Local Voices, Food Security Challenges: Insights into Malacca's Processed Food Landscape

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ABSTRACT

For many households in Malacca, incomes have not kept pace with rising food prices. National food policies and subsidies have yet to close this gap, leaving low- and middle-income families struggling to afford safe and nutritious food. Local conditions add to the pressure, including high living costs, disruptions in food distribution, uneven stock allocation by suppliers and vendors, and enforcement that often takes place only after problems have occurred. Using the Sustainable Livelihoods Framework (SLF), we explored how local market conditions, hoarding and Malacca's heavy dependence on imported food affect food access. This exploratory qualitative case study involved semi-structured interviews with six participants, comprising low- and middle-income residents, small food vendors, and an enforcement officer from the Ministry of Domestic Trade and Cost of Living (KPDN). Households reported buying smaller quantities, turning to cheaper foods they would otherwise avoid, and facing growing financial stress. Vendors described irregular deliveries from distributors who gave priority to bulk buyers. These accounts point to the need for closer oversight of food distribution, subsidies that better reach households in need, direct trading relationships between producers and vendors, and stronger community support to improve food access and reduce vulnerability to supply disruptions.

Keywords: Food Security, Malacca, Policy Enforcement, Selective Distribution, Supply Chain Inefficiencies, Sustainable Livelihoods Framework

INTRODUCTION

Food security depends on people having enough safe and nutritious food, with the physical, social and financial means to access it. Malaysia's National Agro-Food Policy 2.0 was developed to support this goal. Yet low-income households continue to face difficulties with food availability and affordability, partly because regional development has not kept pace with urban growth in some areas. In Malacca, food price inflation has reached 6.1%, adding to household expenses. Local trading practices make the situation more difficult. Wholesale traders apply price increases unevenly, favouring bulk buyers, while a small number of large traders control the supply of staple foods. At the same time, local food production continues to decline as imports increase. Although price controls are in place, enforcement often begins only after problems have emerged.

This study explored how households in Malacca experience rising food costs and how these pressures influence their food choices. It also examined stakeholders' views on supply chain practices, particularly selective selling, and how food distribution is regulated and enforced in the state. Much of the recent Malaysian research has focused on national policies, broader economic factors and price trends. Ali (2024), for example, examined the macroeconomic determinants of food security, while Firdous and Ramish (2023) investigated inefficiencies in reverse logistics. Latiff et al. (2023) studied mental health stress among low-income households, and Ahmad and Rahman (2024) reviewed sustainability in urban households. Other studies have addressed issues closer to

the focus of this research. Zainuddin et al. (2024) examined public views on community food access, while Sani et al. (2025) explored the difficulties of putting national policies into practice.

Studies at this scale are useful, but few of them look inside a single state. We found little evidence on how market power, selective distribution and reactive monitoring affect food access at state level, and this paper tries to address that gap. We use the SLF to connect wider economic pressures with daily conditions in Malacca, drawing on interviews with households, small food vendors and a KPDN enforcement officer in urban and semi-urban parts of the state.

The framework is useful to us analytically because it helps explain how weak state-level institutions and thin household assets together shape the food system when prices rise. It has practical value as well, since the evidence it organizes could help local authorities target subsidies, tackle supply chain problems and move from reactive enforcement toward proactive, digital monitoring. Section II reviews literature published between 2021 and 2026, and Section III sets out the qualitative case-study method, including how interviewees were selected and how the data were analyzed. Section IV presents the findings and compares them with earlier studies. Section V concludes by showing how each objective was met, then offers policy recommendations and directions for further research.

LITERATURE REVIEW

A. Conceptualizing Food Security and Local Perspectives

Having enough food is only one part of food security. People also need food that is safe, of decent quality and culturally appropriate, and they need to be able to obtain it with dignity. In Malaysia, national indicators often hide how vulnerable particular households and communities are, and much of that vulnerability comes from socio-economic and infrastructure gaps. Ali (2024) defines a local perspective as the study of lived experience within a defined geographical area, which in practice means asking residents and small traders what they observe and how they cope. Work of this kind in Malacca has brought to light informal supply routes, discriminatory pricing and regulatory gaps that top-down policy reviews seldom detect.

B. Impact of Rising Food Prices on Households

Rising food prices gradually reduce household purchasing power. For low-income B40 families, food already accounts for a substantial share of spending, and the quality of their diets often declines as this share grows. Studies have shown that these households replace fresh foods and lean animal protein with cheaper alternatives that are high in calories but low in nutrients. Over time, these changes increase the risk of malnutrition and chronic disease. The financial pressure also affects emotional well-being. Latiff et al. (2023) found that sharp price increases caused considerable distress, especially among caregivers who faced the daily worry of providing enough food for their families.

