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Farmer Adaptation Strategy to Their Environment in the Village of Makoro Binongko Wakatobi

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ABSTRACT

This study aims to determine the adaptation strategies of farmers to their environment in Makoro Village, Binongko District, Wakatobi Regency. This research is qualitative research with the technique of determining informants by purposive sampling. Data collection techniques through observation, in-depth interviews, and documentation. Analysis techniques are the data collected selectively separated, processing by editing process and analyzing the data that has been obtained descriptively. The results showed that the farmers' adaptation strategy to their environment was carried out through First, the strategy of tying the belt tighter or the strategy of self-limiting, ie the farmers did a strategy by eating once a day; Second, alternative subsistence strategies, where farmers and farmer families do odd jobs or become casual workers, such as fishing, digging wells, helping people package ice cubes for fish sent to Bau-Bau City, burning charcoal after it is sold to blacksmiths, selling wood, taking stones and sand, and making machetes and knives for sale; and Third, the strategy to build relationships, where farmers build a lot of networks with institutions outside the family environment. If they are in trouble then this network can be used to overcome various existing problems such as building relationships with relatives, village friends, or influential people in the village.

INTRODUCTION

Indonesia is known as an agricultural country where most of the people work as farmers. Soil conditions are fertile, natural conditions are supportive, wide expanse of land, abundant biodiversity, and a tropical climate where sunlight occurs throughout the year so that it can plant all year round. The reality of natural resources like this should be able to awaken Indonesia to become a prosperous country, sufficient to meet the food needs of all its citizens.

In society, working as a farmer is still considered a side job, with low income so that many farmers are still categorized as poor farmers. Meanwhile, farmers who are married should meet family needs such as food needs (food needs), clothing needs, housing needs, and other life necessities.

Samsudin (1982) states that farmers are those who temporarily or permanently control a plot of land, control a branch or several branches of farming and work on their own, either with their labor or paid labor. Semntara Adiwilangga (1992) suggests that a farmer is a person who does farming from his agricultural land or raises livestock and the produce is sold to make ends meet.

Scott (1989) states that farmers prefer to minimize the occurrence of disasters rather than maximize their average income; this is what Scott calls risk-averse. Farmers behave as survival farmers so that all the demands for the survival of their families can be fulfilled. According to Akasiro (2010), farmers survive to the best of their ability and then decide on isolation which hinders survivors' communication with the general public.

In difficult circumstances, humans must be able to adapt to new conditions and new

environments. According to Vayda and Rappaport in Mulyadi (2007), human adaptation can be seen both functionally and processually. Functional adaptation is the response of each organism or system that aims to maintain stable conditions. Meanwhile, processual adaptation is a behavior system that is formed as a result of the process of human adjustment to changes in the environment around it.

The adaptation process is one part of the process of cultural evolution, a process that includes a series of human efforts to adapt or respond to changes in the physical environment. The adaptation process is one part of the process of cultural evolution, which is a process that includes a series of human efforts to adapt to or respond to changes in the physical and social environment that occur temporally. Environmental changes that greatly affect human adaptation are environmental changes in the form of disasters, namely events that pose a threat to the survival of organisms, including humans.

The survival strategy is one of the morals of traditional farmers who "prioritize safety" (safety-first). For poor farmers who are socially and economically very vulnerable, the decline or even failure of the harvest will have a negative impact on the survival of their families. This subsistence and safety morality is what is called the 'safety first' principle, namely that farmers avoid risks and focus on the possibility of a decline in yields, not on maximizing profits. The subsistence economic system is different from the market economy system which is oriented towards obtaining large profits which tends to ignore the interests of the economically weak community. New innovations in agriculture, for example, are also considered to threaten the security of subsistence, so they are always rejected and avoided (Scott, 1976).

Rochbini (1990) says that farmers do not have economic rationality, but rather base themselves on a more dominant social interest that stands out, where social affirmation and kinship can defeat rational relations.

Popkin (1979) assumes that the economic life of farmers is strongly influenced by individual decisions in facing challenges. Through individual analysis, generalizations can be made about farmers' views on the market economy, courage to speculate,

face risks, patron-client relationships, conflicts that occur, and so on.

In meeting the basic needs of life, a substantial issue that is always faced by a family or household is how the individuals in it can try their best and can work together to meet household needs so that their survival is maintained. Each member of the farmer's household can earn income which functions to maintain survival together. In such a situation, the working division system is flexible. This paper aims to explore in detail how farmers adapt strategies to the environment, what farmers can do to maintain the lives of all members of their families.

