

ISSUES IN FOOD SECURITY: CASE STUDY OF A VILLAGE IN SARAWAK, MALAYSIA

¹Parveen Kaur, ²Jayamuniswari A/P Mokana Sundaram, ³Namira Alia Binti Nazru, ⁴Siti Nuraina Binti Azmi, ⁵Shahidatul Aini Izzati Binti Palera, ⁶Siti Nurhafifa Binti Mohd Hashim

^{1,2,3,4,5,6}Department of Anthropology and Sociology, Faculty of Social Sciences and Humanities, University Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia, Email: sspkaur@unimas.my

ABSTRACT: Food is essential to human well-being and development. Increase food production remains a key strategy for alleviating global food insecurity. But even though global food production has remained above demand in the last half-century, today around one billion people do not have enough to eat, and another billion lack adequate nutrition. Research has shown that villagers from Kampung Muk Ayun do not understand or in other words have failed to see that they are facing issues derived out of food security which are food consumption pattern, diet that are both imbalanced and unhealthy. This study aims to evaluate the understanding of needs in accessing food security among Kampung Muk Ayun villagers. Based on review of literature on food security, the researcher constructs semi-structured questions used in interviews in order to further address the issues in the study. Analysis of the responses shows that the villagers are indeed facing food insecurity problem that even they themselves are not aware of. It is recommended, on this basis, villagers should build awareness and that responsible agencies should also work together to improve the quality of life. Further research is needed to identify more factors that could lead the people from rural area facing food security issues.

Keywords: Food Security, Food Consumption, Nutrition, Unhealthy Diet.

INTRODUCTION

Food security, as described by the World Food Summit (WFS) and the Food and Agriculture Organization, exists when all people have physical and economic access to adequate, healthy, and nutritious food that meets their dietary and nutritional needs for an active life at all times [1]. Contrary to this is food insecurity, a condition that occurs when individuals, families, households, and nations experience the inability and failure to have a food supply that is constant and fixed.

The rising number of the issue concerning food insecurity has been worrisome and this matter has often occurred in the rural areas [2]. The number of the cases for food insecurity has been increasing since the past two decades from an average of 15 cases per year in the 80's to more than 30 cases per year from 2000 onwards [3]. Food insecurity may be long term or temporary. It may be influenced by several factors and the factors are one that emerge out of the surrounding.

This study discusses the issue of food insecurity as a global societal dilemma that is prevalent across societies. It covers a small Bidayuh community within a village located in one of Sarawak's rural areas. The research explored food consumption patterns among the villagers to identify whether food insecurity issues exist among them. There is hope that the findings will provide important information that gives an insight as well as to create awareness among the public over the matter.

Objectives of the Study

The objectives of the study are:

- To analyse the indicators of food security.
- To apply the correct classification for Kampung Muk Ayun villagers regarding food security issues faced.
- To analyse the differences of food consumption between Kampung Muk Ayun villagers with former villagers that have shifted to a new settlement.
- To understand the cultural aspect through food consumption and means to acquire food among villagers.
- To evaluate misconceptions among Kampung Muk Ayun villagers on having a balanced and healthy diet.

LITERATURE REVIEW

Food security is as a multidimensional concept, household food insecurity has also a social aspect, which includes food availability, affordability and the culturally accepted means of acquiring food for the household [4;5].

Researchers [6] through 'Background Paper on Food Security and Nutrition' elaborated on the four indicators of food security; availability, accessibility, utilization and stability. Availability focuses on the supply and refers to the extent to which sources of nutrition are physically available through local food production and trade. Accessibility indicates the ability of the household to obtain food that are available. Utilization means the processing and preparation of food whilst stability is the temporal division of food security and includes the livelihood of stock and the ability to secure resources by the families. The state of being food secured depends on these four indicators and if one of these is unavailable, then it will be considered as food insecure.

In the research on household food security in the United States by researchers [7], for the United States Department of Agriculture (USDA), low food security is explained as to be used if a family meets the criteria when they are experiencing food insecurity however without the experience of being in hunger. Very low food security is used to label a family experiencing the case of food insecurity while being in hunger.

