

## THE ROLE OF ZAKAT FUND TOWARD SUSTAINABLE FOOD SECURITY IN MALAYSIA

Nur Marina Abdul Manap<sup>1\*</sup>

<sup>1</sup> \*Department of Economics and Agribusiness, School of Economics, Finance and Banking (SEFB), University Utara Malaysia (UUM).

\*Corresponding author (email: [nurmarina@uum.edu.my](mailto:nurmarina@uum.edu.my))

Diterima: 23 August 2019, Diproses: 6 September 2019, Diterbitkan: 18 September 2019

---

**Abstract:** Sustainable Development Goals (SDG) is the 2030 core agenda in sustainable development which was agreed by a world leader on 25 September 2015 at the United Nations (UN) Conference. There are 17 SDG indicators as it was presented in the 47th Session United Nations Statistical Commission (UNSC). These 17 SDG indicators are concerned to cover three dimensions of the universal need for development in economic growth, social inclusion, and environmental protection. Food security is the second SDG indicators where the theme is focusing on Zero Hunger, Achieve Food Security and Improved Nutrition and Promote Sustainable Agriculture. Food security has 4 important pillars known as availability, accessibility, utilization, and stability. In Availability pillar, there are three important variables known as Food Production, Food Import, and food aid. The objective of this paper is to analyze the impact of zakat fund to sustained food security in Malaysia. This paper will use panel data analysis with 14 states in Malaysia from 2011 until 2017. Finally, the purpose of this paper is to analyze the zakat fund indicator to sustaining food security in Malaysia.

**Keywords:** Sustainable, Food Security, Zakat fund

---

### INTRODUCTION

Sustainable Development Goals (SDG) is the 2030 core agenda in sustainable development which was agreed by the world leader on 25 September 2015 at the United Nations (UN) Conference. SDG is continuity development agenda after the Millennium Development Goals (MDG) which ends in 2015. MDG basically consists of 8 Goals and 21 Targets. While SDG was expanded further to 17 Goals and 169 Targets which continue the goals to achieve the 2030 agenda instability in three dimensions of sustainable development namely social, economy and environment.

There are 17 SDG indicators as it was presented in 47th Session United Nations Statistical Commission (UNSC) which is no poverty, zero hunger, good health and wellbeing, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry innovation and infrastructure, reduced inequality, sustainable cities and communities, responsible consumption and production,

climate action, life below water, life on land, peace justice and strong institution and last but not least is partnership for the goals. These 17 SDG indicators are concerned to cover three dimensions of the universal need for development in economic growth, social inclusion, and environmental protection.

