

Navigating Food Price Volatility: Gendered Consumption Patterns and Coping Strategies of Households in Ghana

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Abstract

Meeting the food needs of Sub-Saharan Africa remains a pressing challenge, as highlighted by the 2024 Global Hunger Report, yet the 2024 Global Hunger Report highlights a rising cost of nutritious diets and food insecurity in the region. At the heart of these challenges lies food price volatility (FPV), a key factor influencing the affordability and consumption of healthy foods. However, empirical evidence on how FPV impacts food consumption patterns, and the coping strategies households employ to cope with them (if any) remains scarce. This study fills this critical gap in the literature by adopting an exploratory research approach, utilising in-depth interviews and surveys conducted across enumeration areas in Ghana. The findings demonstrate that FPV compels Ghanaian households to shift their dietary patterns, prioritising cost over nutritional value. Notably, while the consumption of staples such as rice, beans, and maize has increased, there has been a marked decline in the intake of vegetables, fruits, and fats, leading to reduced dietary diversity. Further, the evidence reveals that gender dynamics also influence coping strategies male- and female-headed households adopt to mitigate FPV. We find that male-headed households typically engage in additional income-generating activities, give out lands for sharecropping, or liquidate valuable assets to cope with rising food costs, while their female counterparts rely more on kinship networks, innovative food management strategies, informal labour, and community support mechanisms. The study concludes by offering insights into policy interventions aimed at mitigating FPV and alleviating the difficult consumption trade-offs it imposes on Ghanaian households.

Keywords: Consumption decisions, Healthy diet, Food price volatility, Gender, Ghana.

JEL: Q18, D12, I31, J16

1. Introduction

Ensuring universal access to safe, nutritious, and adequate food by 2030 remains a central objective of Sustainable Development Goal 2 (SDG 2). In parallel, Africa's Agenda 2063 envisions a prosperous continent grounded in inclusive growth and sustainable development, with food security as a fundamental pillar (AU Commission, 2015). A growing body of empirical research highlights the critical role of nutrition in mitigating disease burdens and enhancing overall well-being (see, e.g., Cena & Calder, 2020; Tutelyan, 2021; Zhao & Andreyeva, 2022). However, achieving zero hunger extends beyond health and economic imperatives to encompass broader social and political cohesion (FAO et al., 2023).

Anecdotal evidence shows that food security is a pressing socioeconomic challenge in many developing regions, with Sub-Saharan Africa (SSA) being a notable example. Among the major triggers of food insecurity and dietary inequality is food price volatility (FPV) (Global Hunger Report, 2024). FPV denotes sudden and unpredictable changes in food prices over a given period of time (Kharas, 2011). In predominantly low-income economies, FPV can have profound implications for the proportion of household income allocated to food expenditures. Indeed, lessons from previous studies suggest that the impact of FPV transcends diminished purchasing power to include heightened food insecurity and dietary inequality (see, e.g., Amolegbe et al., 2021; Bellemare, 2014; Kharas, 2011). These patterns are particularly notable in the Global South, particularly SSA, which is home to 60% of the world's food-insecure population (Global Hunger Report, 2024).

Since 2017, the SSA has seen significant hikes in prices, with staple food prices rising by an average of 23.9% between 2020 and 2022. Data also shows that this period coincides with an increase in the population unable to afford a healthy diet from 76% to 90% (Consumers International, 2022). This development aligns with the prevailing circumstances in Ghana. For instance, between 2020 and 2022, food inflation surged from 7.8% to 54.1%, driven chiefly by climate change, supply chain disruptions, and the recent geopolitical fragility of the Global North (Akerle et al., 2024). During this period, the cost of a healthy diet rose from US\$3.9 to US\$6, with 39.4% of the population experiencing moderate or severe food insecurity (FAO et al., 2022).

Despite governmental interventions such as the Planting for Food and Jobs I and II, the Ghanaian government's progress in food price stability and food security has been

unsuccessful. According to MoFA et al. (2020), the number of food-insecure individuals in Ghana rose from 1.2 million in 2009 to 3.6 million in 2020, with an additional 1.6 million facing severe food insecurity. Moreover, the Ghana Statistical Service (2020) reports that 23.6% of the population is multidimensionally poor, with another 21.4% vulnerable to poverty.

