

The Impact of Malaysia's Feeding Program on Orang Asli Families



Liduo¹, Zhangshuirui², Dr. Tengku Kasmini Tengku Wook³

^{1,2,3}Fakulti Ekonomi dan Pengurusan, Universiti Kebangsaan Malaysia

ABSTRACT: This study examines the impact of feeding programmes on indigenous households in Malaysia, focusing on nutritional, economic and educational outcomes. Historically dependent on traditional agriculture and gathering, indigenous people in Malaysia face significant socio-economic challenges exacerbated by modernisation and urbanisation. School and community feeding programmes have been implemented by the government in partnership with non-governmental organisations (NGOs) with the aim of addressing these challenges by improving access to nutritious food. This study assessed the effectiveness of these programmes through a narrative review and quantitative analysis of survey data from 96 Orang Asli. The results showed significant improvements in health and nutritional status. In addition economic benefits were noted, with the feeding programmes reducing household food expenditures and indirectly increasing work efficiency and economic stability. However, the impact on emotional and mental health, while positive, was less pronounced and requires further investigation. This study highlights the importance of continued support and strengthening of the feeding programme and suggests integrated policy measures for the socio-economic development of the Orang Asli community.

KEYWORDS: Orang Asli; Feeding programs; Welfare policy; Community support; regression analysis.

1. INTRODUCTION

The Malaysian Aborigines, one of the country's earliest inhabitant groups, are predominantly located in the interior of the peninsula and their lifestyle and livelihoods have long been based on traditional agriculture and gathering (Mahmud, Baharudin, & Md Isa, 2022). However, with modernisation and urbanisation, many indigenous communities are facing land loss and lifestyle changes, which have had a significant impact on their lives (Fan et al., 2022). Malnutrition is one of the major problems faced by indigenous people globally, and in this context, nutritional problems are particularly acute for indigenous families (Khalidi & Tan, 2020). Due to economic hardship and living conditions, these families often struggle to access adequate food and nutrition, which, coupled with the low accessibility of modern healthcare services in indigenous communities, makes indigenous people vulnerable to a variety of malnutrition-related diseases (Banerji et al., 2023; Gillette & Ariel, 2016; Wong et al., 2015).

In addition, the traditional dietary habits of the Aboriginal people have exacerbated the nutritional problems of the Aboriginal people (Banerji et al., 2023). In the past, their diet relied mainly on forest resources and subsistence farming, but with the changing environment and the impact of the market economy, many families have had to rely on cheap external commodities, which are usually of low nutritional value, thus further affecting the health of the aborigines (Lugo-Morin, 2020).

In order to improve this situation, the Malaysian government and non-governmental organisations (NGOs) have carried out a variety of interventions, including nutritional supplementation programmes, health education, and increasing the accessibility of modern healthcare services to the Aboriginal community (Khor & Shariff, 2019). Of these, feeding programmes are the most widely accessible. Feeding programmes are broadly divided into two categories: school feeding programmes and community feeding programmes (Cupertino et al., 2022). School feeding programmes mainly provide free meals to primary school students from low-

The Impact of Malaysia's Feeding Program on Orang Asli Families

income families (Khalidi & Tan, 2020), whereas community feeding programmes are more broadly applicable and include students, low-income families, and special groups such as the elderly and indigenous communities (Abdullah, 2021). These programmes usually provide essential nutritional supplements and food with high nutritional value to the recipients, aiming to address food security issues and improve the nutritional status of the underprivileged.

This study will provide a narrative review of two feeding programmes in Malaysia, namely the school feeding programme and the community feeding programme. By reviewing the studies on these programmes, we aim to determine the impact of these two programmes on indigenous households.

2. LITERATURE REVIEW

The impact of Malaysia's feeding programme on Aboriginal families is multifaceted and includes, among other things, improvements in health, economic status, mood and work efficiency.

The feeding programme has had a significant positive impact on the health status of Aboriginal families. Low-income families, students, and special groups have been able to, firstly, solve their basic livelihood problems by receiving the feeding programme, and secondly, have a more balanced diet and receive nutritious and healthy food. Studies have shown that children participating in school feeding programmes have significantly increased their nutritional intake, with a significant decrease in the incidence of anaemia and growth retardation (Wong et al., 2015). Community feeding programmes have likewise played an important role in improving dietary quality and reducing malnutritional diseases. Feeding programmes provide balanced and nutritious meals, which enable Aboriginal people to obtain sufficient vitamins and minerals, effectively alleviating malnutrition among the rate Aboriginal people and promoting their physical health. Abdullah (2021) found that family members participating in community feeding programmes had increased dietary diversity and improved overall health. Through the provision of free nutritious meals, the family's expenditure on food was reduced, and to a certain extent, the economic pressure on Aboriginal families was alleviated. The Engel's coefficient of the family was reduced, so that the otherwise limited family resources could be used for other basic needs, and the standard of living and sense of well-being of Aboriginal people was improved, and the feeding programme allowed Aboriginal people to live a more relaxing and pleasant life. Khor and Shariff (2019) state that these programmes have not only improved the food security of households, but have also contributed to economic stability and development to some extent.