MATERIALS AND METHODS

The research that has been carried out in Makoro Village, Binongko District, Wakatobi Regency is a qualitative descriptive study. Qualitative research according to Bogdan Taylor (in Thohirin, 2013) is a research procedure that produces descriptive data in the form of written or spoken words from people and observable behavior. The technique of determining informants using the purposive sampling technique (2009). The main informants in this study are people who work as farmers.

Methods of data collection through observation, in-depth interviews, and documentation. Data analysis techniques were carried out selectively according to the problems raised in the study. After that, the editing process is carried out, namely by re-examining the data obtained, whether the data is good enough, and can be immediately prepared for the next process (Koentjaraningrat, 1997). Systematically and consistently, the data obtained is poured into a conceptual design which is then used as the main basis for providing analysis.

RESULTS AND DISCUSSION

The environmental conditions that are rocky greatly affect social welfare among the farming community and are also felt by those who live in the area of Makoro Village, Binongko District, Wakatobi Regency, even though the environment is rocky as a farmer who makes ends meet from agricultural produce, farmers in Makoro Village do not just give up with the environmental conditions, so that farmers grow their crops in rock crevices with soils and a tropical climate (rainfed system)

during the rainy season. When farmers finish planting their crops, they wait for the dry season to harvest their crops. Farmers harvest their crops in the rotation because some plants are harvested for only a few months and some are harvested within one year. Some of the crops obtained within a few months are stored for consumption and the rest is sold to obtain money so that they can buy other necessities. For crops that are harvested within one year, the farmer waits for a time by doing other work to increase income for his family. The income that farmers get from their agricultural products is uncertain. In such a situation, the households of the peasant community will always be faced with a crucial problem in their life, namely the struggle to fulfill their daily needs. The income from agricultural products has not been able to meet the needs of all the farming families.

To overcome this, it is necessary to think of strategies to overcome the problems of socio-economic life faced by the farming community. The following will explain the adaptation strategies carried out by the farming community in Makoro Village, Binongko District based on the three main premises of James Scott's theory of surviving mechanisms (survival strategies) which are described one by one by the authors and linked to the data found during the study.

1. Reducing Expenditure Strategy

The first premise of James Scott's theory is to tie the belt tighter or it can be said to be a self-limiting strategy (reducing expenditure on clothing and food by eating only once a day and switching to lower quality foods).

In this first premise, it can be said that Scott wants to explain how the survival strategy is carried out by farmers based on the income he gets in one day or a month.

The relationship with this study which discusses the peasant community, it can be explained that the farming community chooses to survive by running a frugal lifestyle. Farming communities reduce their food rations in one day, meaning that the poor try to adjust their diet so that their food rations do not increase.

Frugal attitude in the fulfillment of food needs (eating and drinking) can be seen from the way of farming families who get used to eating with side dishes. This frugal way of life is considered able to save families from food shortages and hunger in

daily life. Belt-tying strategy is tighter or can be said to limit yourself by doing a frugal attitude in terms of food seen in the habits of farming families who get used to eating roughly as it is but in terms of the number of meals still eat three meals a day that is by consuming side dishes rough. As for the fulfillment of meat, needs are usually met on religious holidays such as Eid al-Fitr and *hajatan*.

Frugal attitude is also seen in informants who do not sell all the crops from their land after harvesting. The harvest obtained is used for daily consumption because they think that if consuming land products can certainly reduce the expenditure to buy rice. Farmers' crops are not all sold, but some are stored for food supplies because according to farmers' calculations by consuming the results from their agricultural land, it can save money to buy rice, and buy other necessities of life.

A thrifty attitude is also seen from the way of fulfilling the needs of clothing. Farming families usually buy clothes that are cheap and buy clothes at certain times only. Buying new clothes at certain times is usually done at the time of approaching Eid al-Fitr, where the new clothes will be worn during Eid and also when the husband benefits from his job as a fisherman. When the husband benefits from a job as a fisherman, then some of the profits are used to buy clothes, both clothes for children, clothes for husbands, and clothes for wives. In the Wakatobi area, there are many places to sell used clothes that are relatively cheap when compared to buying new clothes in clothing stores. This cheap used clothing in the local community is called "RB" or "*rombengan*".

