



## Coping mechanism in overcoming food (in) security among the community at the Malaysia-Thailand border: A human security perspective

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### Abstract

Food security is one of the components that form the basic needs of a nation, households, and individuals. Any disruption at the dimensions of availability, accessibility, utilization and stability of food security will threaten the security and wellbeing of citizens. Although food availability at the national level is guaranteed through local production and imports, the accessibility and utilization dimensions are not yet fulfilled as certain groups are still unable to access and utilize adequate food. Therefore, this research aims to examine the coping mechanisms adopted by Malaysian households among communities in the Malaysia-Thailand border area by using the human security approach. The study is conducted using a qualitative research method to collect and analyze both primary and secondary data. Primary data were obtained through official documents and an in-depth interview with key informants among Malaysian households of the communities near Malaysia-Thailand border, local leaders and academicians. Meanwhile, published materials and online documents such as books, journal articles and reports served as a secondary source of data. The findings indicate that the households adopted several coping mechanisms, as well as utilizing external assistance programs to reduce the impact of food insecurity. Coping mechanisms, which made a difference in reducing vulnerability to food insecurity, varied among households depending on resources available. However, these mechanisms should be further scrutinized by relevant agencies to understand long-term impact on the affected households. Realizing this fact, the government should consider adopting the human security concept, which emphasizes community empowerment as a framework in policymaking, with the aims to eradicate food insecurity among vulnerable households and to ensure the well-being of every Malaysian.

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### Introduction

Food security was defined by World Food Summit in 1996 as a condition “when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life” (Food and Agriculture Organizations [FAO], 1996). Food security as one of the seven core elements of security outlined by the United Nations Development Program [UNDP] in its 1994 Human Development Report is crucial in ensuring the security of a state from both macro (national) and micro (human) levels of analysis.

The existing solutions to food security issues in Malaysia have been unsatisfactory. Primarily it is due to the understanding that a state is food secure if the food supply and production are uninterrupted. However, this notion has been unable to address the access of food among households and individuals holistically. Some communities are more marginalized than others and are exposed to food insecurity. From the literature review, it is found that the issue of food security was studied in rural areas in Malaysia (Zalilah & Khor, 2008), the east coast (Alam, Siwar, Wahid, & Abdul Talib, 2016), as well as the case study of Orang Asli in Perak (Hasni, Abdul Halim, Omar, & Ghazali, 2017). Although food security research is not new in Malaysia, there is a lack of data in terms of a wide scale study on food security, as well as local community living at the border area.

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The Malaysia-Thai border passes through Perlis, Kedah and Kelantan. Several main border crossings such as Padang Besar and Bukit Kayu Hitam are in this area. The location of both towns is strategic for economic activities. Drawing parallels from Rantau Panjang and Sungai Kolok, the spill-over effect of economic activities are found to be a potential precursor for a future economic zone (Anuar & Harun, 2018). This area was chosen as research focus mainly due to the lack of existing research as well as its heterogeneous composition of population, which replicates the national context.

The use of the human security concept represents a shift of perspective in looking at challenges of food insecurity. The existing food policies in Malaysia are evidence that food security has been addressed as a security threat. Yet, the sweeping approach by the government in using self-sufficiency limit (SSL) as an indicator of food security may have overlooked a more important facet of the nation and individuals. Hence, the human security perspective will provide an individualized account of the public on the phenomena of food security. To further examine the phenomena, this study focuses on the coping mechanisms practised by households and individuals at the Malaysia-Thai border during periods of food insecurity. This study argues that coping mechanism may serve as an essential role in ensuring human security during those periods.

## Literature Review

Food security on its own is a multi-disciplinary field that is influenced by many other factors, including climate change and environmental degradation. Globally, the measures in eradicating hunger and ensuring food security are still taking place. In the latest World Food Summit report, it is recorded that the number of undernourished people in the world has been on the rise since 2014 and it is estimated to reach 821 million by 2017 (FAO, 2018). Four dimensions are outlined in understanding the phenomena of food security which are availability, accessibility, utilization, and stability (Food and Agriculture Organizations of the United Nations [FAO], 1996).