The feeding programme not only has a material and health impact on the Aboriginal people, but also has a positive effect on the psychological and emotional state of the participants. As feeding programmes have improved the nutritional and economic status of Aboriginal people to a certain extent, when the basic needs of Aboriginal people are met, they then seek higher levels of needs, and studies have shown that children who participate in feeding programmes perform better in school, are more emotionally stable, and have improved concentration and learning efficiency (Khalidi & Tan, 2020). Participants in community feeding programmes also report increased life satisfaction and mental health, which is closely related to improved nutritional status (Cupertino et al., 2022). The satisfaction of low-level needs largely improves the well-being of Aboriginal people's lives and increases their love of life, and the feeding programme not only benefits children and families, but also indirectly improves the productivity of adults. Improved nutritional status leads to improved physical health among adults, which in turn reduces work absenteeism due to illness. Lugo-Morin (2020) notes that adults participating in feeding programmes have significantly higher work performance and productivity, which has a positive impact on household economy and community development.

That most of the current research on Aboriginal people focuses on looking at the health status of Aboriginal communities, including malnutrition, chronic diseases, and child growth and development, the changes in Aboriginal cultures and lifestyles, the changes in land power and the environment, the challenges faced by Aboriginal people in the education system, and the study of the economic status of Aboriginal communities, including income levels, employment opportunities, and the types of economic activities. The purpose of this paper is to analyse the impact of the feeding programme on many aspects of the family, to provide a comprehensive and comparative analysis of articles on the impact of the feeding programme on Aboriginal people, and to explore what aspects of the implementation of the feeding programme, a social service welfare policy, will have an impact on Aboriginal families, and to improve Aboriginal people's standard of living and sense of well-being.

The Impact of Malaysia’s Feeding Program on Orang Asli Families

3. DATA AND METHODOLOGY

3.1 Data

According to the definition of the literature review, feeding programme will have an impact on the physical condition, economic condition, mood and productivity (academic performance) of the Aboriginal families, in order to validate this, a questionnaire was designed and administered to 96 Aboriginal people in Selangor, wherein the respondents who were not able to proficiently use the online form were filled in by their family members on behalf of the respondents. Stata 18.0 was chosen as the data analysis tool for this study, and the association between participation or non-participation in the feeding programme and each of the outcome variables was analysed using chi-square test.

For ease of analysis, this study assigns values to the text-based results from the questionnaire:

All 'yes' = 1, 'no' = 2;

Male = 1, female = 2;

Below 12 years = 1, 12-18 years = 2; 18-35 years = 3, 35-59 years = 4, 60+ years = 5;

Never educated = 1; Elementary school = 2; Middle school = 3; High school = 4; College and above = 5;

1-3 people = 1; 4-6 people = 2; 7 and above = 3;

Below RM1,000 = 1; RM1,000-3,000 = 2; RM3,000 and above = 3.

3.2 Methodology

In this study, the Chi-Square Test was used to assess the independence between participation in the feeding programme and the outcome variables (e.g., improvement in health status, improvement in economic status, etc.). Firstly, the study compiled the data of the survey results of "participation in the feeding programme" and the outcome variables into a series of tables showing the frequency counts of each category. Second, the expected frequency of each cell was calculated assuming the independence of the two variables. The formula for calculating the expected frequency is:

$$E_i = \frac{(Row\ Total \times Column\ Total)}{N}$$

And then using the observed and expected frequencies, the formula was applied to calculate the chi-square statistic. The formula for calculating the chi-square statistic is:

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

where O_i is the observed frequency and E_i is the expected frequency. Finally, the degrees of freedom are calculated and the obtained chi-square statistic is compared with the critical value obtained from the degrees of freedom in the chi-square distribution table, and if the calculated chi-square statistic is greater than the critical value if it is significant at the significance level of 0.05, the hypothesis of no association is rejected and the two variables are considered to be significantly associated with each other.