In the field of health, farmers also have a strategy to meet health needs to keep all family members healthy. When sick, members of the farmer's family choose to go to the herbalist massage and/or buy medicine to the nearest stalls in the village. This strategy is quite effective in maintaining and maintaining the health of the farmer's family. Villagers if the district of disease prefers to go to the village shaman rather than go to the doctor. The cost of medicine to the doctor was expensive; at that time the villagers went to see a doctor. Most of all, if the farmers are sick, they do not go directly to the Community Health Center or to the doctor. Farmers prefer to seek treatment at a village shaman rather than a doctor, because the cost of treatment is much cheaper. The cost of one

treatment in the village shaman ranges from 10,000 to 20.000 rupiah, sometimes farmers do not pay if they do not have money.

Based on this fact, it can be said that when farmers suffer from a disease or get sick, to treat farmers do not go directly to the Community Health Center or hospitals, but they prefer to go to the masseur because the cost is cheaper. So farmers if suffering from a disease, to treat the disease they prefer to go to the village shaman, massaged, buy medicine in the stalls, and use the village medicine usually immediately cured. But if the disease has not healed, then the patient is taken to the Community Health Center or Hospital. In other words, if there are families of farmers sick, then Community Health Center or hospitals are the last resort because of the cost of expensive medicine. Therefore, the family of a sick farmer prefers to seek treatment to a kampong shaman whose cost is much cheaper when compared to going to the doctor.

The actions taken by these farmers are an effort to survive in the midst of the difficulties of life by saving food rations, clothing, and finding new rational and realistic ways to be able to connect life. According to Snel and Staring in Official (2005) that survival strategies can be interpreted as individual efforts to survive difficult conditions or dangers. The individual will strive to survive through the chosen action and perform it mindfully. That is, that the individual who wants to survive of course he will make an effort with calculations and a mature mind. By making rational choices intended so that they can survive and stay alive in the midst of the trials and struggles of life that are getting harder.

2. Alternative Subsistence Strategy

The second premise of Scott's theory is to use subsistence alternatives. This explains that farmers use subsistence alternatives as their mechanism to survive. In this paper, the farming community seeks to implement the mechanisms described by Scott in the use of subsistence alternatives, namely self-help that includes activities such as selling small, working as a handyman, becoming freelancers, or finding other side jobs that they can run. This strategy can involve all the resources in the household, especially the wife as an additional breadwinner for the husband.

In addition to livelihoods as farmers, the side work that can be done by farmers to meet the needs of their daily lives is to work as a fisherman. This work spends one night at sea and in the morning fishermen come home with catches that will be weighed the rest sold to the community. The income earned from this sea result depends on how much catch is obtained. Another side job done by the farming community is to pack ice cubes into fish boxes, usually, this work is done by the farmer's wife whose income depends on how many boxes are filled. In addition, the side work done is to dig wells that take a long time and sell charcoal.

If calculated, the income of informants is relatively low and not worth the cost of daily living needs are very high so that a strategy is needed to meet the needs of the family in order to continue their lives. To survive and move on, informants working as farmers implement alternative subsistence strategies to increase family income by doing side work. To be able to meet the needs of the family, informants do side jobs, among others, to become fishermen. The job is to find fish by fishing and archery at low tide. Fishing is done at night at 19.00 to 22.00 Wita. The proceeds from this fishing activity are partly consumed alone and some are sold.

Fishermen are one of the side jobs pursued by the farming community in Makoro Village and the informants here do not work as trawler fishermen who look for fish at night and return in the morning but become fishermen who look for fish by way of fishing done at night. As for the daytime in addition to being filled with gardening activities, it is also used for archery fish that is done at low tide. The result of the side job is to become a fisherman, namely going fishing at night, and archery fish during the day, the catch of fish obtained is partly consumed alone and some are sold to increase the family income. The strategy of doing this side work is considered quite successful in ensuring the survival of the family.

In addition to side work as a fisherman, the informant also works as a well digger, this work is done if anyone asks to be excavated well. When the informant accepts this job then the one who takes care of the land is his wife because the informant's wife also works as a farmer. The income received from the work of digging wells is uncertain in price depending on how many meters are excavated due

to one meter of Rp. 200.000, and this work is completed in a long time.