According to researchers [8], food security relates directly to nutrition and health and is also thought of as being related to availability and access of food stuff. Researcher [9] also discussed the importance of food safety for the general health of humans and the need to improve food security through aspects such as preparations. Food security is related to the balanced nature of its protein, fat, carbohydrate and micronutrient make-up.

Researchers [10] shared that the cultural perceptions of food sufficiency may differ between urban and rural households. A meal consisting of rice with eggs or anchovies may be enough to the rural households but not for the urban households, as these food items (eggs and anchovies) may be

considered as side dishes only. Thus, given the same amount and type of food, it is more likely for the urban low-income households to report food insecurity compared to the rural low-income. Although when substituted the term 'balanced meal' in the Radimer/Cornell instrument with 'a meal with rice, meat or fish and vegetables', the latter term may be subjected to diverse interpretations by the rural and urban households due to different cultural and social environments. Researchers [11] found that the percentage of households facing food insecurity is the highest in the rural areas. The first common factor to this is the low source of income which makes it hard for them to accommodate their daily life expenses for food. Other than the economic situation, Researchers [11] also discovered that most of the rural areas have lesser number of local stores. The lack of infrastructure amenities could also lead to food insecurity. Rural areas are lacking in commodity chain characteristic of cities which means, public transportation is not available for getting people to grocers.

METHODOLOGY

Study Area

The study was conducted at Kampung Muk Ayun and Bengoh Resettlement Scheme in Sarawak, Malaysia. The selection of the place was made to enable researchers to do a comparison on the eating pattern of the villagers at Kampung Muk Ayun and the former residents of the village who moved to the resettlement.

Kampung Muk Ayun

Kampung Muk Ayun located in a forestry area near Bengoh Dam, Kota Padawan. There are 26 Bidayuh families who live there which consist of 146 villagers. Researchers were told that these people are practicing subsistence economy which means that they breed animals such as chickens, duck and they also grow their own vegetables. Their source of water came from the hill nearby and these people only use generator as a source of electricity which is used only at nights. There are only two ways of going to the place which are using boat or using 4x4 cars that pass through the jungle as there are no tar roads available to the village.

- **Bengoh Resettlement Scheme**

Bengoh resettlement scheme was built by the Sarawak Government to help the villagers that are located near the Bengoh Dam (including Kampung Muk Ayun) to start a new life. The place provided a very comfortable housing area complete with houses with 3 bedrooms and 2 bathrooms and other basic amenities such as electricity, line coverage and water source were also provided. Researchers were told that they started to move into the place since September 2013 and in 2020, the total families that came from Kampung Muk Ayun are 21 families.

Methods of collecting data

- **Interview**

After choosing which study area that was suitable for this research, researchers then finally went to the village to do a pre-fieldwork visit to gain more understanding of the situation in the village. During the visit, researchers were lucky enough to meet a few villagers of Kampung Muk Ayun that were very friendly and able to answer every question that were asked. This research uses qualitative method to help our analysis and findings.

Researchers also used the open-ended question technique to ensure nothing was overlooked during the session. Researchers also had conducted an online interview with the people who live at the resettlement. Similar questions were asked to find any similarities or differences that will be compared in the analysis.

Observation

Researchers also did an observation of the place to observe their routine, housing area, their culture and so on. An observation is a part of qualitative method and it helps to give a bigger picture of the place as we are experiencing it using our eyes. From the observation, researchers found that their houses were very near to each other's and it was built using bamboo and woods that were solid enough to accommodate their families. Kids were everywhere playing hide-and-seek game and they seemed very contented with their lives.