Coping mechanisms are steps taken to reduce the impact of food insecurity during events such as famine, poverty, and drought (Gupta, Singh, Seth, Agarwal, & Mathur, 2015). Although quite similar, coping mechanism and adaptation mechanism bear different meaning in terms of application. 'Coping mechanism' refers to the measures taken to overcome a shortage of food supplies over a short-term. In contrast, the 'adaptation mechanism' refers to the process when individuals or households adapt themselves to reduced supply over an extended period and with no certainty of improving their condition (Davies, 1993). A coping mechanism is also a socio-economic measure taken by marginal groups to ensure their survival in challenging conditions (Snel & Staring, 2001). For this research, 'coping mechanism' is defined as steps taken by households and individuals during periods of food insecurity.

The coping mechanism allows researchers to monitor food security by understanding the changes that occur within the households during the period of scarcity. Corbett (1988) compiled these coping mechanisms in ascending levels of severity. The mechanism starts with food rationing, followed by continuous attempts to find additional income through labour activities and loans. If there is no improvement, the head of the household will sell productive assets such as equipment, livestock, household goods, and land followed by migration as the last option (Corbett, 1988). Hence, a coping mechanism also shows the level of stress faced by individuals or households in dealing with food insecurity (Gebrehiwot & van der Veen, 2014). In this case, an extreme coping mechanism is an indicator of harmful food security condition.

There are various types of coping mechanisms that are practical during periods of food insecurity. In terms of nutrition,

most households during these periods reduce their meal frequency or serving size (Maxwell, 1996). Financial resources or assets (such as livestock and crops) are crucial to assist a household to cope with food insecurity by diversifying income generation. Gender roles also play their part as the mother or a female member of a household is more likely to compensate their food intake so that the male members get enough food (Ashraf Ali & Vallianatos, 2017). Thus, the application of coping mechanism is unique and varied depending on the resources available in the household.

Human security is a concept which shifted the focus of security from viewing the state as the referent object to the humans or individuals who make up the core of the state. It was introduced by the middle power states – Canada, Norway, and Japan- as an alternative to the existing state-centric approach of security. Human security as an alternative is a 'people-centred' concept that emphasizes human development and human rights in state affairs and process, such as in its policymaking framework and development approach (Alkire, 2003). In line with this understanding, one must understand and acknowledge the multi-faceted nature of the relationship between food and human security (Liu, 2009). Hence, for this research, human security will be defined as a condition that exists when the vital core of human lives is protected, and when people have the freedom and capacity to live with dignity.

The United Nations has recognized seven elements of threat to be included in the human security framework which are; 1) economic security, 2) food security, 3) health security, 4) environmental security, 5) personal security, 6) community security, and 7) political security (Human Security Unit [HSU], 2016). Alternatively, scholars in International Relations sub-discipline have categorized these elements of a threat as non-traditional security issues. Besides, the *United Nations Educational, Scientific and Cultural Organization (UNESCO, 2008)* added an eighth element, which is cultural security. The Bangi Approach of Human Security (BAGHUS) categorized the security issues into two groups, namely, man-made problems and natural disaster. It introduced the ninth element, which is social security (Ramli, Othman, Idris, & Daud, 2012). In viewing the security threats, social constructivism perspective allows new or significant threats to be recognized and be acted on accordingly to achieve freedom from fear, freedom from wants, and freedom to live in dignity. Hence, the implementation of human security is understood to be localized and contextualized with local realities (Ramli et al., 2012; HSU, 2016). Due to this characteristic, the Asian way of embracing human security should not be viewed in the same way as the western counterparts (Mat, Othman, & Omar, 2018; Othman, Mat, & Haron, 2018).

## Methodology

### Data Collection

Data collection was conducted within a span of two months between July–August 2018 at Padang Besar and Bukit Kayu Hitam area. Primary data were obtained from in-depth interviews with research participants to gain detailed information on the issue of food insecurity. Purposive and snowball sampling was utilized to identify research participants among the community at the Malaysia-Thai border. Secondary data was obtained from resources such as books, journals, thesis, reports, newspapers and online searches to gain an understanding of the research topic. For the purpose of this research, two layers of triangulation were performed consisting of three different resources, i.e. semi-structured interviews, reports and books, as well as a stratified group of participants including the general public, school students, and community leader. An attempt was

made to reach the state Department of Social Welfare (Jabatan Kebajikan Masyarakat [JKM]) to verify our study, but our requests were denied.