Another side job is to help people pack ice cubes into fish boxes sent to Bau-Bau. This work is done if there is no activity in the land that is in the dry season. In the dry season, informants work as ice cube packers. Doing side work as packing ice cubes filled in fish boxes is usually done at the turn of the season, namely the dry season. Because in this season farmers have harvested suitable crops that can be harvested within a matter of months and to wait for cassava to be harvested within a year then farmers make use of the season for other jobs. The income earned from packing ice cubes in this box depends on how many boxes of fish are delivered. Informants do this job not every day unless the ring trawler fisherman gets a lot of fish.

In addition to the above job the informant also works as a charcoal maker. This work is carried out at the time the informant looks after his plants. The informant burned charcoal in another land that still belongs to him and there is a lot of wood. After the charcoal is made already finished then sold to blacksmiths at the price of 4 cans Rp 56.000. The side work of burning charcoal is done while guarding the garden and after the charcoal is made already finished it is sold to blacksmiths.

In addition to the above job the informant also works as a firewood seller to be able to increase the family income. Selling wood one cart Rp100.000, and for good wood costs more than a hundred thousand rupiahs one cart. This job I do if anyone orders to be taken wood. From the results of interviews with informants, farmers also do side work to meet their daily needs by doing the work of selling wood at a predetermined price if anyone needs firewood.

Another side job the informant does is to pick up sand and rocks. This work is done if there is a local community that needs sand and stone then this informant is willing to take stones and sand for a certain wage.

The next side job done to supplement the family's income is to make a machete handle and a knife handle. If there are people who order directly created and at the same time attached to the machete. The better the carving of the machete handle, the more expensive it is also the price.

Based on the description that has been stated, it can be explained that side work has a huge effect

on the survival of farming families. In meeting the needs of the family, the husband's daily work is assisted by his wife and children. Some of their wives and children also work to help their husbands in fulfilling their family's economy. This alternative recruitment is done because their main job is not enough to meet the needs of their family life so additional income is needed to help their lives and families. By finding alternative sources of work can have a huge influence in providing family income, although perhaps the income earned is not so great but significant enough in helping to meet the needs of the family and ensuring the sustainability of family life

3. Relationship Building Strategy

In the last premise of James Scott's survival mechanism theory is to ask for help from relationships or social networks. This explains that the last effort made by the farming community to meet the needs of his life is by asking for help from relationships such as relatives, friends, and can take advantage of relationships with superiors or in his language Scott is referred to as a "patron".

In relation to the previous premise, in this case, the poor who work and have a close relationship with relatives, friends, or patrons then they will ask for help from the relationship when the income is not enough to meet the needs of his life. This method is done by some informants when they have difficulty living and need money suddenly, then one way is to borrow money to relatives or borrow to neighbors and if they already have money then the loan money will be returned immediately. The strategy of building relationships by borrowing money to relatives and neighbors when in need of money suddenly, and the borrowed money will be replaced immediately if the farmer already has money. This relationship-building strategy is very important to help farmers especially when they have difficulty living or suffering from diseases, and various other life difficulties.

CONCLUSION

Based on the findings of the study that the farming community in Makoro Village Binongko Subdistrict has a strategy to be able to adapt to the rocky natural environment. They implement adaptation strategies to be able to live their lives and meet their needs.

There are several strategies that can be done by farmers in getting around the rocky natural environment conditions, namely: First is the strategy of belting tighter or arguably the strategy of limiting yourself. In this case, farmers carry out a strategy with a simple life in order to ensure the daily needs of eating and drinking families three times. The strategy of belt binding is tighter or it can be said that the strategy of limiting the self-limiting conducted by the farming community in Makoro Village Binongko Subdistrict is to reduce the expenditure of clothing, food, and so on. A frugal lifestyle is done by farmers so that the income they receive can meet the basic needs of their families. Small farmers usually apply frugal living by being careful in spending their money.

The second is an alternative strategy of subsistence, which is related to an alternative strategy in which farmers and farming families do part-time business or side work, among others, by becoming fishermen, digging wells, helping people pack ice cubes for fish coolers sent to the Bau-Bau City area, burning charcoal after it is sold to blacksmiths, selling wood, taking stones and sand, making machetes and knives for sale, and others.

The third is the strategy of building relationships, where farmers build many networks with institutions outside the family environment. If they are in trouble then this network can be used to overcome various problems such as building relationships with relatives, village friends, or influential people in the village, the strategy of building relationships conducted by farmers in Makoro Village is to borrow money to neighbors and next of kin, borrow money with children and siblings.

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