and is the livelihood of the population,

with diversification efforts with other crops. Second, the respondents in this research were people who cultivate cocoa plants as a source of income, selected proportionally as many as 70 people. Third, the questionnaire is structured systematically with several questions that pay attention to the relationship between the questions and the substance of the research.

Research variables and operational definitions of variables are based on concepts that vary by more than one value. Variables in the study include physical factors such as soil, climate conditions, sunlight, temperature and rainfall. Apart from that, non-physical factors that support cocoa farming include plant processing, capital, number of workers, transportation, marketing, credit facilities, and technology used in cocoa farming. All of these variables are the focus of research to explore relevant information in the context of this research. The data analysis technique used in this research is quantitative descriptive to explain the factors that influence the farming of cocoa farmers in Sepa Country.

RESULTS AND DISCUSSION

Respondent Characteristics

The characteristics of respondents in this study include the respondent's age, gender, marital status, respondent's education level, number of family dependents, and length of time working as a cocoa farmer.

a. Age

Age greatly influences a person's physical ability to manage their farming business, a person's work ability will increase at a certain age level and then decrease. Generally, young farmers have better physical abilities than older farmers, but older farmers usually have better experience. Likewise, in the process of accepting new things, young farmers are more dynamic and have the courage to overcome the risk of failure, thus young farmers will develop more quickly than older ones.

According to Edy, (2017) regarding the age range of agricultural workers, ages 15-54 years are categorized as productive age, while 0 - 14 years and 55 years and above are categorized as non-productive/less productive age. The age distribution of respondents can be seen in the following table:

	<u>'</u>	
Age Level (Years)	Frequency	Presentation
< 40	3	12.0
40 – 50	14	56.0
51- 65	7	28.0

Table 2. Sepa State Cocoa Farmers

> 65	1	4.0
Amount	25	100

Source: Primary Data 2021

The research results show that the age of respondent farmers in Negeri Sepa is between 35 years to 70 years or the majority of cocoa farmers are of productive age, namely 40-10 years old or 56.0%, this shows that respondent farmers are of productive age.

b. Level of education

The level of education can influence a person's mindset in the process of accepting innovation or new technology. Relatively high education allows someone to have relatively more knowledge and a broader mindset, so that they are expected to be able to carry out activities to improve their business in a more efficient direction.

Farmers can obtain education from 3 sources, namely formal, non-formal and informal sources. Formal education is education obtained from school such as elementary school, junior high school, general secondary school and college. Meanwhile, non-formal education is education obtained through courses or training and informal education is education obtained by someone from experience. Formal, non-formal and informal education obtained can influence a farmer's ability to manage farming.

Table 3: Education Level of Cocoa Farmers

Level of education	Frequency	Percentage
elementary school	6	16.0
JUNIOR HIGH SCHOOL	4	24.0
SENIOR HIGH SCHOOL	15	60.0
PT/Academic	-	-
Amount	25	100

Source: Primary Data 2021

The results of the research show that the formal education that the respondent farmers have undergone varies from elementary school, middle school and high school or most have graduated from high school. With this level of education, it is hoped that they will be able to absorb new information and technology in order to develop their business in a more advanced direction.

c. Number of Family Members

The number of family members referred to in this case is the number of people living in one household who choose to live in one processing unit. The number of family members will be in line with the needs that must be met, where as the number of family members increases, the needs that must be met will automatically increase. Apart from that, the number of family members influences the availability of labor so that farmers who have relatively more family members also have greater labor availability.

According to Soeharjo and P atong (1984), farming experience can be said to be sufficient if you have been working in your field of work for 5 - 10 years, 10 years or more is categorized as experienced and less than 5 years is categorized as less experienced.

 Years of farming (Years)
 Frequency
 Percentage

 < 5</td>
 0
 0

 5 - 10
 17
 68

 > 10
 8
 32

 Amount
 25
 100

Table 4: Length of time working as a farmer

Source: Primary Data 2021

The table above shows that the farming experience of respondent farmers in Sepa country ranges from 10 years to 18 years or an average of 11.8 years. This shows that the average respondent farmer in the country is quite experienced in managing their farming business.

Physical and Non-Physical Factors that Influence Cocoa Farming Business

a. Physical Factors

The suitability of the land greatly influences the success or failure of a farming business. The points of suitability of land for cocoa farming are as follows:

1. Type of soil

Cocoa plants can grow and produce well in latosol, red yellow potsolic and andosol soil types. The types of soil in Sepa are soil or sol and andosol. This type of soil is suitable for cocoa plants.

2. Water

Cocoa plants need an adequate water supply to avoid flooding and water that is favorable, water conditions in this country are good and never flood or have calm water. These conditions are suitable for cocoa plants.