C. Supply Chain Bottlenecks and Market Practices

The way the supply chain operates affects both the availability and price of food. Poor transport infrastructure and limited cold storage lead to greater losses of perishable goods and delays in replenishing stock. When food passes through several intermediaries, each adds a margin, leaving retailers and consumers to bear the accumulated costs. Some wholesalers also hoard supplies during shortages, further raising the retail prices of essential foods. Small vendors and consumers face additional difficulties because of selective selling in wet markets and informal trading networks, where access to stock often depends on competition among buyers and whom the seller trusts.

D. Regulatory Mechanisms and Enforcement Deficits

Malaysia has formal regulatory structures, but monitoring and enforcement are often ad hoc and under-resourced. Inspections usually happen in response to public complaints rather than on a planned schedule. Informal and semi-urban markets are especially open to manipulation because they lack digital tracking tools such as real-

time inventory systems or IoT devices. The National Food Security Policy Action Plan 2021–2025 sets out a policy framework, yet few small traders or consumers know much about it, which weakens compliance and public scrutiny alike.

E. Theoretical Framework

We based our analysis on the Sustainable Livelihoods Framework (SLF) developed by DFID. Ivankova (2023) describes a theoretical framework as a systematic way for researchers to interpret empirical data, and we used the SLF in that sense. Our adaptation appears in Fig. 1, where external shocks act on a household's capacity to adapt through five linked components:

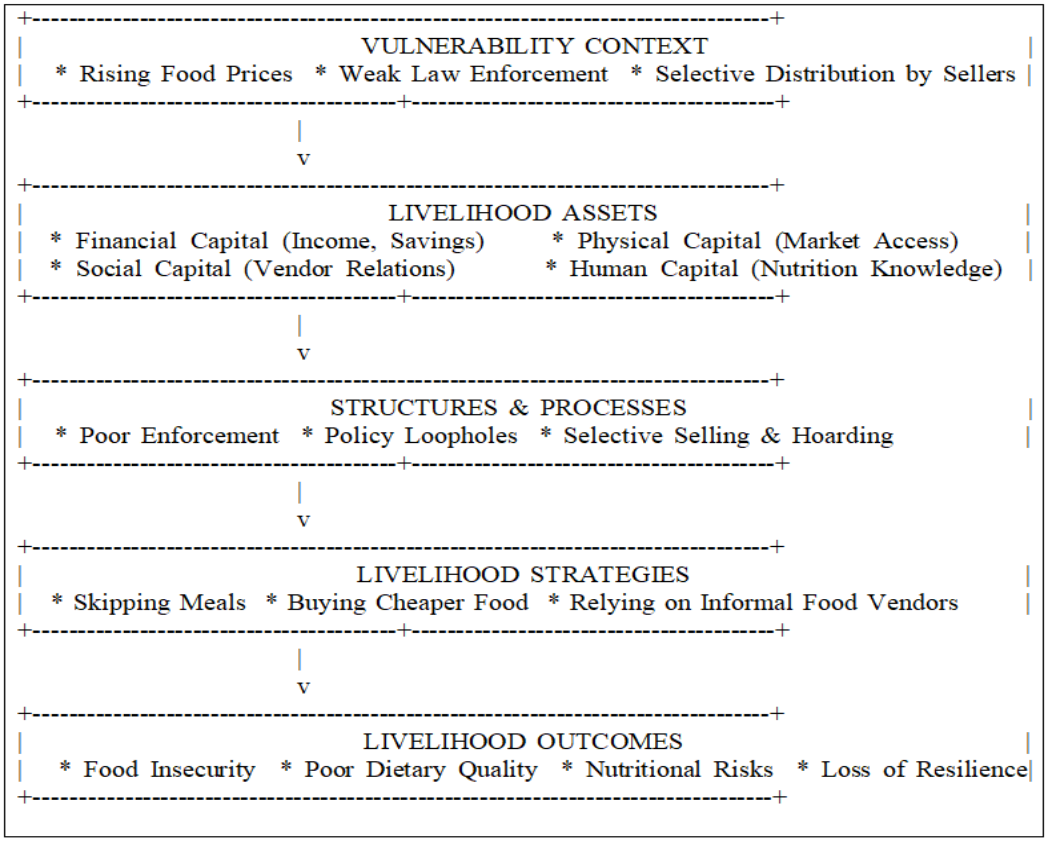


Fig. 1: Conceptual mapping of the Sustainable Livelihoods Framework (SLF) applied to local food security in Malacca

At the top of Fig. 1, the Vulnerability Context holds the external pressures of food price inflation, weak policy enforcement and selective selling. These press directly on household Livelihood Assets, by which we mean financial savings, physical access to markets and social ties with vendors. Structures and Processes sit between the two, and it is here that policy loopholes and reactive oversight allow hoarding and unfair stock allocation to get worse. Vulnerable households respond with Livelihood Strategies that harm them, such as cutting portions, substituting foods or skipping meals entirely. What follows in the Livelihood Outcomes is deeper food insecurity, poorer nutrition and weaker economic resilience.