Lessons from previous empirical studies suggest that FPV significantly erodes real household incomes and triggers ‘uncomfortable’ shifts in consumption patterns, including reducing the intake of nutritious diets (see, e.g., Gizaw, 2025; Abdi et al., 2024; Amolegbe et al., 2021; Brown, 2023; Okou et al., 2022). Minot (2014) finds that FPV disproportionately affects low-income rural populations, where food expenditures constitute a significant portion of household budgets, exacerbating food insecurity and malnutrition. In a similar vein, Gizaw (2025) argues that food price shocks destabilise household incomes, restricting access to adequate nutrition and reinforcing intergenerational poverty traps. Amolegbe et al. (2021) also demonstrate that staple food price hikes drastically impair food security, forcing households to adopt nutritionally deficient diets. Similarly, Brown (2023) found that FPV exacerbates educational disparities, as resource-constrained households prioritise food expenses over schooling. Research has also shown that, in import-dependent economies, FPV exacerbates living costs and erodes household welfare (Okou et al., 2022).

Despite this extensive body of scholarship, a critical gap persists - limited attention has been devoted to the *gendered dimensions* of FPV’s impact on household consumption decisions in SSA. While existing literature predominantly focuses on the implications of FPV on food security, dietary quality and health, knowledge of the *power asymmetries* and *coping strategies* men and women in both rural and urban settlements adopt to mitigate FPV in Ghanaian households are hard to find, making this study timely and policy-relevant. A rigorous empirical analysis in this regard will address the knowledge gap regarding how men, who are the primary income earners and exert greater control over household budgets, influence decisions on food purchases and allocation in periods of FPV. The study will also bring to the fore how women, who typically manage food preparation and undertake a load of unpaid work in the household, navigate barriers to economic opportunities, limited economic mobility, and financial inclusion to adapt to FPV. Besides, findings from this study can be a lesson to policymakers in other SSA countries as, in many

cases, Ghana remains in a transition phase similar to the broader, consistent with the broader regional development. Also, like in many SSA countries, Ghana is a lower-middle-income country reliant on rain-fed agriculture, a net importer of staples, and highly vulnerable to both domestic and global supply chain disruptions and food price shocks.

This study addresses these critical gaps by employing an exploratory qualitative research methodology to investigate the impact of FPV on household consumption decisions and coping strategies male- and female-headed households employ to address the same. Specifically, we set out to:

- i. How does FPV impact consumption decisions in Ghanaian households?
- ii. What coping strategies do male- and female-headed households adopt to mitigate the impact of FPV?

The remainder of this study is structured as follows: Section 2 presents a conceptual framework underpinning the analysis, while Section 3 outlines the research methodology for the empirical analysis. We discuss the findings and contributions to knowledge in Section 4 and conclude with policy recommendations in Section 5.

2. Literature review

The Harvard Gender Roles Framework (HF) provides a critical lens for analysing the intersection of gender, power, and consumption decisions (Overholt et al., 1985). The HF provides a context through which one can analyse the role of FPV in food consumption decisions and the coping mechanisms for addressing it. The HF stresses that traditional gender norms and household roles fundamentally influence how resources are allocated, how consumption decisions are made, and how households cope with or adapt to socioeconomic shocks. However, a deeper and more nuanced understanding of these dynamics necessitates moving beyond the static categorisation of gendered responsibilities to examining the complex intra-household negotiations, socio-political constraints, and structural inequalities that shape resilience and vulnerability in both male- and female-headed households.