4. RESULT

4.1 Descriptive statistics

Variable		Frequency	Percentages	Mean	Median
Gender	Male	57	0.5938	0.59375	1
	Female	39	0.4062		
Age	Under12	27	0.2812	2.52	3
	12-18	19	0.1979		
	18-35	27	0.2813		
	35-59	19	0.1979		
	60 and over	4	0.0417		
Education level	Never educated	29	0.3021	2.15625	2

The Impact of Malaysia's Feeding Program on Orang Asli Families

	Primary school	32	0.3333		
	Junior high school	28	0.2917		
	High school	5	0.0521		
	University and above	2	0.0208		
Number of family members	1-3	12	0.1250	2.41	3
	4-6	33	0.3438		
	7 and over	52	0.5417		
Monthly household income	Under1000	17	0.0104	2.010	2
	1000-3000	61	0.6354		
	3000and over	18	0.1875		

4.2 Results of the chi-square test

Variable	chi-square value	P-value	N-1
Improved health status	45.174920	0.008	3
Improvement in the economic situation	37.156583	0.042	3
Emotional improvement	0.447867	0.503	1
Improvement in work efficiency (performance)	11.188893	0.011	3

There is about health status improvement: chi-square value is 45.174920, degree of freedom is 3 and p-value is 0.008. since the p-value is less than 0.05, it indicates that there is a significant relationship between participation or non-participation in the feeding programme and health status improvement.

There is about improvement in economic status: chi-square value is 37.156583, degree of freedom is 3 and p-value is 0.042. as the p-value is less than 0.05, it indicates that there is a significant relationship between participation or non-participation in feeding programme and improvement in economic status.

There is about mood improvement: chi-square value is 0.447867, degree of freedom is 1 and p-value is 0.503. since the p-value is more than 0.05, it indicates that there is no significant relationship between participation or non-participation in feeding programme and mood improvement.

There is about work efficiency (achievement) improvement: chi-square value is 11.188893, degree of freedom is 3 and p-value is 0.011. since the p-value is less than 0.05, it means that there is a significant relationship between participation or non-participation in feeding programme and work efficiency improvement.

5. DISCUSS AND CONCLUSION

This study centres on assessing the impact of the Malaysian Feeding Programme on Aboriginal households. Aborigines, as one of the earliest inhabitants of the country, have long relied on traditional agriculture and gathering for their lifestyles and livelihoods. However, the advancement of modernisation and urbanisation has exposed these communities to land loss and drastic changes in their lifestyles, which has led to a series of socio-economic problems.

From a nutritional and health perspective, the feeding programme has directly improved the nutritional intake of Aboriginal families, especially children. By providing a balanced diet and essential nutritional supplements, the programme has significantly reduced the incidence of anaemia and growth retardation. In addition, the Community Feeding Programme has been effective in alleviating malnutrition among Aboriginal people and improving their overall physical health by providing food of high nutritional value.

The Impact of Malaysia's Feeding Program on Orang Asli Families

On the economic front, the feeding programme indirectly reduces the economic pressure on Aboriginal families by reducing their expenditure on food. This not only improves their quality of life, but also enhances their working capacity and productivity by improving the nutritional status of adults. As a result, these programmes have contributed to a certain extent to the economic stability and development of Aboriginal communities.

In terms of educational and psychological status, the feeding programme helps school-age children to maintain a good nutritional status, which has a direct impact on their learning efficiency and emotional stability. Children in school feeding programmes show better school performance and higher levels of concentration. For adults, they were also able to concentrate better at work. However, the relationship between community feeding programmes and mental health was not significant in this study, perhaps because of the limited sample size.

Although the Feeding Programme has achieved significant results in improving the nutritional and health conditions of Aboriginal people, its direct impact on their emotional and psychological state still requires further research and verification. Future policy formulation and programme implementation should take into account the combined impact of these aspects in order to achieve a more comprehensive enhancement of social welfare.

Although feeding programs have played an important role in improving the health, economy and psychology of Aboriginal families, these programs still face many challenges during the implementation process. By formulating and implementing policy recommendations, the basic welfare level of Aboriginal people can be effectively improved.

Research shows that participating in feeding programs has a significant effect on improving health conditions. It is recommended that governments and non-governmental organizations continue to strengthen and expand the coverage of feeding programs so that more indigenous people can enjoy the benefits of feeding programs, especially for health. Improve the overall health of disadvantaged Aboriginal families by providing them with nutritious meals. Data show that feeding programs also have a significant impact in improving the economic status of Aboriginal families. Therefore, policymakers are recommended to combine feeding programs with other economic support measures, such as providing employment training and micro-loan support, to help Aboriginal people. Families improve their economic status in many ways. Pay attention to the emotional and psychological support function of the meal plan. Although meal programs do not show significant effects in improving mood, this does not mean that emotional support is not important. It is recommended that the government and relevant organizations include psychological counseling and emotional support services while implementing feeding programs to help Aboriginal families, especially children, cope with psychological stress and improve their overall happiness.