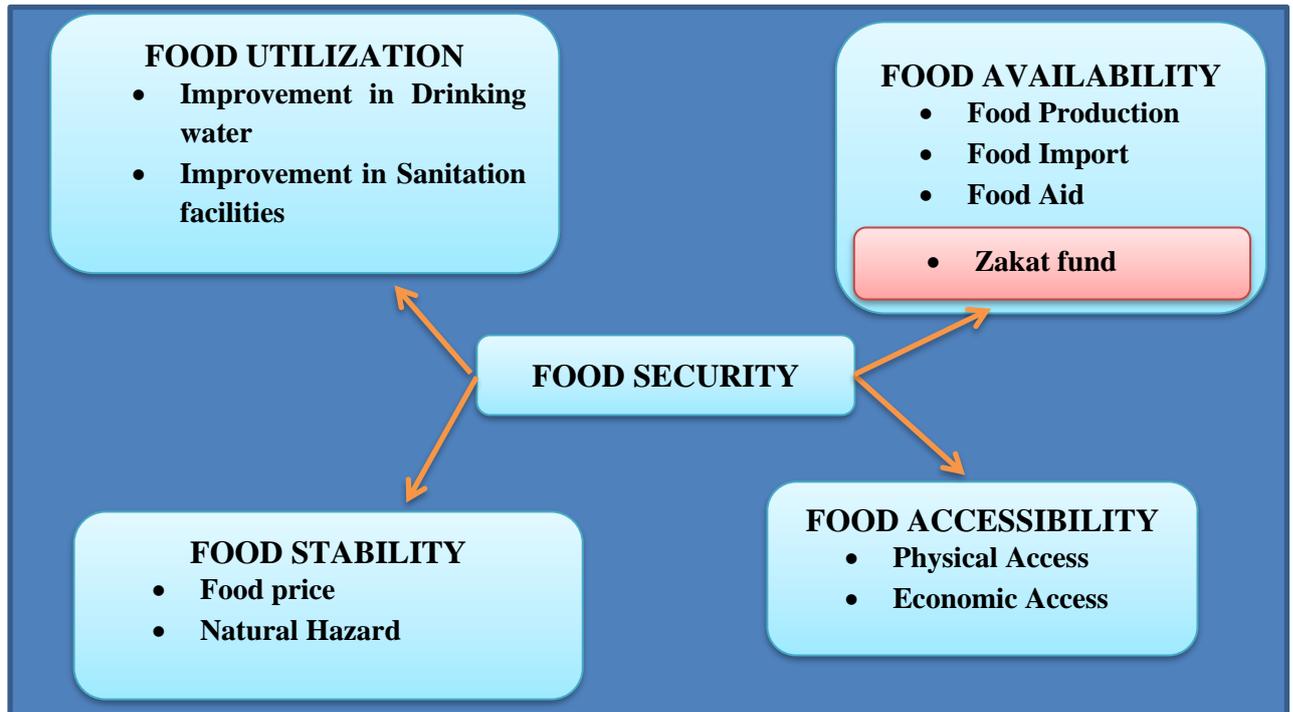
As Malaysia concerned about the global SDG issue, Malaysia involve and took part in the development of the SDG at the international began in late 2014; with the involvement of Economic Planning Unit (EPU) in the negotiation process between United Nations country members (Inter-Governmental Meetings) held from January until July 2015 to finalize the Post 2015 Development Agenda. In July 2015, the department of statistics in Malaysia was officially appointed as the focal point to coordinate the SDG data collection during Main Users Committee No.1/2015. The main role of the focal point is to coordinate the compilation of SDG indicators from various line ministries/agencies. In September 2015, the Department of Statistics, Malaysia was appointed as a member of the Highers Level Groups on Sustainable Development Goals (HLG-SDG) meeting representative of Malaysia and the Asia Pacific region. The HLG-SDG consists of 22 countries and was established to set the strategic direction in the development of SDG.

### **FOOD SECURITY AND ZAKAT FUND**

The second goal of SDG is to find a solution to ending hunger in all its forms before 2030 and to achieve food security. They create this SDG to ensure everyone has enough food to lead healthy food. By achieving this goal, they need better access to food and widest promotion of sustainable agriculture. It also will improve the productivity and income for the farmer by promoting equal access to land, technology, and market, sustainable food production system and so on. They also will increase investment through international cooperation and will automatically boost the productive capacity of agriculture and sustained food security.

Food security is a flexible concept that has evolved in the past 30 years to reflect changes in official policy thinking (Clay, 2002). Food security at the national level is the capability of ensuring a national food balance and ensuring sufficiency of the food supply and availability to fulfill the needs of national populations (Chen & Kates, 1994). At the household level, food security is linked to a household's entitlement in terms of food production resources, level of income, food expenditure, and food consumption (Chen & Kates, 1994). The degree of household food security depends on the minimal nutritional requirements of individuals, based on the period of analysis, and assumes that all households have the same entitlement to food and ignores non-economic vulnerabilities. The Food and Agriculture Organization (2008) has identified four main dimensions of food security: availability, accessibility, utilization, and stability. Beside of these 4 main pillars, Zakat fund also has a significant role in sustained food security in Malaysia by substitute the role of food aid with zakat fund. Zakat fund is done via zakat aid schemes which are known as Asnaf development, shelters, education, self-reliance and development of ummah. According to Zaenal, Astuti, & Sadariyah (2017), zakat fund plays important role in improving human welfare and reduce pverty problem. This statement is supported by Kinanti, Zaenal, & Kinanti (2018), where zakat is the instrument that contributes a huge per cent to reducing poverty level. These authors have shown that Zakat Community Development (ZCD) through