Methods in analysis

There were few steps of doing the analysis after getting the information from the informant. The first step was, to get familiar with the data. During this phase, researchers replayed every recorded interview video and read all over again the notes that was jotted down during the interview. Every thoughts and opinions as well as ideas that came along from answers received were also considered. Researchers also transfer the interview answers into a textual form like a transcript to ease the process. Next, researchers also did revisit every research objective. This is important to ensure whether the data that was collected fit with the study and objectives. Researchers also had used the coding and indexing method to identify the broad ideas, concepts (the positive and negative responses to a question) as well as the behaviors and beliefs of the villagers. This is the phase where researchers will look upon the pattern and determine similarities or differences in responses given in order to classify what is common to find relativeness and its connection to the research topic.

For the last step, researchers had used narrative analysis to transform every raw data as the research findings. Narrative analysis is a tool used to analyse stories or experiences the informants shared as their answer to the question asked during the interview. According to Kim, the usage of narrative analysis is intentionally to help reader to understand why and how things happened in the way it naturally occurs thus, it will portray the situation and gives an in-depth understanding towards the issue.

DISCUSSION ON FINDINGS

The study produced an outcome of findings that encompasses demography of the respondents, an account of Kampung Muk Ayun villagers, an account of villagers who have shifted out to Bengoh Resettlement Scheme and a comparison of food consumption between Kampung Muk Ayun villagers with those who have shifted out to Bengoh Resettlement Scheme.

Demography of Respondents

This study included a demography section encompassing age, gender, ethnicity, marital status, number of family members, employment status, and monthly income. The study had 11 respondents in total where 6 of them were male respondents while the remaining 5 were females. The respondents were divided according to age groups such as adults, young adults,

adolescents, and child. There were 4 adults, 1 young adult, 5 adolescents and 1 child. All the respondents were of the Bidayuh ethnicity. The marital status of the respondents revealed most of them; 7 of them being single while the remaining 4 being married. All our respondents belonged to the Bidayuh ethnicity.

Two different households have been categorized as Household 1 and Household 2. Household 1 had 5 members in the family and Household 2 had 6 members in the family. The employment status of the respondents revealed 6 of them being students, 2 self-employed workers, and 2 homemakers. 1 respondent is unemployed at the time the study was conducted. The information on monthly income were taken based on per household. Household 1 earned an income of RM 350.00 whilst Household 2 earned an income of RM 45.00 on the monthly basis.

An account of Kampung Muk Ayun Villagers

All the information gained had revealed that the villagers are indeed facing the issue on food insecurity but however are unaware of it. This unawareness was believed could be due to the lack of knowledge on the matter as well as the state of being unaware of the existence of food insecurity as a global social issue. The four indicators on food security were missing among the families and households.

Low wage that categorized the households in the village as B40 families and the lack of infrastructure development as well as the basic amenities are the vital factors for the occurrence of food insecurity among the villagers. Families in Kampung Muk Ayun fall under the B40 category for earning a very low wage as their monthly income. Income that is constrained or limited, had forced households to make difficult decisions that had resulted in a less-than-adequate supply of food.

This is because highly priced food becomes a burden for families to buy food from both the local store and the local market. Hence, insufficient income prevents families from buying food and disrupts access to have enough food for the daily consumption, for within the wage obtained other essential needs for the family must also been met. The families do not have enough resources, the money that gives the accessibility for an assurance to obtain food in enough quantity and of good quality.

Besides, low wage also means that the families do not have the stability to secure themselves a constant supply of food. The villagers indeed eat 3 meals a day which are breakfast, lunch and dinner. However, what is important here is that what the villagers consume on the daily basis. The example of food that the villagers consume were 'Milo' or coffee as their morning drink (breakfast), rice and vegetables for lunch, plain tea for teatime and the same food eaten for lunch will be eaten for dinner later that day.

The villagers consume vegetables the most and consume fish and chicken very seldom as their meat intake which is only once or twice a month. This information had given the idea that the families from the village can be categorized as in low food security where the family meets the criteria, however without the experience of being in hunger.

The type of food that the villagers eat on repetition is also due to the lack of infrastructure and basic amenities. Kampung Muk Ayun is a village in the rural area that has no roadways,

electricity and water supply. The villagers do not have the accessibility to buy food from the local store and the local market due to not having proper roadways.