RESEARCH METHODOLOGY

A. Research Design and Strategy

The study followed a qualitative case study design that was both exploratory and descriptive. We wanted an in-depth understanding of how people experience food insecurity in their own context, which survey figures alone could not have provided.

B. Case Study Method

A case study works well for complex social problems that sit within clear geographical boundaries. Keeping the study within Malacca meant we could look closely at local market behavior, at how the supply chain operates, and at how enforcement is carried out in practice.

C. Sampling Design and Target Population

We used purposive non-probability sampling so that every participant had direct experience of Malacca's food distribution system. Participants came from three stakeholder groups, each tied to one research objective: low-to middle-income households (RO1), small food vendors (RO2) and enforcement officers (RO3). Households were recruited through personal contacts, while vendors were approached at their stalls. We stopped recruiting at six primary respondents from urban and semi-urban areas, once the interviews had stopped producing new themes (Table I).

Table I: Demographic Profile Of Study Respondents

Respondent ID	Name	Age	Location	Stakeholder Category
A	Ahmad	28	Durian Tunggal	Low-Income Household
B	Hidayu	40	Melaka Pindah	Middle-Income Household
C	Kamariah	46	Durian Tunggal	Low-Income Household
D	Hazwan	37	Batu Berendam	Small Food Vendor
E	Siti Najiha	33	MITC	Enforcement Officer (KPDN)
F	Khadir	56	Ayer Keroh	Small Food Vendor

Respondents A and C are low-income residents of Durian Tunggal, and Respondent B comes from a middle-income household in Melaka Pindah (Table I). D runs a food stall in Batu Berendam and F has one in Ayer Keroh. Respondent E is a KPDN enforcement officer based at MITC. Between them, the six cover household consumption, retail trade and regulatory oversight.

D. Data Collection and Analysis Method

The semi-structured interviews took place between November and December 2025. Some were face to face and others ran over Google Meet, and each lasted roughly 30–45 minutes. All were conducted in Bahasa Melayu and recorded with the participants' consent. We transcribed and translated the recordings ourselves, so the quotations in Section IV are our translations. For the analysis we followed Braun and Clarke's thematic analysis with manual coding, then checked the resulting themes against secondary sources, including DOSM reports, KPDN policy documents and the academic literature.

DATA ANALYSIS AND DISCUSSION

A. Impact of Rising Food Prices on Household Affordability and Dietary Choices (RO1)

Across both income groups, the clearest finding was that rising prices have cut into what households can afford. The thematic analysis grouped the effects on households into five dimensions, which are mapped in Fig. 2 and summarized in Table II.

Table Ii: Respondent Matrix On Household Experiences And Dietary Choices (Ro1)

No.	Key Analytical Sub-Themes	A	B	C	D	E	F
1	Increase in Monthly Food Expenditure	✓	✓	✓	✓		✓
2	Reduction in Food Quantity Purchased	✓	✓	✓			✓
3	Changes in Dietary Patterns	✓	✓	✓	✓		✓
4	Household Coping Strategies	✓	✓	✓			
5	Emotional and Financial Impact	✓	✓	✓			