entrepreneur program can help the community to increase their income and improve their quality of life. Moreover, productivity in zakat collection and distribution is essential to improve quality of life and education for asnaf life (Sumatera et al., 2018). The objective of this paper is to analyze the impact of zakat fund to sustained food security in Malaysia. Figure 1 below illustrates the conceptual framework that shows the link between zakat fund and food security.



**Figure 1: Food Security Conceptual Framework**

## LITERATURE REVIEW

The United States Agency for International Development (USAID) has identified three important keys for improving food security at the national level, based on USAID policy determination (USAID, 1992). The three main indicators are availability, accessibility, and utilization. Food availability is one of three key indicators for improving food security at the national level and consists of food production, food imports, and food aid to fulfill the minimum requirements per capita.

Food security and human development have a strong relationship through food production (Conceicao et al. 2011). Food sufficiency can be achieved by increasing food production and relying on food imports. However, food aid also plays an important role in overcoming famine and hunger, especially in least-developing countries. Food aid can be classified into two categories. Firstly, food aid is important in short-term emergencies, such as earthquakes, hurricanes, drought, and war. Secondly, food aid is programmed to resolve the deficiencies of food for the medium term. The main source of food supply for India, Bangladesh, Ethiopia, and Zambia is obtained from domestic food production. The deficiency and fluctuation of domestic food production caused by poor weather will cause instability in

food availability. This situation will reflect a higher dependence on food imports and food aid.

Food aid plays an important role in emergency situations and also fulfills food shortages in long-term situations (del Ninno et al. 2007). Based on this study, India and Bangladesh were highly dependent on food aid from the mid-1950s until the late 1960s. However, in the mid-1960s, these countries' governments had changed their structure of economics and chose a food self-sufficiency policy to improve their agriculture sector and reduce dependence on food aid. India's Government has increased its public investment in irrigation, raised its research and development (R&D) in the agricultural sector, and subsidized its fertilizer and agriculture credit to fund green revolution technology. The government has played a role in maintaining the availability of food in India by restricting private-sector purchases, controlling all storage and grain movements, providing minimum support prices to producers, increasing agricultural technology, controlling all price policies to increase its domestic food production, and reducing food aid and food imports in the share of total food supply.

However, Ethiopia and Zambia are highly dependent on food aid, especially after natural disasters. Food aid has a negative impact on food production because it reduces market prices for producers, which decreases government incentives. There are three main factors that contribute to the efficiency of domestic food production in India and Bangladesh. First, these countries receive long-term investments in the agriculture sector and infrastructure. Secondly, food aid flow is smaller than total food consumption. When the proportion of food aid flow is larger than that of total food consumption, it causes adverse price effects on production incentives. Lastly, food aid inflows are distributed through a public distribution system, adequate public storage, and a good management system ensuring the timeous arrival of food aid. However, the situation is different in Ethiopia, as its domestic food production is lower than that of India and Bangladesh since Ethiopia lacks sufficient sponsors for investment in R&D and has inefficient irrigation systems. This country is highly dependent on food aid, especially during natural disasters such as floods and drought.