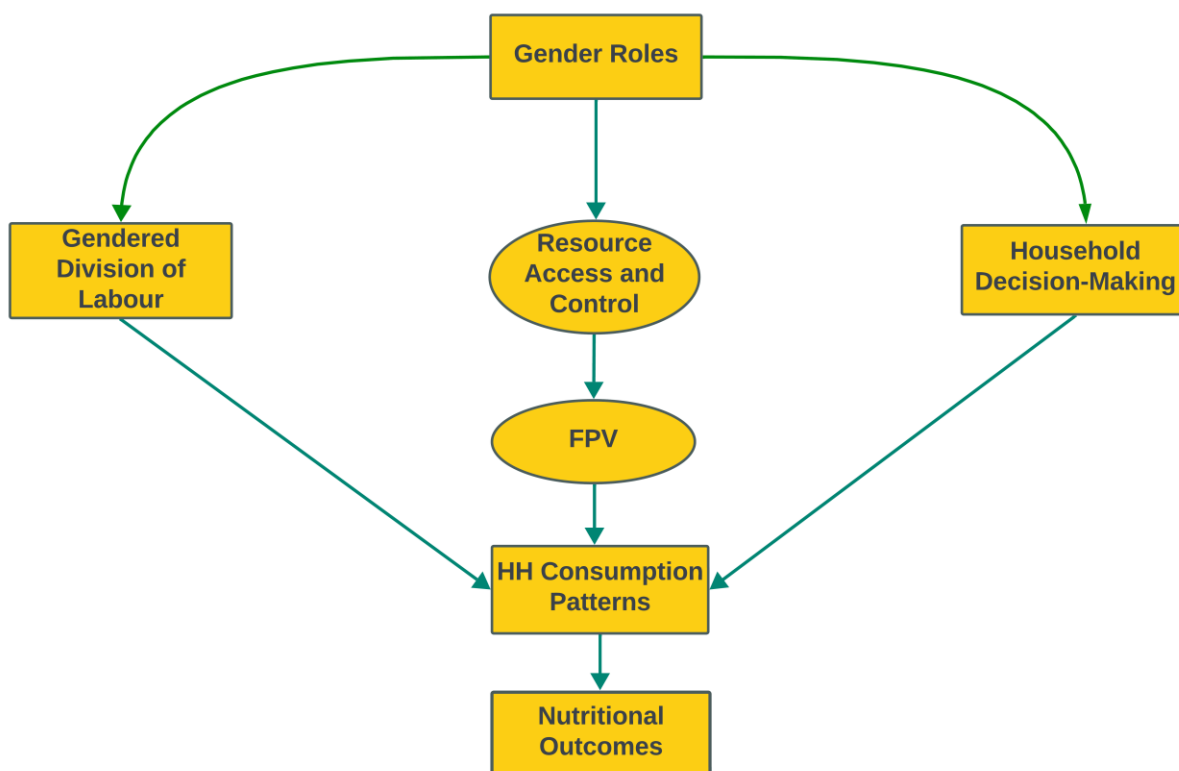


Figure 1: Harvard Gender Analytical Framework (Overholt et al., 1985)

At the heart of this framework is the gendered division of labour, which determines the extent to which men and women influence household consumption decisions, especially in relation to coping mechanisms for mitigating shocks such as FPV (see Figure 1). Women, particularly in many developing countries, bear the primary responsibility for food procurement, preparation, and distribution, yet they often do so with limited financial autonomy and constrained access to critical resources (Wiebe, 1997). Their role as household food managers positions them at the frontline of responding to FPV, for instance, managing trade-offs between food quantity and quality in times of economic uncertainty. The reality of these trade-offs is further compounded by the dual burden of domestic labour and income-generating activities, as many women in both rural and urban settings supplement household incomes through small-scale trading, informal labour, or agricultural activities. Contrarily, men's roles, particularly as household heads, tend to centre around income allocation and financial decision-making, which often influences household expenditure patterns (Tham-Agyekum et al., 2023). Lessons from research indicate that this can compel men to prioritise food over other essential needs, such as healthcare and education, in periods of food price hikes (Lundberg, 2008).

Aside from labour roles, access to and control over financial resources significantly dictate how male- and female-headed households cope with or adapt to FPV. For instance, structural inequalities in land ownership, credit access, and employment opportunities for men and women could limit the capacity of female-headed households to mitigate FPV (Acheampong & Dinye, 2015). While men typically have greater access to income-generating opportunities, which could cushion them to hedge against FPV through strategies such as migration or asset liquidation, women often rely on social capital, including informal support networks, food cooperatives, and community-based savings groups, to buffer the impact of price shocks. The reliance on such mechanisms, however, is highly contingent on socioeconomic status, education, and geographical location, with rural women facing more significant constraints in accessing formal financial systems than their urban counterparts. This disparity further reinforces the gendered dimensions of food security, as women's limited economic vulnerability often translates into reduced dietary diversity and poorer nutrition outcomes for their households.