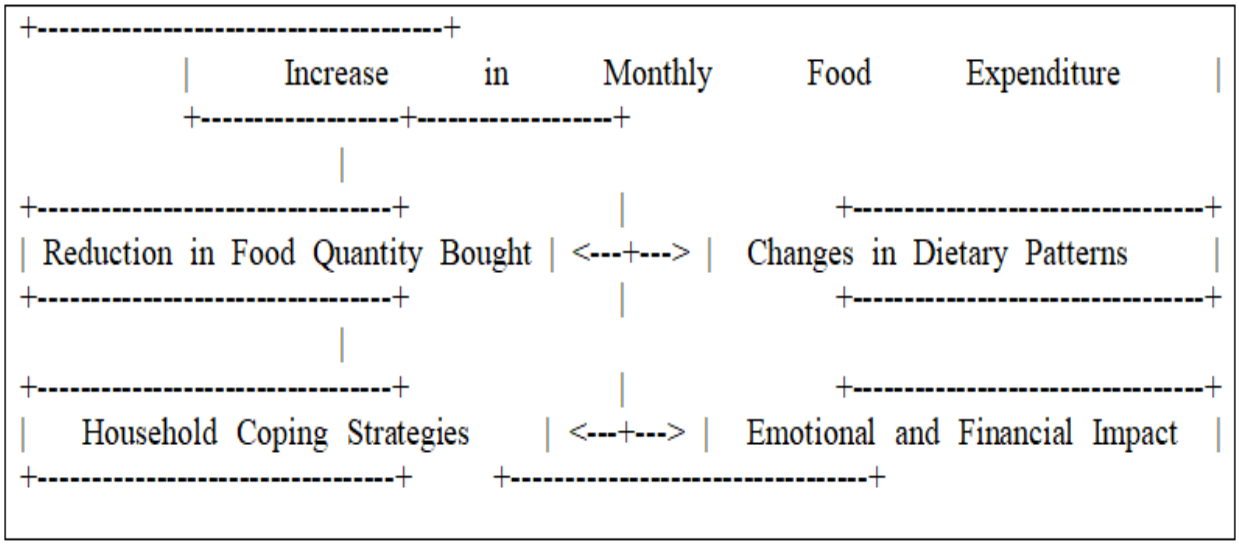


Fig. 2: Conceptual thematic mapping of household food affordability and dietary responses (RO1)

All three household respondents (A, B and C) said their food spending had risen noticeably (Table II and Fig. 2). Day to day, that meant buying less, cooking differently and worrying more. Vendors D and F noticed the same thing from behind the counter, with customers choosing cheaper local items and smaller portions so their money would stretch further.

Respondents A and C described these changes in concrete terms:

Respondent A [Low-Income Household]: *"Before this, RM150 was enough for one month, now RM150 is no longer enough. Now it needs about RM180 just to cover food for the whole month"*

Respondent C [Low-Income Household]: *"The prices have increased. Although we buy the same items, the money finishes faster now"*

Respondent A [Low-Income Household]: *"Previously, we ate chicken about three times a week. Now, it has been reduced to about two times a week. Sometimes, we replace chicken with fish depending on prices"*

Respondent C [Low-Income Household]: *"Sometimes it is stressful thinking that the prices continue to rise, yet we have to eat"*

Critical Discussion & Acceptance of Results

In these accounts, B40 families protect the household budget at the expense of nutrition, using whatever short-term coping strategies are open to them. This fits earlier work. Mohamad et al. (2022) reported that food inflation

in Malaysia is outpacing income growth and hitting lower-income groups hardest, and Ismail et al. (2023) linked food insecurity, including the move from fresh poultry to cheap, energy-rich carbohydrates, with higher health risks among the poor.

Similar Finding (Results Acceptance): Food inflation hits B40 household budgets disproportionately and forces families to cut back on food [2022, Mohamad et al.]. According to Mohamad et al. (2022), higher food costs had eroded the real purchasing power of Malaysian households, and our interviews put a figure on that erosion. Respondent A's monthly food bill rose from RM150 to about RM180, even though the household was buying less. Like the poorer households in Ismail et al. (2023), Respondent A also turned away from fresh poultry, cutting chicken from three meals a week to two.

Contradictory Finding: Rabean et al. (2022) suggested that urban agriculture (UA) can protect low-income households from food price shocks. We saw no sign of this in Malacca. Every B40 household in our sample bought all of its food from retail outlets, which meant each price increase reached them in full.

B. Supply Chain Practices and Selective Distribution (RO2)

Small vendors said supply had become unreliable for buyers of their size. In their account, suppliers served other customers first, and every layer of the chain added a mark-up before the goods reached them. Coding produced five sub-themes on the supply chain (Table III and Fig. 3).

Table Iii: Respondent Matrix On Supply Chain Practices And Distribution Dynamics (Ro2)

No.	Key Analytical Sub-Themes	A	B	C	D	E	F
1	Inconsistent Supply of Essential Food Items	✓		✓	✓	✓	✓
2	Distribution Practices and Buyer Prioritization			✓	✓	✓	✓
3	Logistic and Transportation Challenges				✓	✓	✓
4	Role of Intermediaries and Middlemen in the Supply Chain				✓	✓	✓
5	Impact of Supply Chain Practices on Food Affordability	✓	✓		✓	✓	✓