Usually, when food shortages occur, the least-developed countries depend on food aid instead of food imports to bridge the food gap between food supply and food consumption. Actually, food aid can have a positive impact, contributing to disincentive effects in agriculture production. Gelan (2007) asserts that food aid in Ethiopia can prevent food price increases, stimulate domestic food production, and improve aggregate household welfare. This paper differs from other food aid literature because it finds that poor rural households and urban wage earners enjoy greater benefits than entrepreneurs, who need a reduction in marginal welfare. Moreover, Egypt is one Middle Eastern country that has high food security with dependence on domestic food production; it is also the largest recipient of cereal food aid in the world (Thomson, 1983). Food aid plays an important role in increasing national food stocks directly and indirectly through financial support and technical assistance for national food strategies. Food aid is known for its long-term ability to improve efficiency and sufficiency of domestic food production.

Food aid not only has an impact on domestic food production but also influences international trade. Ballenger & Mabbs-Zeno (1992) show that food aid plays an important role in achieving food security. The weaker incentives for food aid supplies, higher world

commodity prices, and lower government stock levels make food-importing GATT members highly concerned about the multilateral agriculture policy reform. The main issues that arise from this study include a set of international policies that support food security, which has a strong link with GATT's main objective to reduce interference by national policies in the free flow of goods. The international policies include a commitment to maintaining global food stocks and food aid, increasing plans to bolster food stocks and food aid distribution and support programs, whose main purpose is to reduce the instability of food production and food supply. However, the GATT control policy depends on economic development sustainability, which involves food security mechanisms the GATT can support without encouraging new trade distortion.

Additionally, Zakat fund can be classified as one of aid that contributes a huge impact to sustained food security in Malaysia. Zakat fund is a very important aid indicator to sustained food security, especially in Malaysia. The scope of zakat fund is based on syara' where the distribution is for 8 important asnaf known as zakat known as Asnaf Faqr, Asnaf Miskin, Asnaf Amil, Asnaf Muallaf, Asnaf Riqab, Asnaf Fisabilillah, Asnaf Gharimin, and asnaf Ibnu Sabil. These asnaf has described in Surah At-Taubah verse 60.

إِنَّمَا الصَّدَقَتُ لِلْفُقَرَاءِ وَالْمَسْكِينِ وَالْعَمَلِينَ عَلَيْهَا وَالْمُؤَلَّفَةِ قُلُوبُهُمْ وَفِي الرِّقَابِ وَالْغُرْمِينَ وَفِي سَبِيلِ اللَّهِ وَأَبْنِ السَّبِيلِ ۗ  
فَرِيضَةً مِّنَ اللَّهِ وَاللَّهُ عَلِيمٌ حَكِيمٌ ﴿٦٠﴾

“Zakah expenditures are only for the poor and for the needy and for those employed for it and for bringing hearts together and for freeing captives [or slaves] and for those in debt and for the cause of Allah and for the traveler - an obligation by Allah. And Allah is Knowing and Wise”. (Surah at-Tawbah: verse 60).

According to Laila (2014) from Institute of Hazrat Mohammad SAW proved that zakat is an Islamic charitable fund and therefore no form of interest or profit can be made from it. Based on the report from this institution has identified that zakat can play a role in improving food security and alleviating poverty. Historically zakat has played a key role in alleviating poverty by mobilizing resources. It has helped in attaining social justice and empowering the poor. This research suggests an innovative means of utilizing zakat funds for contributing to the attainment of food security. The principal drawbacks of the small agro-producers are the lack of institutional support in sourcing, training, market access and storage. The zakat based model shall address these issues and thereby boost agricultural output Moreover various safety-net programs to provide food to the needy can be enhanced and expanded through zakat funds. Moreover, Beik & Arsyianti (2016) has shown that the welfare index has increased drastically and material poverty index, as well as absolute poverty index, can be lowered. This statement supported by Beik & Irawan (2018), where according to these authors zakat gives a positive impact on community welfare and reduce poverty problem. However, based on Mahmud (2014) explains that that amount of zakat provided to the poor recipients failed to create any significant influence on their agricultural production, food expenditure, and food security status.