Having no electricity means that the households in the village do not have the privilege of owning a refrigerator that aids in food storage. The villagers are unable to store raw food such as meat and seafood for consumption. This results in major problem in storage of food without a refrigerator.

To overcome this problem and to indeed have some food for consumption, villagers use the fermentation process to preserve certain types of food instead. The two types of food that are produced are *tempoyak* and *pekasam*. However, the ageing of the stock further lessens the freshness and the quality of the food while the processing of food affects its physical and chemical properties. Thus, accessed food are not properly utilized due to the loss of volume, quality and nutritional values from improper storage, processing and cooking practices.

Most of the households plant their own vegetables such as tapioca, cucumber, spinach, and water spinach to avoid expenditure on food. Fruits such as banana, 'rambutan' and 'durian' are also planted by the villagers, however, are being sold to earn income. Furthermore, the villagers also plant their own paddy to have a supply of rice to avoid spending money on it. The planting of paddy that supplies rice does not mean that the villagers have food supply secured because the growth of the paddy is also highly dependent on the surrounding environmental factors such as weather condition and the fertility of the soil.

Despite eating, the continuous intake on only certain type of food is also worrying for the villagers. Sub-nutrition when linked together with inadequate food intake allows the measurement of food insecurity. We also found out from the responses shared that the villagers are not aware of the daily calorie intake for a grown-up man, woman, male teenagers, female teenagers and kids.

An account of villagers who have shifted to Bengoh Resettlement Scheme

From the data gathered, we found that the family still practices planting the vegetables such as water spinach and tapioca, fruits such as mangoes, banana, pineapple and coconut and no longer plants paddy for rice. The family do rear chickens, however, just as their pet. We found that with the amenities provided at the resettlement, families have better access to food supply. However, what remains the same is the income generated by the family where it is still of the same amount for some due to the same type of work done.

Comparison of food consumption between Kampung Muk Ayun villagers with those who have shifted

From our findings through the interviews, we found that the villagers who have shifted to Bengoh Resettlement Scheme still practice the similar food consumption pattern as they did back at Kampung Muk Ayun however, with a few new additions into their daily diet such as frequent intake of chicken meat. This we believe probably had to do with the availability of infrastructure where the households have easier access to grocery shops and market. The continuous consumption of similar food as they are used to while being back in Kampung Muk Ayun and the plantation of vegetables

suggests the unbreakable cultural practices strongly rooted in the hearts of the villagers.

CONCLUSION AND RECOMMENDATION

In conclusion, low wages that can also be associated with poverty, the lack of infrastructure and the lack of basic amenities are identified as factors that contribute to food insecurity. These factors when coined with the situation where households or families still eat a little something at the end of the day brings about the condition of being low food security.

Another aspect to investigate food consumption pattern as a part of food insecurity are the cultural values. There are group of people who choose to practice culture inherited from their ancestors without the urge or feeling the necessity of making changes to it. In this study, it is practicing the culture of consuming food. For the group of people that has been studied, if their ancestors survived different stages of life by eating the same type of food repeatedly, they too can survive life. It is in our opinion that, it is always hard to pull away a person who are strongly rooted in his or her cultural values and such case is no exception in the eating behavior practiced by people at Kampung Muk Ayun.

Our recommendation to help curb the food insecurity issue faced by families in Kampung Muk Ayun is that the government or NGO provide the villagers with counselling programmed that also serve the function of educating them on the severity of the situation that they are facing. It is unfortunate that the villagers do not know what they are facing. It is hoped that with the information and knowledge provided, the villagers will be more concerned in taking care of their eating behavior. Furthermore, as a group we are also hoping that the Sarawak government will take the vital steps to identify B40 families that are scattered across the different regions and provide such families with continuous aid to help them to step out from the food insecurity problem. Financial aids as well as the supplying of basic food can be provided. We fear that if this situation is left unattended, there will be no doubt in having malnourished society across the state in the near future.

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