

## The Role of Shifting Cultivation Farming Systems in Meeting Family Food Security

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### ABSTRACT

*This study is a qualitative study with a descriptive approach that aims to describe one by one the main topics in this article in detail. The main topics referred to in this article are the shifting farming system and family food security. The data used in this study are secondary data that researchers obtained indirectly from books, scientific articles, magazines, and other sources that are usually obtained in research. The data obtained were analyzed by stages of data collection, data selection, data reduction, and drawing conclusions. The result in this article show that the shifting farming system is basically more productive in producing food products because the newly planted land and not yet mixed with chemicals will be more fertile and produce rice or other crops of better quality and more. However, the challenge here is that the shifting farming system requires a large area of land and over time the land continues to decrease. This is a disadvantage of the shifting farming system. Based on this, researchers assess that the role of the shifting farming system to meet household food needs can work well if it is only suitable for application in areas that are not densely populated.*

**Keywords:** Financial Performance, Good Corporate Governance, Company Value



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### INTRODUCTION

Shifting cultivation, rotational farming or slash and burn farming in English are equivalent to the terms shifting cultivation, rotary cultivation, slash and burn cultivation, shifting field agriculture, swidden farming, slash and burn farming and swidden agriculture. In some places, other terms are also known, namely jhum (in India), bhasme or khoriya (in Nepal), kaingin (in the Philippines), and chena (in Sri Lanka) (Aminuddin 2019). However, these terms refer to more or less the same meaning, namely an agricultural system in a forest area whose core activities include cutting, burning and planting.

According to (Adimihardja 2016) that "swidden agriculture is a system in which farmer cuts a plot of land in the forest, allows the vegetation to dry and then burns it before planting a crop". According to (Fajriany 2017) defines "Shifting cultivation is commonly defined as clearing trees and then cultivating this land for one or more years

before abandoning it in favor of others patches". If Rambo emphasizes the practice of cutting, drying, burning and planting from shifting cultivation, then Seavoy emphasizes more on the practice of cutting trees and cultivating the land for several years before being abandoned.

Slightly different from (Adimihardja 2016) and (Fajriany 2017) above, (Chiron 2014)) said that basically shifting cultivation is a form of land use that is often associated with traditional communities in or around forests that live relatively isolated. Shifting cultivation is more characterized by the existence of a recycling pattern of land use rather than the type of plant produced from the land in question, and slash-and-burn techniques are often applied. Meanwhile, (Styger 2007) stated that in general there are four characteristics of cultivation, namely carried out in arid tropical land; using elementary agricultural techniques without using tools except axes; occurring in communities with low population density, and in communities with low consumption levels. Gourou emphasizes the traditional and subsistence nature of shifting cultivation practices.

Meanwhile, (El-Dessouki 2014) stated that shifting cultivation is carried out in an area in the forest or in the savanna that is cleared (felled and burned), planted one to three times a year. Then the land is left for a long time (10-15 years), so that it becomes a forest again. After that, the former forest field is opened or cultivated like the initial cycle. Koentjaraningrat emphasizes more on the aspect of the existence of a cycle in the practice of shifting cultivation. Meanwhile, (Altieri 1982) said that there are three basic phases of the shifting cultivation practice, namely the felling/clearing phase, the processing/planting phase and the resting/leaving phase of the former shifting cultivation area temporarily. As he said: "... the basic phases of shifting cultivation systems are the following (1) conversion, (2) cultivation, and (3) fallow."

A more detailed explanation of shifting cultivation, especially in the Tolaki Tribe—an ethnic group that will be the main target of this research—is found in the writing of (Soeprbowati 2010). They say that shifting cultivation (*monda'u*) is a form of farming effort carried out by cutting down trees and burning them with the following stages: *monggiikii ando'olo* (selecting a farming location); *mohoto o wuta* (pre-*monda'u* ceremony); *mosalei* (cutting down small trees, cutting down roots, etc.); *monduehi* (cutting down large trees); *humunu* (burning); *mo'enggai* (clearing up the remains of the burning); *motasu* (planting rice); *mosaira and mete'ia* (clearing grass and guarding plants); *mosowi* (harvesting), and; *molonggo* (putting into the barn) (Sulistinah 2014).

On the one hand, a number of perspectives consider the shifting farming system effective in increasing food security and have been carried out for hundreds to thousands of years. However, on the other hand, they consider this system to be ineffective and the modern and permanent farming system is the most effective. Based on this, researchers are interested in analyzing the role of the shifting farming system in

meeting family food security.