### Data Analysis

All data collected from the interviews and literature reviews were organized systematically. The recordings were transcribed before being analyzed manually using content analysis by identifying the themes and codes before proceeding with the writing and reporting process. Research questions and objectives were used as a guide in analyzing the themes as the researcher attempted to interpret the meanings from the data.

### Research Participants

Of 16 participants, ten came from low-income households (B40), and the remaining were from middle-income households (M40). The income group of research participants was not classified before the interviews in order to access diverse perspectives on food insecurity. This is also in corroboration with previous studies, such as Khor (2008) which found that the increase of prices of a wide range of goods and services such as food items in recent years has affected not only the lifestyle but also the quality of life of many, especially households in the middle income and lower strata. The participants were stratified to involve various groups, including villagers, farmers, students, and community leader, and purposively chosen. Before the interviews, the participants were briefed about research objectives and expectation by the interviewer. The number of participants was not determined early on but was based upon the saturation point. In this study, the saturation point was obtained at the 16<sup>th</sup> participant, and the interview was stopped.

## Results and Discussion

This study derived several coping mechanisms practised by the community in the Malaysia-Thailand border area to maintain food availability and accessibility. Four broad themes emerged from the analysis and will be explained in the following order: 1) consumption-based strategies, 2) income-based strategies, 3) external intervention as a coping mechanism, and, 4) coping mechanism through optimal diversification of limited resources.

### Consumption-Based Strategies

Consumption-based strategy entails the initiative by households or individuals in adapting their eating pattern and dietary intakes according to their financial and economic circumstances. Participants from B40 households were likely to adopt a combination of coping mechanisms, and consumption-based strategies were the primary choice followed by income-based strategies. On the other hand, participants from M40 households emphasized income-based strategy as their primary coping mechanism. Socio-economic factors play an essential role in determining the range of coping mechanisms chosen in households (Mat & Ku Amir, 2019).

During the interviews, 12 out of 16 participants stated that they tailored their consumption based on household economic circumstances. The changes adopted by the household ranged from mild to extreme, starting with compensating their food choices, buying cheap food items, delaying meals, fasting, and skipping breakfast. This finding is consistent with research by Firdaus, Gunaratne, Rahmat, and Kamsi (2019), which found that upon disruptions in food access, the food insecure households altered their consumption accordingly.

This strategy can be regarded as an *ex-post* coping mechanism as it is applied 'after' food insecurity occurs. The findings manifested that B40 households have a higher tendency for *ex-post* coping mechanisms compared to M40 households. This idea suggests that the socio-economic condition of M40 households provided them with the flexibility to prevent food insecurity from occurring, hence the preventive strategies. The choice of coping mechanism can be explained by entitlement approach as compared to low-income households, middle and higher income household are entitled to choices which provided them flexibility in adapting to the crisis (Sen, 1981). In order to further elaborate the consumption-based strategies initiated by the participants, this section will be divided into sub-themes which are: 1) home cooking daily meals, 2) change in consumption patterns and 3) role of school hostels.

#### *Home cooking daily meals*

Seven out of 16 participants highlighted that most of the meals that they consumed were home-cooked. Home cooking improves the utilization of food as the households were able to access cheap food and fulfil their dietary requirements. This finding highlights the role of mother or maternal figure in ensuring food security of the household. Although unable to purchase high-quality food items, as they are more expensive, the mothers devise ways to ensure that the households obtain adequate food within their means (Mishra, 2007). However, not all mothers belonging to the households are capable of doing so as there are other limiting circumstances such as working commitment. However, their role is significant as a social role in the research context places the responsibility of food acquisition and preparation on the women (Norhasmah, Zalilah, Mohd Nasir, Kandiah, & Asnarulkhadi, 2010).