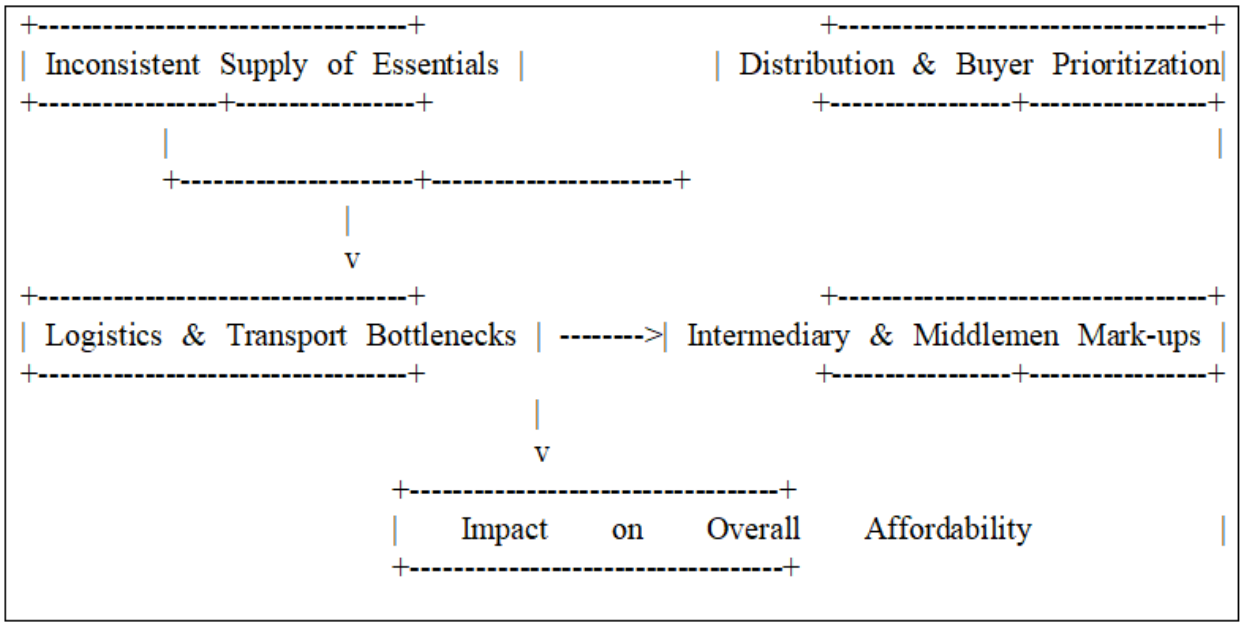


Fig. 3: Conceptual thematic mapping of supply chain bottlenecks and selective distribution (RO2)

Table III and Fig. 3 follow the path from unstable wholesale supply to higher retail prices. Respondents D, E and F said intermediaries and late deliveries raise procurement costs. Because selective distribution favors commercial bulk buyers over small vendors, households end up paying the difference (Respondents A and B).

Both vendors raised this problem, and so, from the other side of the market, did the KPDN officer:

Respondent D [Small Food Vendor]: *"Goods such as cooking oil that appear important to the business are sometimes hard to get with suppliers especially during the rush hours... Suppliers are normally concerned with customers who buy bulk purchases"*

Respondent F [Small Food Vendor]: *"With bulk buyers and regular customers it is easy to get supply as compared to small buyers... When deliveries are delayed, we need to ask for other suppliers and the price is normally above that"*

Respondent E [KPDN Enforcement Officer]: *"Based on enforcement observations, there are cases where suppliers or wholesalers prioritise bulk buyers or regular commercial customers when supply is limited... Delays in delivery, increased fuel costs, and disruptions in transportation routes can affect the distribution of food items"*

Critical Discussion & Acceptance of Results

What emerges from the supply chain findings is a power imbalance that works against small traders. Ahmad and Rahman (2024) argued that informal supply chains, which rely on trust and order volume, break down when supply gets tight. Zainuddin et al. (2024) found suppliers favoring large commercial buyers over small retailers. Atkin and Donaldson (2022), for their part, showed that each extra intermediary adds a markup to the final price.

Similar Finding (Results Acceptance): Suppliers tend to prioritise large commercial buyers, making it harder for small retailers to secure stock (Zainuddin et al., 2024). Respondents D and F described difficulties obtaining cooking oil during busy periods and having to buy from more expensive suppliers when deliveries were delayed. Atkin and Donaldson (2022) found that longer chains of intermediaries increase the final price of food. Respondent F raised a similar concern, attributing the higher prices paid by vendors to "more layers of middlemen".

Contradictory Finding: The cited studies do not fully account for what we saw in Malacca, where transport delays alone were enough to disrupt vendors' businesses and push local food prices up. Informal vendors entering the supply chain added a further source of instability, one that earlier work has paid little attention to.

C. Stakeholder Perceptions of Regulations and Policy Enforcement (RO3)

Respondents' comments under RO3 described enforcement that reacts to problems rather than anticipating them, whether under the Skim Harga Maksimum or the MADANI programs. Table IV and Fig. 4 summarize the themes.