## METHODS

Based on the above explanation, it can be concluded that this article aims to analyze the role of the shifting farming system in meeting the food needs of families in Indonesia (Rifki 2017). Through the color of the words in the previous line and in the introduction above, it can be concluded that this study is a qualitative study with a descriptive approach that aims to describe one by one the main topics in this article in detail (Goretti, Eviliyanto, and Bayuardi 2023). The main topics referred to in this article are the shifting farming system and family food security (Rukin 2019). The data used in this study are secondary data that researchers obtained indirectly from books, scientific articles, magazines, and other sources that are usually obtained in research (Imam Gunawan 2014). The data obtained were analyzed by stages of data collection, data selection, data reduction, and drawing conclusions (Nartin et al. 2024).

## RESULTS AND DISCUSSIONS

### Shifting Cultivation Farming Systems

Shifting cultivation, rotational farming or slash and burn farming in English are equivalent to the terms shifting cultivation, rotary cultivation, slash and burn cultivation, shifting field agriculture, swidden farming, slash and burn farming and swidden agriculture. In some places, other terms are also known, namely jhum (in India), bhasme or khoriya (in Nepal), kaingin (in the Philippines), and chena (in Sri Lanka) (Aminuddin 2019). However, these terms refer to more or less the same meaning, namely an agricultural system in a forest area whose core activities include cutting, burning and planting.

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A more detailed explanation of shifting cultivation, especially in the Tolaki Tribe—an ethnic group that will be the main target of this research—is found in the writing of (Soeprbowati 2010). They say that shifting cultivation (*monda'u*) is a form of farming effort carried out by cutting down trees and burning them with the following stages: *monggiikii ando'olo* (selecting a farming location); *mohoto o wuta* (pre-*monda'u* ceremony); *mosalei* (cutting down small trees, cutting down roots, etc.); *monduehi* (cutting down large trees); *humunu* (burning); *mo'enggai* (clearing up the remains of the burning); *motasu* (planting rice); *mosaira and mete'ia* (clearing grass and guarding plants); *mosowi* (harvesting), and; *molonggo* (putting into the barn) (Sulistinah 2014).

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### **The Role of Shifting Cultivation Farming Systems in Meeting Family Food Security**

Most people assume that the shifting cultivation system is very unproductive and can only support the needs of a small human population. Another assumption circulating in modern society regarding the low productivity of shifting cultivation is because the system that applies in indigenous communities is indeed only inhabited by a small portion of the human population. However, in reality the shifting cultivation system is a very productive system. In Kalimantan, shifting cultivation can support 23 people per 0.1 ha of land. In Mesoamerica, shifting cultivation by the Mayan people can support 100 to 200 people in 0.1 ha and 700 to 1150 people per 1 ha (Thrupp 1997).

On the contrary, modern farming systems are often less efficient than shifting cultivation systems. In modern farming systems, rice fields are often intensively fertilized. If the calculation is used to obtain net profit, then the modern farming system requires greater costs than the shifting cultivation system. The modern farming system that is developing in Bawen District is able to produce an average of 10,000 tons of rice per year. In 2011, the rice produced in Bawen District reached 10,847 tons. According to the Central Statistics Agency, each person in Indonesia in 2011 consumed 1.72 kg of rice per week, then in 1 year in Bawen District with a population of 53,859, they were able to consume 92,637 tons of rice per week. If the calculation is only taken into account for the farming community, then with the number of farmers 4702 people, the weekly rice consumption in Bawen District reaches 8022 tons, or equivalent to 385,059.8 tons per year. The figures obtained show that rice consumption by farmers in Bawen District is 385 times higher than the rice production produced by farmers each year. The low rice production compared to the level of rice consumption is caused by the decreasing land area for rice farmers. Figure 2 shows that the land area tends to remain the same, without increasing or decreasing in area. However, rice production in 2011 to 2015 in Bawen District tends to fluctuate each year. Fluctuations in rice production in Bawen District are related to the season, land productivity level, and pest attacks. Pests that attack rice are relatively unpredictable and difficult to control (Miracle 1967).

Based on the explanation above, it can be concluded that the shifting farming system is basically more productive in producing food products because the newly planted land and not yet mixed with chemicals will be more fertile and produce rice or other crops of better quality and more. However, the challenge here is that the shifting farming system requires a large area of land and over time the land continues to decrease. This is a disadvantage of the shifting farming system. Based on this, researchers assess that the role of the shifting farming system to meet household food needs can work well if it is only suitable for application in areas that are not densely populated.

## CONCLUSION

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