## MODEL SPECIFICATION AND METHODOLOGY

The specific model is focused on food availability with food production and zakat fund as indicators to measures food availability. The model specification illustrated as follow:

$$\ln fs_{it} = \alpha_0 + \beta_1 fp_{it} + \beta_2 \ln zf_{it} + \beta_3 \ln ll_{it} + \beta_4 \ln gdp_{it} + \mu_r + \tau_t + \varepsilon_{it}$$

Where the dependent variable is food security (FS), which is proxy by the Nutritional Status of Children (Aged <18 years old). The independent variables consist of Food Production (FP) and Zakat Funds. Additionally, Life Expectancy variables adopted as a control variable. Moreover, country unobserved fixed effects ( $\mu_r$ ), time-specific unobserved fixed effect ( $\tau_t$ ), and error term ( $\varepsilon_{it}$ ).

This paper will employ a panel data specification by using the random-effects model. The random-effects model is the most suitable model if the error term or the differences across countries are linked with the dependent variable. Time-invariant variables can be included in this random-effects model. The random-effects model is:

$$y_{it} = \beta_1 x_{it} + a_i + u_{it} + \varepsilon_{it} \quad \dots \dots \dots \quad (8)$$

Where  $u_{it}$  is a between-countries error and  $\varepsilon_{it}$  is a within-countries error.

Lastly, to identify whether the fixed-effects model or random-effects model is more suitable for this study, we needed to run a Hausman test, where the null hypothesis represents the random effects model and the alternative hypothesis is a fixed-effects model.

## DATA DESCRIPTION

The dataset in this paper is a panel of observation for 14 states of Malaysia. The data source for food production is from Unit Perangkaan (2018), Data Nutritional Status for children gain from Ministry of Health (2017) and Life Expectancy data gain from Department of Static Malaysia (DOSM). The data analysis covered from 2011 until 2017.

## RESULT AND DISCUSSION

Zakat Funds play an important role to increase annual charity payment which is 2.5% of one's wealth to the poor. It is aimed towards mobilization of resources from the haves to the have not. Zakat when diligently implemented can lead to the wide-scale uplifting of the poor from the vicious shackles of poverty. Zakat functions as a means to reduce inequalities and eradicate poverty. Zakat means growth, extension, and purification. Table 1 below, shows the impact of zakat fund to sustained food security in Malaysia.

**Table 1: The Impact of the Zakat Fund to Sustained Food Security in Malaysia.**

Food Security (FS)	Random Effect Model (REM)
Food Production (FP)	0.0652*
Zakat Fund (ZF)	0.1295**
Employment (L)	-0.1311
Gross Domestic Product (GDP)	-0.0182
Intercept	-0.0151
Observation	31
States	13
R-Square	0.2146
F-Test	0.59**
Breusch&PaganLagrangian multiplier	20.2***
Hausman Test	3.89

\*, \*\*, \*\*\*significant at 10%, 5%, 1%, respectively

The analysis shows that the zakat fund has a positive significant impact on food security. where when zakat fund increase 1 percent food security will increase 12.95 percent which is significant at 5 percent respectively. This result is parallel with the report from the Institute of Hazard Mohammad SAW where Zakat fund playing a very important role in sustained food security.

## CONCLUSION AND POLICY IMPLICATION

Food is very important for social development with sufficient nutrition to produce energy and to protect human bodies from infection and disease. Recently, food security has been recognized as one of the most important global issues. Mainly, the objective of this study is to examine the impact of zakat fund to sustained food security in Malaysia. Generally, this study has used data from 14 states of Malaysia from 2011 until 2017. This paper has analyzed all data by using static panel data analysis known as Random-effects model. This study has identified that zakat fund is positive significantly give an impact on food security in Malaysia.