Table Iv: Respondent Matrix On Food Distribution Regulations And Enforcement (Ro3)

No.	Key Analytical Sub-Themes	A	B	C	D	E	F
1	Strengthening Supply Chain Monitoring & Enforcement	✓		✓	✓	✓	✓
2	Improving Fair Distribution of Controlled Food Items	✓	✓		✓	✓	✓
3	Reducing Dependence on Intermediaries	✓		✓	✓	✓	✓
4	Enhancing Consumer Assistance & Awareness Programs	✓		✓	✓	✓	✓

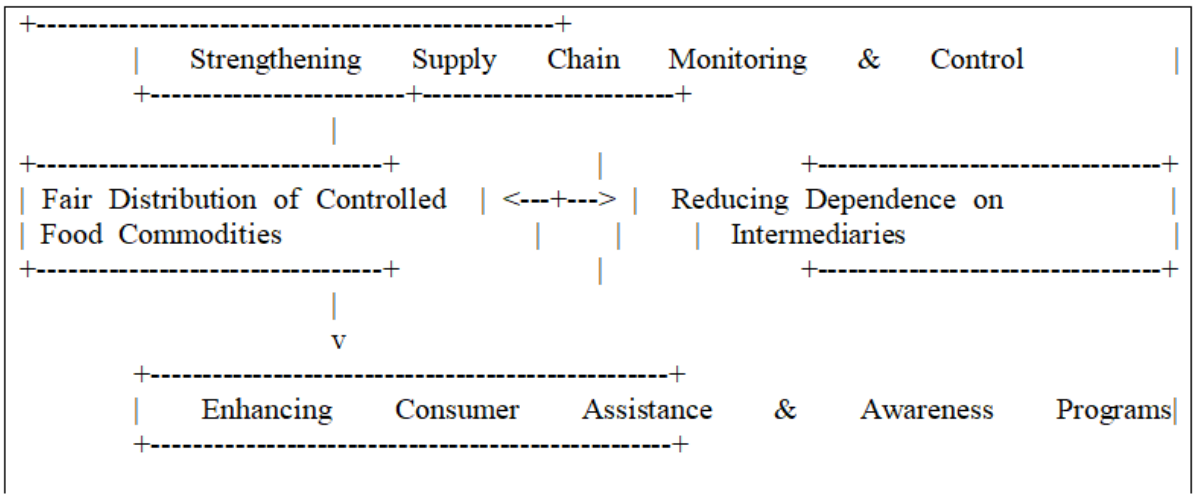


Fig. 4: Conceptual thematic mapping of regulatory mechanisms and enforcement perspectives (RO3)

Five of the six respondents (A, C, D, E and F) broadly agreed on what needs to change (Table IV and Fig. 4). They asked for closer supply chain monitoring and less reliance on middlemen, and they wanted the public to know more about assistance that is already available.

The enforcement officer and one of the vendors saw the same system quite differently:

Respondent E [KPDN Enforcement Officer]: *"KPDN Melaka enforces a few government policies, including the Skim Harga Maksimum (SHM)... Routine inspections, price monitoring, and complaint-based enforcement help prevent unfair pricing. However, challenges remain during periods of high demand or supply shortages"*

Respondent D [Small Food Vendor]: *"Authorities usually act only after receiving the complaints, and even then, the response is quite slow... Inspections are rare, and price increases still happen openly"*

Respondent E [KPDN Enforcement Officer]: *"Improvements should include strengthening monitoring at the supplier and distributor levels, increasing inter-agency cooperation, and improving data sharing"*

Critical Discussion & Acceptance of Results

These views point to a weakness in leaning on retail price caps while giving little attention to what happens further up the chain. Firdaus et al. (2021) made a similar argument, showing that fragmented enforcement and governance loopholes weaken national price controls. In semi-urban areas, Sani et al. (2025) observed, compliance suffers from both low policy awareness and reactive monitoring.

Similar Finding (Results Acceptance): Enforcement in semi-urban food markets still depends largely on complaints rather than proactive checks [2025, Sani et al.]. Sani et al. (2025) found that reactive surveillance limits how far regulation reaches, and Respondent D's experience bears this out: inspections are rare, and any action that follows a complaint is slow. Kumar and Babu (2021) showed that markets without digital tracking become opaque. That finding supports Respondent E's view that monitoring should start at the supplier and distributor level.

Contradictory Finding: KPDN (2023) reported that regular market inspections help keep retail prices stable. However, vendors and residents described selective stock releases and continued overpricing in local markets despite the price ceilings in place. The KPDN officer also acknowledged that problems persist, particularly when demand is high or supplies are limited.