#### *Change in consumption patterns*

The participants also altered their daily food consumption in order to adapt to the household socio-economic condition. The changes included delaying meals, reducing food portion, spacing out mealtimes, skipping meals, and fasting. Besides, it also manifested that they adapted to minimal daily meals and occasional hunger. The severity of food insecurity in their households can be deduced through coping mechanism that they initiated, specifically, consumption-based strategies. The higher risk taken by households, such as by skipping meals and experiencing hunger, is a manifestation of the dire food insecurity (Gebrehiwot, & van der Veen, 2014). Although food insecurity in Malaysia is categorized as transitory and is rarely associated with famine and droughts, the long-term effects of these consumption-based strategies need to be further studied as they may cause malnutrition and diet-related diseases for the individuals.

#### *The role of school hostels in ensuring students' food security*

Two out of 16 participants expressed the role of school hostels in ensuring food security among the school students from B40 households by providing adequate meals six times a day and being monitored by the government. For students coming from a household with severe food insecurity, the food provided at the hostel allows them to cope by improving food accessibility. This finding is supported by Webb and Rogers (2003). They contend that school is an appropriate venue where intervention in addressing food insecurity among school students should be implemented. Among the approaches and strategies that can be undertaken are deworming, nutritious food intake, immunization, and hygiene education. Within the Malaysian context, the role of the school in ensuring food security of the students, as well as eradicating hunger, should be emphasized. By embracing the principles of human security, the responsible government agency can design

a comprehensive plan in eradicating food insecurity among students from B40 households. By incorporating the element of nutrition and health in the existing policies, food security condition of the affected students can be improved indirectly.

### Income-based Strategies

Income-based strategies are preventive measures taken to prevent food insecurity and are usually practised solely by M40 households or combined with consumption-based strategies by B40 households. The findings on this topic will be discussed in more depth through the following three sub-themes: 1) frugal spending, 2) income diversification, and, 3) strategic purchasing pattern.

#### Frugal spending

Frugal spending is employed when the households limit and minimize their purchase within their income through budgeting. Six out of 16 research participants expressed the frugal spending practised in their households to ensure that the income is rationed accordingly, starting from the most pressing needs such as electricity and water bills, food, and education costs. As one of the coping mechanisms, the households live within the bare minimum in order to survive. Notably, there is a local term '*perkin*' that is used to mean very frugal spending as the family prioritizes their needs from wants. It is common among B40 households to focus on staple food items and skip over expensive non-essential items. The frugal spending strategy was manifested by participants from both B40 and M40 households. As such, it can be deduced that households from both income groups are struggling to ensure household food security with the current living costs.

#### Income diversification

Generally, income diversification is employed by individuals who have supplementary sources of income through acquired skills and disposable assets without putting their primary income at stake. Four out of 16 participants mentioned alternative solutions that were explored to diversify their income and thus indirectly maintain household accessibility to food. Alternatives that are often employed are by pursuing activities that generate side income such as engagement in agriculture activities, carpentering or plumbing skills, or to increase the frequency or extend business hours or working hours on a daily basis. The additional skills provided the households with a safety net during periods where their primary income was interrupted. Hence, income diversification is an important option for vulnerable groups in building resilience against shocks or food insecurity and at the same time improving their livelihood (Wan, Li, Wang, Liu, & Chen, 2016). Furthermore, having assets in the form of land and agricultural crops softens the impact of an economic crisis.

#### Improve buying power by strategic purchasing pattern

Participants from B40 households are well aware of their weak buying power due to low-income generation and high living costs. However, it was not only the B40 households that felt the pinch of high living costs, as the participants from M40 households also gave the same feedback. Thus, the households have strategized several ways to ensure that they can access essential food items by devising strategic and disciplined buying patterns.

These findings showed that the affected households arranged their purchases in such a way that will increase their buying power. They may engage in activities such as buying in small amounts; buying when the household run out of food stock (once every week or once every few days); buying cheap food items; or buying only when they receive their wages. These strategies allow them to accomplish a higher buying

power, although not continuously for a month, but it gives them access to economically purchase food items.