3. Aeration and drainage

Good aeration and drainage are needed for the survival of cocoa plants. Sepa country has moderate aeration and drainage conditions which are also suitable for cocoa plants.

4. PH

The pH or (soil acidity) suitable for cocoa plants is 5.6 - 6.8. Soil in this country has a pH of 5.6, this pH point is suitable for the growth of cocoa plants

5. Temperature

Cocoa plants can grow and develop at optimal temperatures, which range between 22.50 $^{\rm o}$ C - 30.50 $^{\rm o}$ C, the country's temperature is 26.2 $^{\rm o}$ C. This condition is suitable for cocoa plants

6. Rainfall

The ideal rainfall for cocoa plants is in areas with rainfall between 1,100 - 3,000 mm per year. Rainfall in the country is 2,416 mm/year. This rainfall is suitable for the growth of cocoa plants

Non-Physical Factors

1. Cocoa Farming Management

a. Cocoa Plant Nursery

The results of the research show that the origin of the seeds planted by farmers in Sepa Country generally comes from government assistance through the Central Maluku Regency forestry and plantation service and the Maluku Provincial Service which provides assistance with cocoa seeds. This was the beginning of the planting of cocoa trees in Negeri Sepa.

b. Plantation Land Management

- Land Preparation

Whether farmers carry out land preparation or not can be known by asking cocoa farmers, it can be seen in the following table:

Table 5: Land Preparation

Land Preparation	Frequency	Percentage (%)
Preparation of planting land	25	100
Not doing land preparation	0	0
Amount	25	100

Source: Primary Data 2021

The research results showed that all respondents or 100% carried out land preparation before planting cocoa. Land preparation activities include clearing the land from bushes and weeds by means of bricklaying. This method is used to reduce the struggle for nutrients between cocoa plants and weeds.

Shade tree

Whether farmers fail to provide shade trees or not can be determined from research. The shade trees provided by farmers for cocoa plants can be seen in the following table:

Table 6: Use of Shade Trees

Use of Shade Trees	Frequency	Percentage (%)
Using Shade Trees	25	100
Not Using Shade Trees	0	0
Amount	25	100

Source: Primary Data 2021

Based on research, it can be seen that all respondents are 100%. Provide shade trees for their cocoa plants. Respondents felt it was necessary to provide shade trees for the survival of cocoa plants. Shade trees function to regulate the intensity of sunlight, temperature, air humidity, wind, add nutrients and organic material, suppress the growth of weeds and improve soil structure. The types of shade plants used by respondents are banana trees and coconuts.

Planting

Based on the research, it can be seen that all respondents planted cocoa seedlings at the end of the rainy season, namely between September and February. This was done by respondents to prevent the planted seeds from dying. Planting is carried out in the plant holes that have been provided. The seeds planted should be old enough or between 6 - 12 months old and have been selected first.

Fertilization

The research results showed that all respondents or 100% did not use fertilizer on cocoa plants. This is because farmers do not understand the benefits of fertilizer for cocoa plants, besides that there is no cost to buy fertilizer so farmers let their cocoa plants grow naturally. This causes relatively low cocoa production and many plants are damaged due to pest and disease attacks.

- Maintenance

The research results show that the respondent farmers relatively carry out maintenance by relying on rainwater as a source of irrigation. Respondent farmers prefer to use rainwater for irrigation so that during the dry season the cocoa trees do not become dependent on water.

Meanwhile, pruning is always carried out by the respondent farmers, the pruning points are carried out to obtain a balanced and sturdy canopy and reduce humidity, the pruning points also make it easier for farmers to maintain and carry out the cocoa harvest. Regular pruning can increase the production of good quality cocoa.

Pest and Disease Control

Cocoa plants in Negeri Sepa are very vulnerable to pests and disease. Pests and diseases that attack cocoa plants can be seen in the following table

Table 7: Types of Pests and Diseases That Attack Cocoa Plants

No	Types of pests and diseases	Frequency	Percentage
1	Mold	0	0
2	Stem Borer	5	20
3	Fruit Borer	15	60
4	Stem Borer + Fruit Borer	0	0
5	Fruit Hardening (Anthracnose)	0	0
6	Fruit Rot Disease	5	20
7	Stem Cancer	0	0
8	Fruit Rot + Stem Cancer	0	0
9	Helopeltis (Fruit-sucking Ladybug)	0	0
	Amount	25	100

Source: Primary Data 2021

Based on the table above, it can be seen that 20% of the respondents stated that their cocoa plants were attacked by stem borers and fruit rot, while 60% of the respondent farmers had their cocoa plants splashed with cocoa fruit borers (PBK). This level of PBK pest attacks has not been prevented by farmers so that the production produced in one harvest season is relatively low.