CONCLUSION AND RECOMMENDATIONS

The findings for RO1 showed that rising food costs have reduced the purchasing power of low- and middle-income families in Malacca. Households reported buying smaller quantities and replacing fresh protein with

cheaper carbohydrates. For RO2, small vendors linked sharp price fluctuations to preferential stock allocation for bulk buyers, delayed deliveries and price speculation by intermediaries. For RO3, stakeholders agreed that price controls and subsidies offered some relief. Enforcement, however, was largely prompted by complaints and action taken after problems arose, leaving speculation and hoarding further up the supply chain largely unchecked.

With only six respondents from one state, the study offers a limited view of these experiences. Larger quantitative surveys of household food spending across other Malaysian states could help determine whether similar patterns occur elsewhere. Future research could also test real-time digital inventory tracking at the wholesale level and follow direct producer-to-vendor sourcing arrangements over time. Both approaches deserve closer examination for their potential to make local food systems more resilient.

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Declaration Of Generative Ai Use

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REFERENCES

1. Ahmad, M. H., & Rahman, N. A. (2024). Food security sustainability among urban low-income households in Malaysia: A systematic literature review. Malaysian Journal of Social Sciences & Humanities, 9(2), Article 2989. https://doi.org/10.47405/mjssh.v9i2.2989
2. Ali, D. H. A. (2024). Food security in Malaysia: An empirical analysis of macroeconomic determinants. International Journal of Academic Research in Economics and Management Sciences, 13(3), 176–187. https://doi.org/10.6007/IJAREMS/v13-i3/22415
3. Arifin, N. A., & Jaafar, N. (2022). Food insecurity among B40 group and food wastage in Malaysia. Journal of Advanced Research in Social Sciences, 5(4), 112–125.
4. Astro Awani. (2022, June 14). The implications of food price inflation on food security in Malaysia. Astro Awani News. https://www.astroawani.com/berita-malaysia
5. Atkin, D., & Donaldson, D. (2022). Who's getting globalized? The size and implications of intra-national trade costs (Working Paper No. 30109). National Bureau of Economic Research. https://www.nber.org/papers/w30109
6. Bank Negara Malaysia. (2022). Economic and monetary review 2022: Managing food price inflation in Malaysia. Bank Negara Malaysia. https://www.bnm.gov.my
7. Braun, V., & Clarke, V. (2021). Thematic analysis: A practical guide. SAGE Publications.
8. Creswell, J. W., & Creswell, J. D. (2023). Research design: Qualitative, quantitative, and mixed methods approaches (6th ed.). SAGE Publications.
9. Department of Statistics Malaysia. (2022). Consumer price index Malaysia 2022. Department of Statistics Malaysia. https://www.dosm.gov.my
10. Department of Statistics Malaysia. (2023). Melaka state socioeconomic report 2023. Department of Statistics Malaysia. https://www.dosm.gov.my
11. Etikan, I. (2021). Comparison of convenience sampling and purposive sampling. American Journal of Theoretical and Applied Statistics, 10(1), 1–4. https://doi.org/10.11648/j.ajtas.20211001.11
12. Firdaus, R. B. R., Tan, R. R., & Le, A. (2021). Food security in Malaysia: The policy challenges. Sustainability, 13(8), Article 4492. https://doi.org/10.3390/su13084492
13. Firdous, H., & Ramish, A. (2023). Reverse logistics inefficiencies: A multiple case study analysis of food supply chains from Pakistan and Malaysia. Operations and Supply Chain Management, 16(3), 365–377.
14. Food and Agriculture Organization. (2008). An introduction to the basic concepts of food security. Food and Agriculture Organization of the United Nations.