Another critical dimension of the HF is the role of intra-household power dynamics in shaping food-related decision-making. Cultural norms often dictate that men exercise greater authority over household budgets, which can restrict women's influence on food choices, particularly in contexts where their economic contributions are undervalued (Quisumbing & Maluccio, 2000). In male-headed households, financial decision-making tends to be centralised, limiting the extent to which women can advocate for more balanced or nutritious diets (Siltanen, 2021). On the other hand, although female-headed households tend to have greater autonomy over food decisions, they may struggle with resource constraints, making them highly impacted by shocks such as FPV (Das & Mishra, 2021). It is, however, worth stressing that the degree of bargaining power within households could be contingent on factors such as knowledge, dependency ratios and age, with women with higher levels of education and income often commanding authority in consumption decisions.

Inherent in the HF is how the sociopolitical landscape influences opportunities available to women or how it fuels/mitigates gendered vulnerability to socioeconomic shocks. For example, the prevailing policies on agricultural subsidies, importation, and social protection can influence how both poor and affluent households alike make consumption choices. For instance, women, who are generally predominantly engaged in

labour markets, may receive government support, such as agricultural inputs or credit, which could enhance their resilience to FPV (Donkoh et al., 2014). Besides, unfavourable trade policies, climate change, and geopolitical conflicts can deepen structural inefficiencies that make food systems increasingly volatile. This can disproportionately affect individuals who lack economic security or political representation. The HF, thus, provides a comprehensive lens on how gender roles, control over resources, cultural norms, and sociopolitical policies feed into the immediate and long-term household-level responses to FPV.

2. Literature Review

2.1 Food price volatility and household consumption decisions

The impact of FPV on household food security and consumption patterns has been widely studied, particularly in SSA, where economic shocks disproportionately affect vulnerable populations. Rising food prices often force households to adjust their dietary habits, leading to reductions in meal frequency and food quality. Matz et al. (2015), for instance, found that in Ethiopia, higher cereal prices compelled households to consume less preferred foods, although overall caloric intake remained relatively stable. Similarly, Shabnam et al. (2016) reported a significant decline in nutrient consumption among poor households in Pakistan during the 2007–2008 global food price crisis. Likewise, McCordic, Crush, and Frayne (2019) highlighted that in Lesotho, lower-income households suffered frequent food deprivation due to FPV, reinforcing the link between economic instability and food insecurity.

Further evidence from West Africa confirms that rising food prices often force households to opt for cheaper, lower-quality foods, thereby compromising dietary diversity (see, e.g., Brinkman et al., 2010). Beyond immediate consumption choices, evidence also shows that FPV has nutritional consequences. For instance, Cornia et al. (2016) found evidence in the case of Niger and Malawi that FPV reduced dietary quality among children and mothers, increasing their vulnerability to malnutrition and disease. A paradoxical effect was noted by Conklin et al. (2019), who found that in some low- and middle-income countries, women of higher socioeconomic status experienced rising obesity rates as they substituted nutrient-dense foods with cheaper, energy-dense alternatives during food price inflation. However, Heady (2018) presented a contrasting

perspective, arguing that in agricultural-dependent economies in SSA and East Asia, higher food prices could sometimes reduce poverty by increasing household wealth through enhanced agricultural productivity. These findings highlight the complex relationship between FPV, food security, and household resilience.

While the impact of FPV on food security is well documented, lessons on its gendered effects are now emerging. Some studies have shown that female-headed households in SSA are particularly vulnerable to FPV, as they are often net buyers rather than sellers of food. A study by Minot and Dewina (2015), for instance, found that in Ghana, female-headed households experience more severe negative net benefit ratios following abrupt food price fluctuations. This financial strain translates into poorer food security outcomes. Addai, Ng'ombe, and Temoso (2022) also noted that across SSA, female-headed households spend less on food and exhibit lower dietary diversity, an essential indicator of nutritional well-being. Moreover, lessons from Asare-Nuamah (2021) also found that older female household heads face compounded risks due to limited labour capacity, further exacerbating food insecurity.