In accordance with this study, government and zakat board can introduce new models which are known as Agro-Based Production. This new model can help Malaysia to achieve self-sufficiency in food production and minimum relying on food import and food aid. Government and zakat board can use zakat fund to train all asnaf to get involves in agriculture sectors, to use very limited resources to produce maximize on output, provide storage facilities and create access to the market to increase self-sufficiency in food production and to sustained food security in Malaysia. Besides that, Government and zakat board also can introduce Food Voucher Program and Food Bank Program to all asnaf to help them reduce their expenses on food so that they can fulfill all their basic needs. Finally the

## REFERENCES

- Ballenger, N., & Mabbs-Zeno, C. (1992). Treating food security and food aid issues at the GATT. *Food Policy*, 17(4), 264–276. [https://doi.org/10.1016/0306-9192\(92\)90086-D](https://doi.org/10.1016/0306-9192(92)90086-D)
- Beik, I. S., & Arsyianti, L. D. (2016). Measuring Zakat Impact on Poverty and Welfare Using CIBEST Model. *Journal of Islamic Monetary Economics and Finance*, 1(March). <https://doi.org/10.21098/jimf.v1i2.524>
- Beik, I. S., & Irawan, T. (2018). Dampak Zakat terhadap Kemiskinan dan Kesejahteraan Mustahik ( Kasus : BAZNAS Provinsi Jawa Tengah ), (February). <https://doi.org/10.29244/jam.5.1.37-50>
- Chen, R. S., & Kates, R. W. (1994). World food security : prospects and trends. *Food Policy*, 19(2), 192–208.
- Clay, E. (2002). Food Security: Concepts and Measurement. In *Paper for FAO Expert Consultation on Trade and Food Security: Conceptualising the Linkages*.
- Conceicao, P., Fuentes-Nieva, R., Horn-Phathanothai, L., & Ngororano, A. (2011). Food security and human development in Africa: Strategic considerations and directions for further research. *African Development Review*, 23(2), 237–246. <https://doi.org/10.1111/j.1467-8268.2011.00283.x>
- Del Ninno, C., Dorosh, P. a., & Subbarao, K. (2007). Food aid, domestic policy and food security: Contrasting experiences from South Asia and sub-Saharan Africa. *Food Policy*, 32(4), 413–435. <https://doi.org/10.1016/j.foodpol.2006.11.007>
- FAO. (2008). An Introduction to the Basic Concepts of Food Security Food Security Information for Action. *EC - FAO Food Security Programme*, 1–3. Retrieved from <http://www.fao.org/docrep/013/al936e/al936e00.pdf>
- Gelan, A. U. (2007). Does food aid have disincentive effects on local production? A general equilibrium perspective on food aid in Ethiopia. *Food Policy*, 32(4), 436–458. <https://doi.org/10.1016/j.foodpol.2006.09.001>
- Health, M. of. (2017). *National Health and Morbidity Survey 2017* (Vol. 18).
- Kinanti, K., Zaenal, M. H., & Kinanti, K. (2018). *The Role of Zakat to Strengthen The Rural Mustahiq Community Based on Entrepreneurship*.
- Laila, T. (2014). *Zakat Based Solutions to Food Security Zakat-based Solutions to Food Security*.
- Mahmud, K. T. (2014). Opinion of the zakat recipients on their food security : a case study on Bangladesh. *International Journal of Islamic and Middle Eastern Finance and Managemen*, (June 2015). <https://doi.org/10.1108/IMEFM-08-2012-0079>
- Sumatera, W., Sari, D. F., Beik, I. S., City, P. P., Sumatera, W., & Sari, D. F. (2018). *Analysis the Impact of Productive Zakat on Poverty Reduction in the Padang Panjang*.
- Thomson, A. M. (1983). Egypt: Food security and food aid. *Food Policy*.
- Unit Perangkaan, J. P. (2018). *Booklet Statistik Tanaman 2018*.
- USAID. (1992). *Policy Determination: Definition of Food Security*. PD-19.
- Zaenal, M. H., Astuti, A. D., & Sadariyah, A. S. (2017). *Change of the Poverty Rate Index on the Productive Zakat Impact : Case Study from BAZNAS Bantul Yogyakarta*.