15. Food and Agriculture Organization. (2023). The state of food security and nutrition in the world 2023. Food and Agriculture Organization of the United Nations. https://www.fao.org/publications/sofi
16. Ismail, I. A., Che' Man, N., & Md Shah, S. (2023). Poverty-related diseases amongst Malaysia's low-income community: A review. Journal of Health and Social Policy, 11(2), 45–58.
17. Ivankova, N. V. (2023). Theoretical frameworks in mixed methods research: Current practices and emerging directions. Journal of Mixed Methods Research, 17(2), 148–167. https://doi.org/10.1177/15586898221138402
18. Khazanah Research Institute. (2022). Food environment and nutrition inequalities in Malaysia (Discussion Paper). Khazanah Research Institute.
19. Kumar, A., & Babu, S. (2021). Digital technologies for enhancing agricultural supply chains: Evidence from developing countries. Food Policy, 100, Article 102016. https://doi.org/10.1016/j.foodpol.2021.102016
20. Latiff, Z. A., Mohamed, F., & Shahar, S. (2023). Food insecurity and mental health among low-income populations in Malaysia. International Journal of Environmental Research and Public Health, 20(3), Article 1002. https://doi.org/10.3390/ijerph20031002
21. Law Insider. (2022). Definition of sampling location. Law Insider Legal Dictionary. https://www.lawinsider.com/dictionary/sampling-location
22. Lochmiller, C. R. (2021). Conducting thematic analysis with qualitative data. The Qualitative Report, 26(6), 2029–2044. https://doi.org/10.46743/2160-3715/2021.5008
23. MIDF Research. (2025, May 22). Malaysia: April CPI – Inflation remains modest. MIDF Amanah Investment Bank Berhad.
24. Ministry of Agriculture and Food Security Malaysia. (2021). National food security policy action plan 2021–2025. Ministry of Agriculture and Food Security. https://www.kpkm.gov.my
25. Ministry of Agriculture and Food Security Malaysia. (2022). Annual food security assessment report 2022. Ministry of Agriculture and Food Security.
26. Ministry of Agriculture and Food Security Malaysia. (2023). Shortening agricultural supply chains for price stability. Ministry of Agriculture and Food Security.
27. Ministry of Domestic Trade and Cost of Living. (2023). Annual report on market surveillance and enforcement. KPDN Melaka.
28. Ministry of Economy Malaysia. (2022). Household income and expenditure survey report 2022. Ministry of Economy.
29. Ministry of Finance Malaysia. (2022). Evaluation of targeted food subsidy programmes in Malaysia. Ministry of Finance.
30. Mohamad, H. A., Ismail, R., & Yusof, Z. (2022). Implications of food and nutrition security on household food expenditure: The case of Malaysia. Agriculture & Food Security, 11(1), Article 67. https://doi.org/10.1186/s40066-022-00392-7
31. National Agrofood Policy 2.0. (2021). National agrofood policy 2021–2030 (NAP 2.0). Ministry of Agriculture and Food Industry.
32. Nyimbili, F., & Nyimbili, S. (2024). Qualitative sampling techniques in social research: The value of purposive sampling. International Journal of Social Research Methods, 27(1), 45–59. https://doi.org/10.1080/13645579.2023.2214502
33. Qadri, S. (2021). Methods of data collection in qualitative research: An overview. International Journal of Research and Innovation in Social Science, 5(9), 740–744.
34. Rabean, A., Marzukhi, M. A., & Sulaiman, M. S. (2022). Ensuring urban food security in Malaysia during the COVID-19 pandemic—Is urban farming the answer? Sustainability, 14(7), Article 4155. https://doi.org/10.3390/su14074155
35. Ruslin, M., Ahmad, R., & Ibrahim, H. (2022). The use of semi-structured interviews in qualitative research: Strengths and challenges in Malaysian social research. Malaysian Journal of Social Science, 7(1), 34–45.
36. Sani, N. A. A., Ab Hamid, A. A., & Mohd, R. (2025). Literature review on Malaysia national food security: Challenge and strategy in meeting population rise. Journal of Ecohumanism, 4(1), Article 6006. https://doi.org/10.5281/zenodo.10892025
37. Saunders, M., Lewis, P., & Thornhill, A. (2023). Research methods for business students (9th ed.). Pearson Education Limited.

38. Shaharuddin, M., Zainal, Z., & Hamid, A. A. (2022). Understanding food insecurity through socio-economic vulnerability in Malaysia: A micro-level review. Asian Social Work and Policy Review, 16(2), 163–176. https://doi.org/10.1111/aswp.12251
39. Thomas, G. (2021). How to do your case study (3rd ed.). SAGE Publications.
40. Ueland, Ø., & Iversen, P. (2023). Food hoarding and panic buying: Perspectives from theory and practice. Food Systems, 7(1), 1–15. https://doi.org/10.1080/24725854.2023.2184515
41. World Bank. (2023). Food security update – Rising food insecurity in 2023. World Bank Group. https://www.worldbank.org/en/topic/agriculture/brief/food-security-update
42. Young, S. N., Gibb, H., & Aiken, L. (2021). Qualitative interviewing in applied research: Tools for understanding lived experiences. Qualitative Inquiry Journal, 27(3), 235–247.
43. Zainuddin, N. H., Nor, M. F. M., & Aziz, S. A. (2024). Public perspectives on food access and affordability: A qualitative study in Malaysian communities. Journal of Social Policy and Development, 9(1), 45–60.
44. Zainuddin, N., Nor, A. M., & Rahman, A. (2022). Selective selling and trust-based distribution in Malaysian wet markets. Journal of Consumer Policy Studies, 9(1), 55–70.