Shahbaz et al. (2022) reported that in Pakistan, female-headed households suffered greater declines in dietary diversity and nutrient intake, particularly in essential nutrients such as protein and iron. Similarly, Buzigi and Onakuse (2023) found that in Uganda, female-headed households and other marginalised groups recorded lower food consumption scores during pandemic-induced economic disruptions. These findings align with global trends, as Samputra and Antriyandarti (2024) demonstrated that female agricultural labourers in rural Indonesia are more prone to food insecurity than their male counterparts, highlighting systemic gender-based inequalities in rural livelihoods.

Despite extensive research on the gendered impact of FPV, a critical gap remains: the coping strategies adopted by male- and female-headed households to mitigate FPV have not been thoroughly explored. While existing studies document how FPV affects food security and dietary diversity, they offer limited insight into how different household structures respond to price fluctuations. Understanding these coping mechanisms is essential for developing targeted interventions that address gendered vulnerabilities and promote household resilience in the face of economic instability. This study seeks to fill this gap by examining the strategies male- and female-headed households employ to navigate FPV using Ghana as a case study.

3. Methods

3.1 Research design

This study adopted an exploratory qualitative research design, which, as Ulin et al. (2002) argue, provides a systematic and narrative understanding of social phenomena. Creswell (2013) emphasises that exploratory designs allow participants to share their lived experiences, making them particularly suitable for understanding complex social issues, such as FPV and its influence on household consumption decisions. This design requires the collection of rich, in-depth data from diverse participants, capturing socioeconomic nuances often overlooked in quantitative studies. The interpretive process, as highlighted by Patton (2002), enables participants to narrate their experiences, offering a comprehensive understanding of the subjective meanings attached to their socioeconomic conditions.

3.2 Study setting

The study was conducted in ten major cities across Ghana: Accra, Takoradi, Ho, Kumasi, Cape Coast, Techiman, Bolgatanga, Tamale, and Wa, each representing distinct geographical, cultural, and economic contexts (see Figure 1). The selection of these enumeration areas was deliberate to capture Ghana's economic diversity, from urban commercial hubs like Accra to agricultural centres like Techiman and Wa. This diversity is critical, as local economic activities, food production levels, and market structures can affect FPV. For instance, Accra's integration into global food markets contrasts with Kumasi's role as a domestic trade hub, while fishing activities influence coastal cities such as Takoradi and Cape Coast. This diverse setting enhances this study's capacity to generate comprehensive insights into household responses to FPV across different economic landscapes in Ghana.

3.3 Target population

The target population comprises male- and female household heads who are pivotal in managing household resources and making critical consumption decisions. This focus is crucial because household heads significantly influence food procurement, allocation, and coping strategies during FPV periods, particularly in resource-constrained settings (Quisumbing & Maluccio, 2000).

