THE EVALUATION OF FOOD SECURITY OF THE THREE SOUTHERN BORDER PROVINCES HOUSEHOLD IN THAILAND

[1]TEERASAK JINDABOT, [2]KANON TRICHAN

[1,2]Faculty of Management Sciences, Prince of Songkla University, Thailand
E-mail: [1]teerasak.j@psu.ac.th, [2]charlee.t@psu.ac.th

Abstract- This research aims to evaluate the food security in the three Southern Border provinces household using the four dimensions with 43 indicators of food security. The 450 of self-administered questionnaires were collected, analyzed, and prioritized by PNI. The result shows that, on average, food security of the three Southern Border provinces house hold is moderate. The urgent dimension, which is needed for increasing the food security, is food utility. As a result, the Royal Thai Government have to develop and provide water resources sufficiently.

I. INTRODUCTION

Food security has been introduced into the world, academic world specifically, since 1943 as an important component of living standard (S. Maxwell & Smith). In order to describe whether a country had access to enough food to meet diary energy requirement, food security has been applied (Pinstrup-Andersen, 2009). As its importance, how to evaluate the food security still be questioned with both academic and policy maker. Thus, the means of measurement of food security is highly demanded (D. Maxwell et al., 1999), in order to eradicate food insecurity and poverty correctly, especially in developing countries that have been strongly supported from various international organization and their own government (Babatunde, Omotesho, & Sholotan, 2007).

Thailand, one of the ASEAN nations, has faced to many internal and external problems that lead to insecurity, food insecurity for instance. The related causes of food insecurity in Thailand are identified as 1) declining of food resources, 2) water pollution, 3) land degradation, 4) land accessibility, and 5) the Free Trade Area agreement(Chan-On, 2014). The National Statistic Organization of Thailand reported that there is 12 percent of population who cannot meet minimum standard of living for three meals per day(National Statistic Organization, 2015). As a result, food security cannot be concluded.

Moreover, the three Southern Border provinces of Thailand have been terrorized by separatists more than a decade. The Royal Thai Government has dedicated budget to recover the situation and their citizen, however, all budget seem to be wasted. The local people have evacuated to safety area, such as Songkhla province, and Phatthalung province, while some have moved to other regions. As a result, the food security level in the area is going worst.

Thus, this research aims to evaluate the food security level in the three Southern Border provinces household, in order to declare the actual standard of living of the local population. The result will be put a huge concern to the Royal Thai Government to be aware of implementing policy carefully and sustainably.

II. REVIEWING THE LITERATURE

As stated previously that the question on how to evaluate the food security correctly is still vary to answer, it is because of complexity of the concept. The article written by S. Maxwell and Smith () shows that the food security concept has been discussed since 1970, however, they concerned on global food supplied more than demand. They also concluded that there is four dimensions of food security, which are 1) sufficiency, 2) access, 3) security, and 4) time.

Because of too many definitions of food security, this paper select only some interesting definitions. United Nations (1975) stated that food security is the availability of food supplies at all time to meet the need of food consumption expansion. In 1986, World Bank (1986) define food security is an access by all people at all time to enough food for an active, and healthy life. Finally,Pinstrup-Andersen (2009) cited the definition of food security which agreed at the World Food Conference in 1996 as the situation that all people, at all time, can access to enough quality food to meet their preference for healthy and active life. Recently, Babatunde et al. (2007, p. 52) concluded that

> *"achieving food security requires that the aggregate availability of physical supplies of food is sufficient, that households have access to those food supplies through their own production, through the markets, or through other sources, and that the utilization of those food supplies is appropriate to meet the specific dietary needs of individuals households or individuals in the households."*

Thus, this research defines food security as the situation that everyone can access sufficiently to quality food for standard living.

In order to measure the food security, Pinstrup-Andersen (2009) has grouped into three categories. Firstly, "household food security" is measuring the welfare in household level. Household has food

security if it can acquire the food to satisfy members. Secondly, "estimation of food security" is an estimation of total household incomes and food price. However, household behavior and the costs of other goods and services would distort the actual food security. Finally, "magnitude of food insecurity" is whether all members able to acquire the food they prefer, or one of them suffer from insufficiency.

There are many researcher who have done the research to find out the better food security measurement tool. For example, Parry, Rosenzweig, Iglesias, Fischer, and Livermore (1999) added the climate change into their food security indicator as its effect the crop yields. In the same time, D. Maxwell et al. (1999) suggested the alternative food security indicator which are much less time consuming and less expensive in term of data collection and analysis. Moreover, Babatunde et al. (2007) found that socio-economics characteristics determine the food security status of farming household, and suggested food security as a multi-dimensional construct.
However, because of cultural and other differences, this study employ food security indicators that have been developed by Thai academic. Sukabot (2014) presented food security in four dimensions with 43 indicators that cover all context in Thailand.

III. METHODOLOGY

This research is based on quantitative approach using self-administered questionnaire, which is developed under the four dimensions of food security indicators by Sukabot (2014), distributed to 450 households in the three Southern Border provinces of Thailand (Pattani, Yala, and Narathiwat). The questionnaire consists of two parts. The first part contains of personal information and socio-economics of household. The second part, the respondent was asked to rate the level of the present situation and their expectation on food security within the area.

All data was analyzed with statistical software. Frequency, percentage, mean, and standard deviation were used to describe the sample's characteristics, socio-economics, and level of present situation together with expectation toward food security. In order to prioritize the food security dimensions, the Priority Needs Index (PNI) was analyzed.