2. Harvesting and Post-Harvest Management of Cocoa Beans

a. Harvest Cocoa Beans

The frequency of harvesting carried out by respondents can be seen in the following table;

Table 8: Frequency of Harvesting Cocoa Fruit

Harvesting Frequency	Frequency	Percentage (%)
/Month		

< 2 times Harvesting/month	0	0
2-3 times harvesting/month	0	0
3-4 Times Harvesting/month	0	0
4 > Harvesting Times/month	100	100
Amount	25	100

Source: Primary Data 2021

Based on the table above, it can be seen that 100% of respondents carry out harvesting more than 4 times a month. A good harvest frequency is 6 times, that is, every 5 days the cocoa pods are harvested, the aim is to avoid fruit rot on the cocoa tree.

b. Post-Harvest Processing of Cocoa Beans

The results of the research show that all respondent farmers in my country, after breaking the cocoa pods, put the beans in sacks and then press them with a board loaded with stones. The aim is to reduce the pulp content in the cocoa beans. This process point is left for 1 day, then washed until half clean and then dried in the sun.

3. Marketing

Respondent farmers market Cocoa as in the following table:

Table 9: Marketing of Cocoa Products

Marketing	Frequency	Percentage
Collector traders	25	100
Market	0	0
Cooperative	0	0
Amount	25	100

Source: Primary Data 2021

Based on the table above, it can be seen that of the 25 respondents, 100% answered that they marketed dried cocoa to collecting traders in Masohi City. Cocoa selling prices vary from Rp. $15,000 - \text{Rp.}\ 20,000$ depending on the quality, for quality 1 the price is Rp. 20,000

- Capital

Capital is goods or money that together with other factors of production and labor and management produce new goods, namely agricultural production.

The capital referred to in this research is point land. Based on the research, it can be seen that the land used by all respondents carrying out failed farming activities was on their own land with an area ranging from 1-1.5 Ha. Apart from land which is the main capital, farmers also have agricultural tools which are usually used in managing cocoa farming.

- Total manpower

The number of workers involved in managing Cocoa can be seen in the following table:

 Number of Workers (People)
 Frequency
 Percentage

 < 2</td>
 0
 0

 3
 0
 0

 >b 3
 0
 0

 Do it by yourself
 25
 100

Table 10. Number of Workers

Source: Primary Data 2021

Amount

From the table above, it shows that 25 of the respondent farmers or 100% do not use labor outside the family or rent, the existing labor comes from family members themselves , so that labor costs are no longer incurred for the cocoa farming production process.

25

100

- Transportation

The type of transportation used by respondent farmers to market cocoa is public transportation. The results of the research show that transportation where the respondents live is relatively smooth because the main road route passes through Negeri Sepa so that as many as 25 respondents or 100% use public transportation to market their cocoa products to collecting traders for sale.

- Credit Facilities

Based on the research results, data was obtained that all or 100% of the respondent farmers in cocoa farming had not used credit facilities. Farmers are reluctant to use existing credit facilities because they think the loan interest is too high and the procedures set by credit providers (banks) are complicated so that the respondent farmers prefer not to take credit.

- Technology used

Based on research, it is known that the technology used by respondent farmers for cocoa farming is still simple technology. This can be seen by the

management of cocoa plants from seeding to harvest which is still done manually, without using fertilizers or medicines to eradicate pests.

The source of information on the knowledge of respondent farmers in cocoa farming was obtained from counseling conducted by PPL from the Food Security and Extension Agency of Central Maluku Regency. Apart from PPL, there are also those who study on their own. This can increase knowledge about how to farm cocoa.

CONCLUSION

The conclusions that can be drawn from this research are: (1) When viewed in terms of climate, topography and soil, the physical factors of the research area, namely Negeri Sepa, Amahai District, are suitable for cultivating cocoa plants. (2) Non-physical factors in the research area that are related to cocoa farming are: (a) Capital (b) Labor (c) Transportation (d) Marketing e) Credit facilities (f) Technology. (3) Cocoa Farming Management

The majority of farmers obtain cocoa seeds from government assistance, where the management of cocoa farming is carried out using traditional methods, namely cutting weeds to reduce competition for nutrients. Farmers also provide supporting trees for the survival of Cocoa. Planting is carried out at the end of the rainy season, namely September. In general, respondent farmers do not use fertilizer, do not carry out irrigation and do not use pest and disease control drugs. Pest and disease control is only done by pruning. Meanwhile respondents usually harvest 3-4 times every month. Cocoa beans are processed by washing and drying them and then selling them to the market.

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