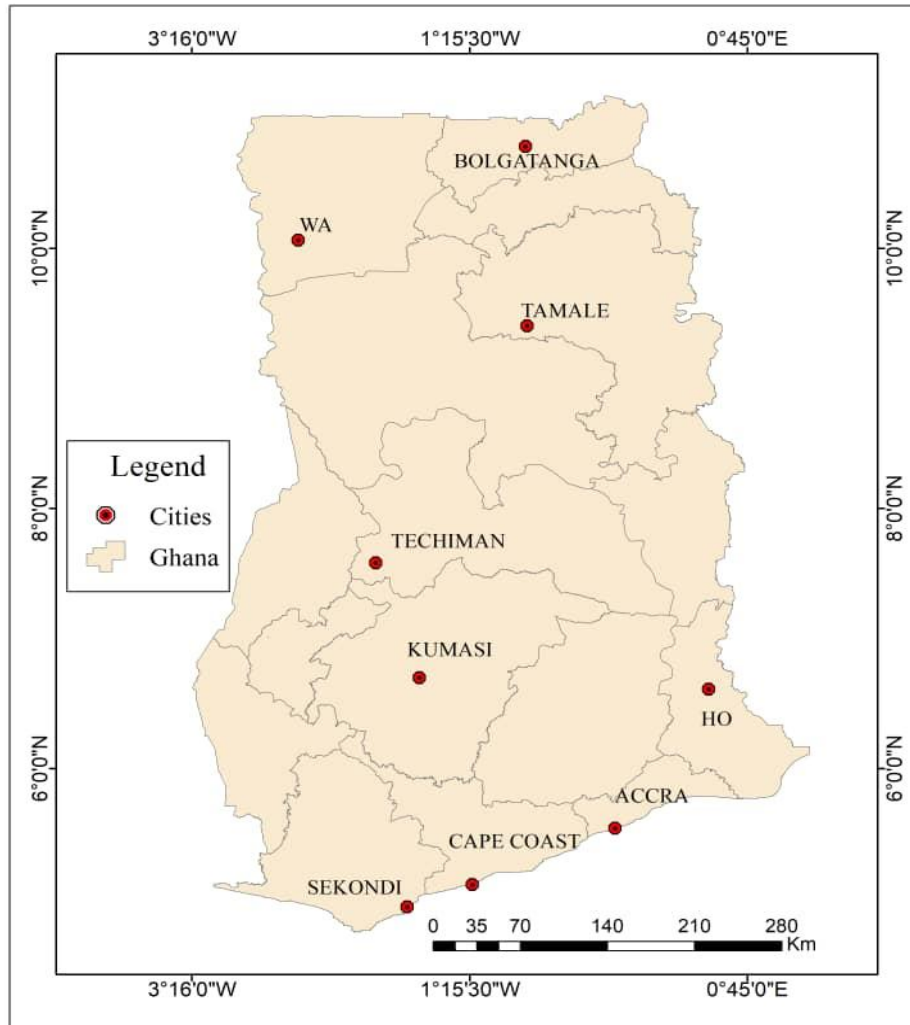


Figure 2: Map of Ghana showing the study areas

3.3 Sampling

The study employed purposive and convenience sampling to select 100 participants, comprising 49 male and 51 female household heads, for the analysis. Purposive sampling is essential because it ensures (i) the inclusion of diverse household heads who are primary decision-makers on household finances and food consumption and (ii) access to participants who met the following inclusion criteria: residency in the study area for at least one year, and willingness to participate. This approach aligns with qualitative research standards, in which thematic saturation is prioritised over statistical representation (Guest et al., 2020). Field visits were conducted across 10 major cities in Ghana — Accra, Kumasi, Takoradi, Cape Coast, Ho, Techiman, Bolgatanga, Tamale, and Wa — chosen for their geographical, economic, and cultural diversity. Notably, Accra and Kumasi represent urban commercial hubs, whereas Techiman and Wa serve as key

agricultural trading centres. Coastal cities like Takoradi and Cape Coast also highlight the influence of fishing industries, providing a broad spectrum of household experiences with food price volatility (FPV). According to Hennink et al. (2021), thematic saturation in qualitative research can be achieved with as few as 9-17 interviews in homogenous populations; however, the heterogeneity of Ghana's socioeconomic landscape necessitates a larger sample to capture the variability in household coping strategies.

Table 1: Households Interviewed

Enumeration area	Households interviewed	Male-headed households	Female-headed households
Accra	12	6	6
Cape coast	10	6	4
Takoradi	10	4	6
Ho	11	6	5
Kumasi	10	4	6
Techiman	11	5	6
Bolgatanga	12	7	5
Tamale	12	6	6
Wa	12	5	7
Total	100	49	51

Source: Fieldwork, 2024

To reduce the risk of selection bias associated with convenience sampling, we selected participants from neighbourhoods with diverse income levels and socioeconomic backgrounds. This way, we ensure the inclusion of both male- and female-headed households, allowing the study to explore gender differences in coping mechanisms during FPV periods (Palinkas et al., 2015). The sample size, although not statistically generalisable, provides a comprehensive qualitative insight into the lived experiences of Ghanaian households, addressing the socioeconomic and gender dimensions of food insecurity (Mason, 2010).

3.4 Data collection

In-depth interviews were conducted to examine FPV experiences and their influence on household consumption decisions, yielding rich, detailed insights through open-ended

discussions in an informal yet structured setting. This qualitative approach allowed for real-time probing, enabling researchers to explore specific issues in depth and encourage participants to share their lived experiences (DiCicco-Bloom & Crabtree, 2006). A semi-structured interview guide, designed in alignment with the study's objectives, ensured consistency across interviews while allowing sufficient flexibility for participants to articulate their unique perspectives on FPV, food accessibility, and household coping strategies (Creswell, 2013). Follow-up questions further enhanced data reliability by clarifying responses and eliciting additional insights, contributing to a comprehensive understanding of how FPV shapes household consumption decisions across diverse regions and demographic groups in Ghana (Merriam & Tisdell, 2015; Patton, 2002).