However, it should be noted that there is also a negative coping mechanism such as borrowing money, which will create a ripple effect in the form of financial commitment for the households. Two of the participants mentioned about borrowing money from extended family and friends to cope with food insecurity. In this case, the well-being of the individuals and household is not secured in the long run as borrowing burdens the household with additional financial commitments (Ghimire, 2014). Webb and Rogers (2003) further elaborated that the households often compensated long-term investments for fulfilling short-term needs, such as putting food on the table. As such, their livelihood and well-being will be compromised in a vicious poverty cycle unless such problem is solved. This explains the relationship between low-income households and negative coping mechanism.

The participants also expressed that they intentionally buy cheaper food items in order to provide daily meals for households. Three participants stated that items such as eggs, vegetables, and a particular type of fish are their primary choice for cooking as these items are cheap. By opting for cheaper food items, the households extended their food stock and maximized the money spent. However, if households solely depend on the same food items and are unable to obtain the right micronutrients, it is a concern that they could face diet-related diseases.

### External Intervention as a Coping Mechanism

As 10 of the participants came from B40 households, they are eligible to receive governmental aid targeted at low-income households or B40. The remaining participants, however, were not eligible as they are from the middle-income households (M40). During the interviews, it was found that seven participants were recipients of aid. The mechanism and value of the assistance given to the students or households differ accordingly based on their financial situation. In order to further elaborate on a coping mechanism based on external interventions received by the participants, this section will be divided into two sub-themes which are: 1) cash-based aids, and 2) food-based aids.

#### Cash-based aid

There are several types of cash assistance available in Malaysia such as a one-off financial assistance for every eligible citizen, namely, the Bantuan Rakyat 1 Malaysia (BR1M), *zakah* (Islamic charity), and financial aid provided by the state agency such as JKM. It was found that the cash assistance acts as periphery support to the households due to the frequency of BR1M and *zakat*, which are not continuous. Only the JKM provided financial assistance is on a monthly basis.

During the interviews, one respondent expressed their dependency on external cash assistance in order to provide daily meals to the household. However, it is questionable whether the amount attained from the JKM is adequate for the household. Interestingly, a respondent who is a grocery store owner mentioned that there was no significant observable change of purchasing patterns during the period of BR1M distribution. A possible explanation for this observation, according to him, is that the affected households will use the money for more urgent matters such as car repairs or buying other necessities. Hence, the effectiveness of the interventions in ensuring food security is unclear.

#### Food-based aid

Several participants who were currently enrolled in school explained that the food-based assistance was provided to them by an institution or concerned individuals. During extra classes, several teachers also voluntarily aided the students by providing them with food. To ensure its effectiveness, the aid program

designed to assist students and low-income households must be comprehensive by considering their needs and possible problems that they are facing. Intervention must be evaluated regularly to validate its effectiveness in improving the food security of the targeted recipient (Webb & Rogers, 2003). Policies must be based on rigorous background study of the risks and resilience at household and community in order to form solutions.

Nonetheless, improvements can be made by focusing on societal empowerment instead of entirely depending on the government's intervention. Social networks can be a foundation of a positive coping mechanism in a population, to improve problems of child hunger, as suggested by Tam, Findlay, and Kohen (2014). Compared to their research focus among aboriginal and rural population in Canada, the social context is different in Malaysia (Tam et al., 2014). However, seeing the effectiveness of this coping mechanism, and utilizing it as an alternative to existing interventions is highly encouraged. It is almost similar to societal empowerment initiatives in line with the idea of food sovereignty. Over a longer-term, societal resilience to food insecurity will be strengthened and hence improve human security.

#### *The Coping Mechanism through Optimal Diversification of Limited Resources*

Households that own additional resources in the form of land and agricultural skills will be able to cultivate food for personal and household use. Four of the participants expressed the strategies used in their household to produce food items such as by rearing chickens, quails and fishing at nearby canals. Home gardening contributes to household food security by providing direct access to food that can be harvested, prepared and fed to family members daily. This finding corroborates the idea of Marsh (1998) on the role of gardening in providing a source of food for poor communities. In the Malaysian context, rural areas have leverage in comparison to urban areas as land is easily obtained in the former. In this coping mechanism, home gardening has a unique role in providing direct access to food through self-reliance rather than dependence on external support.