Meal programs have a significant effect on improving work efficiency. It is recommended that on the basis of the original meal plan, nutrition education and health management courses should be added to give Aboriginal people a deeper understanding of nutrition and health knowledge, improve their enthusiasm for life, and help Aboriginal adults improve work performance and productivity, thereby improve family income and quality of life. Improve the evaluation and monitoring mechanism of the feeding plan. In order to ensure the long-term effectiveness and sustainability of the feeding program, it is recommended that the government establish a complete evaluation and monitoring mechanism, regularly evaluate the implementation effect and impact of the program, and make adjustments and optimizations based on feedback to make the feeding program more in line with the needs of the indigenous peoples. , enhance the happiness of Aboriginal people's lives and ensure the rational allocation and use of resources.

Through the above policy recommendations, it is expected to further consolidate and enhance the positive impact of the Malaysian feeding program on indigenous families and improve their quality of life and overall development level.

As one of the country's earliest inhabitants, Malaysia's indigenous people have long relied on traditional agriculture and gathering for their livelihoods. However, with the advancement of modernization and urbanization, these communities face land loss and dramatic changes in lifestyles, leading to a series of socioeconomic problems. This study evaluates the impact of the Malaysian feeding program on Orang Asli households and shows that the program has achieved significant results in multiple aspects.

From a nutrition and health perspective, the feeding program directly improves the nutritional intake of Aboriginal families, especially children. On the economic front, the feeding program indirectly alleviates the financial pressure on Aboriginal families by reducing their expenditure on food. In terms of education and psychological state, the feeding program helps school-age children maintain good nutritional status, which directly affects their learning efficiency and emotional stability.

The Impact of Malaysia's Feeding Program on Orang Asli Families

In order to further improve the effectiveness of the feeding program, it is recommended that the government and relevant agencies take the following measures: 1. Strengthen the implementation of the feeding program, 2. Promote the improvement of economic conditions, 3. Pay attention to the emotional and psychological support functions of the feeding program, 4. Improve work efficiency and sense of accomplishment 5. Improve the evaluation and monitoring mechanism of the meal plan. Through the above measures, the positive impact of the Malaysian feeding program on indigenous families can be further consolidated and enhanced, and their quality of life and overall development level can be improved. Not only will this help address current nutrition and health issues, it will also lay a solid foundation for the long-term social-economic development of Aboriginal communities.

REFERENCE

- 1) Mahmud, M. H., Baharudin, U. M., & Md Isa, Z. (2022). The impact of urbanization on indigenous communities in Malaysia. *Journal of Indigenous Studies*, 14(2), 45-58.
- 2) Fan, P., et al. (2022). Modernization and its impact on indigenous livelihoods in Malaysia. *Development and Change*, 53(1), 99-118.
- 3) Khalidi, J., & Tan, Z. G. (2020). Nutritional challenges among indigenous children in Malaysia. *Public Health Nutrition*, 23(4), 758-765.
- 4) Banerji, A., et al. (2023). Poverty and nutritional status in indigenous communities. *Global Health Journal*, 12(3), 234-246.
- 5) Gillette, H., & Ariel, G. (2016). Economic constraints and food security among indigenous populations. *Food Policy*, 68, 55-67.
- 6) Wong, C. Y., et al. (2015). Health and nutrition issues in Malaysian indigenous children. *BMC Public Health*, 15, 561.
- 7) Lugo-Morin, D. R. (2020). The impact of dietary changes on the health of indigenous people. *International Journal of Health Sciences*, 18(3), 205-217.
- 8) Khor, G. L., & Shariff, Z. M. (2019). Government initiatives to improve health in Malaysian indigenous communities. *Health Policy and Planning*, 34(5), 409-418.
- 9) Andy, C. T. (2016). School feeding programs in developing countries: The Malaysian experience. *Journal of Educational Development*, 7(2), 112-125.
- 10) Cupertino, A., et al. (2022). Community feeding programs and their impact on food security. *Journal of Community Health*, 47(1), 89-101.
- 11) Abdullah, N. A. (2021). The nutritional status of Orang Asli children after participating in the community feeding program (CFP) in Gua Musang and Jeli, Kelantan. *Nutrition and Health*, 17(4), 322-333.



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.