IV. RESULT

The result is presented in two part. First, the sample's characteristics and socio-economics are presented. Then, the level of present situation and expectation on food security, together with PNI are shown.

- **Sample's characteristics and socio-economics**

  The result shows that 87.77 percent of sample is male, age around 41-60 years old, 86.67 percent are Muslim, and married. Most of respondents have been living and working as agriculturalist in the area, more than half finished primary school or lower. In average, the respondents are 49.34 year-old, 5,513.56 THB a month, living in the area for 43.15 years, and have 7.75 members per family.

- **The level of food security**

  The result shows that the present situation of food security in the three Southern Border provinces household is moderate, while the respondent's expectation of food security is high. In detail, the first priority of needed food security is food utility, then, food accessibility, food sufficiency, and food stability respectively. Table 1 shows the result of statistical analysis.

CONCLUSION AND DISCUSSION

As the importance of measuring food security, there is a number of mean to evaluate the concept. However, this research is focused on the three Southern Border provinces household, so, we aims to evaluate the food security using indicators which are developed by Sukabot (2014).

We have found that most of respondents are Muslim and working as an agriculturalist. The result is consistent with theNational Statistic Organization (2015) that show the high proportion of Muslim citizen in the three Southern Border provinces. Some of them hold two nationality, Thai and Malaysian, where is Islam. Further, the main agricultural area is for perennial plant and rice farming (Wongsaichue, 2010).

On average, food security of the three Southern Border provinces household is moderate. Although, the Royal Thai Government have launched new policy together with budget, the disturbance still highly affect to the people life. Burke, Tweedie, and Poocharoen (2013) stated that the problems in the Southern part of Thailand are from ethnic nationalism which is a barrier to future transformation. Thus, if The Thai Government cannot enact changes in order to address these causes and encourage a negotiated peace process, people will be still in food insecurity situation.

Food utility is the first priority that people need to be supported from the Government to improve their food security. The food utility means that household can have the nutritious foods, for instance, clean water, and healthy foods to satisfy their physical need (Prachasanti, 2009). Because of the disturbance in the area, most of available food is the local food as national entrepreneur hesitate to invest in this area.

Table 1: The average score of expectation, and present situation of food security in the three Southern Border provinces.

Food security dimensions	Statistics				
	Expectation (I)	Present situation (D)	I-D	(I-D)/D	Priority
Food sufficiency	3.48	2.69	0.79	0.29	3
Food accessibility	3.99	3.08	0.91	0.30	2
Food utility	3.63	2.62	1.01	0.39	1
Food stability	4.11	3.31	0.80	0.24	4
Average	3.80	2.93			

RECOMMENDATION

1. In order to increase food security of the three Southern Border province household, The Royal Thai Government should focus on food utility by developing and providing water resources sufficiently.
2. For food accessibility, the government have to increase natural food resources in the community.
3. The government and relevant agencies should give priority to food production. Promoting and developing of food production in the area to be sufficient for consumption are needed.
4. Finally, the government and relevant agencies should support household and community to produce food and livestock for household consumption such as the household farm project.

ACKNOWLEDGEMENT

This work was supported by the Higher Education Research Promotion and National Research University Project of Thailand, Office of the Higher Education Commission.

REFERENCE

[1] Babatunde, R. O., Omotesho, O. A., & Sholotan, O. S. (2007). Socio-Economics Characteristics and Food Security Status of Farming Household in Kwara State, North-Central Nigeria. Pakistan Journal of Nutrition, 6(1), 49-58.
[2] Burke, A., Tweedie, P., & Poocharoen, O. (2013). The Contested Corners of Asia: Subnational Conflict and International Development Assistance: The Case of Southern Thailand. U.S.A.: The Asia Foundation.
[3] Chan-On, N. (2014). Food Security in Thailand.
[4] Maxwell, D., Ahiadeke, C., Levin, C., Armar-Klemesu, M., Zakariah, S., & Lamptey, G. M. (1999). Alternative Food-security Indicators: Revisiting the Frequency and Severity of Coping Strategies. Food Policy, 24, 411-429.
[5] Maxwell, S., & Smith, M. Household Food Security: A Conceptual Review.
[6] National Statistic Organization. (2015). Statistical Data. Retrieved 28 Jul, 2015 http://www.nso.go.th
[7] Parry, M., Rosenzweig, C., Iglesias, A., Fischer, G., & Livermore, M. (1999). Climate Change and World Food Security: A New Assessment. Global Environmental Change, 9, 51-67.
[8] Pinstrup-Andersen, P. (2009). Food Security: Definition and Measurement. Food Sec, 1, 5-7. doi: 10.1007/s12571-008-0002-y
[9] Prachasanti, S. (2009). The Development of Food Security Indicators. National Health Commission Office of Thailand.
[10] Sukabot, S. (2014). Research and Development of Model of Deserted for Sustainable Food Security in a Small Area under the Social and Lifestyle Songkhla Lake. Songkhla: Prince of Songkla University.
[11] United Nations. (1975). Report of the World Food Conference (5-16 November 1974 ed.). New York
[12] Wongsaichue, T. (2010). Land use in Thailand. Retrieved 30 July 2015, 2015, from http://pirun.ku.ac.th/~fedutnw/20101112.html
[13] World Bank. (1986). Poverty and Hunger: Issues and Options for Food security in Developing Country. Washington, DC.

★★★