This finding is supported by Rezai, Shamsudin, and Mohamed (2016), who studied the contribution of urban gardening amongst population inflicted by urban poverty. According to the authors, urban gardening can improve food security since it provides enough quantities of food, appropriate nutrition, cost-effective food supplies and a reduction in food bills. Although this paper focuses on the practicality of urban gardening to solve food insecurity among the urban low-income groups, the assertion is still applicable in rural areas. In a

different setting, either rural or urban areas, gardening will allow the household to grow their food items, hence an improvement in food accessibility.

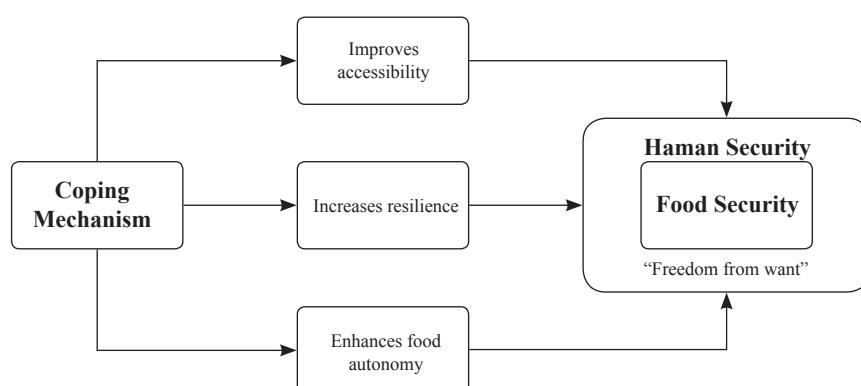
A coping mechanism that allows direct access to food such as gardening and fishing will provide the household with food availability and access hence improving their food security condition without posing long-term effects on the households. However, Bekele and Abdisa (2015) commented in their work that in order to reduce the vulnerability of households towards food insecurity, they should not solely depend on agriculture. Instead, upskilling works and training should be provided for the villagers to diversify their income. Hence, providing households with additional skills will allow them to increase production and build a safety net for long-term food security.

#### Conclusion

Although regarded as a 'soft threat', food security is still an instrumental issue within the context of the community at the Malaysia-Thai border. The failure in fulfilling the accessibility dimension of food security due to economic circumstances has caused the households and individuals to experience food insecurity. As a result, they are facing several effects that undermine their wellbeing.

This case study is a manifestation of the food insecurity issue among vulnerable groups (the low-income households), which still occurs, despite interventions designed by the government. Both B40 and M40 households feel the pinch of high living costs, but previously experienced harsher impact of food insecurity due to lack of social safety nets. Ideally, an external intervention will reduce the impact or improve food security within a household. However, findings from the study show that there are still groups that are affected by policy loopholes and are not receiving the protection they need.

The analysis of research findings has been modelled to show the role of coping mechanisms in ensuring food security and human security (Figure 1). Coping mechanisms employed by households allow them to improve accessibility, increase resilience towards food insecurity, and enhance food autonomy. This is a solution to food insecurity based on the bottom-up approach as more autonomy is given to the households to solve their problems. By identifying and analyzing the coping mechanisms adopted by the households, such as income diversification and home gardening, the policymakers will be able to design a policy that is practical in solving households food insecurity, as well as alleviating quality of life and well-being. For instance, an option that can be considered is promoting sustainable farming or permaculture within the households.



**Figure 1** The role of coping mechanism towards food security and human security

Source: Ku Amir (2018)

The range of coping mechanisms should be seen as a manifestation of the food insecurity condition within the household. In an extended period, the coping mechanisms may alter the livelihood of the households in negative ways, such as the act of borrowing money. These mechanisms may also cause inaccuracies among policymakers in gauging the level of food security among citizens as food availability does not necessarily guarantee food access.

The policies designed by the government should operationalize human security approach in solving food insecurity among low-income households. The aspects such as people-centric, comprehensive, context-specific, and prevention-oriented should be embraced in operationalizing human security within the existing policies. Food is an essential component of household, thus, it should be protected for the well-being of the people.

## Conflict of Interest

There is no conflict of interest.

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