3.5 Data analysis

All interviews were audio-recorded and transcribed verbatim using Microsoft Word, ensuring that the participant's responses were accurately captured and reviewed for completeness. A thematic analysis guided by Braun and Clarke's (2006) six-phase framework was employed to code and identify patterns in the data. This process involved familiarisation with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing a final report. Thematic analysis enables the identification of recurring patterns and insights related to food price volatility and household consumption decisions. Additionally, a narrative analytical approach (Riessman, 2008) was used to provide a coherent structure for presenting participants' lived experiences, emphasising the socioeconomic context and gendered dimensions of household decision-making. This dual approach ensured a comprehensive analysis that captured both the thematic and individual narratives.

3.6 Ethical Considerations

This study adhered to rigorous ethical principles throughout the research process, ensuring the protection and respect of all the participants. Informed consent was obtained from each participant after providing detailed information about the study's purpose, objectives, and procedures. We assured participants of their voluntary participation and their right to withdraw at any stage without consequences. Confidentiality was maintained by securely handling all data and assuring participants that the information collected

would be used solely for academic purposes. We also assured participants of their anonymity by assigning pseudonyms to all participants. Ethical approval for the study was obtained from the relevant institutional review board, ensuring compliance with the established ethical guidelines for research involving human subjects (Creswell & Poth, 2018).

4. Results and Discussion

4.1 Descriptive statistics

A total of 100 participants participated in this study, comprising 49% male and 51% female household heads, as apparent in Figure 3. Participants' ages ranged from 24 to 75 years, reflecting a broad spectrum of life experiences that could influence household consumption decisions and coping mechanisms in response to FPV. Additionally, Figure 4 shows that the educational attainment among the participants varied, with 17% having completed basic education, 43% attaining secondary education, and 30% holding tertiary qualifications. This educational diversity provides insights into how different levels of education might shape financial literacy and household consumption strategies in response to socioeconomic shocks such as FPV. Marital status also varied, with 59% of the participants being married, while the others were single, widowed, or divorced, illustrating diverse household structures that could impact resource allocation and decision-making processes. All participants had at least one child, with the largest household comprising 19 children (see Figure 5). This variation in family size highlights the differing levels of financial pressure on households, particularly regarding food expenditure and nutritional needs, providing an ideal setting to analyse the impact of FPV on consumption and associated coping mechanisms.

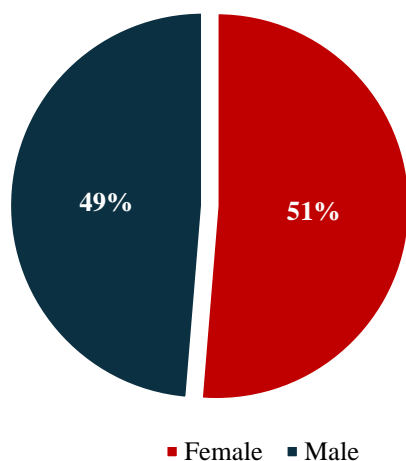


Figure 3: Sex of Participants

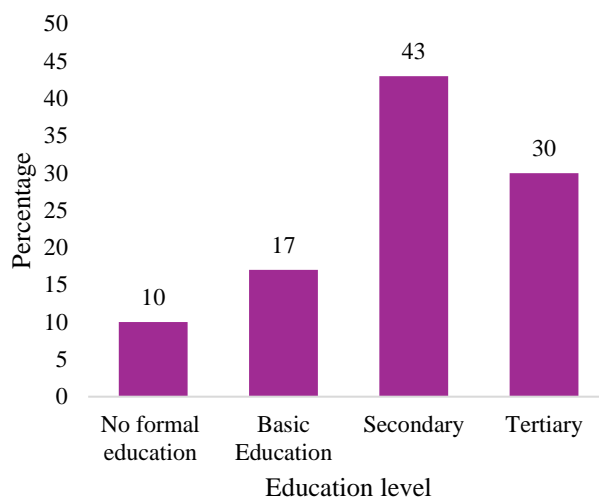


Figure 4: Education Level of Participants

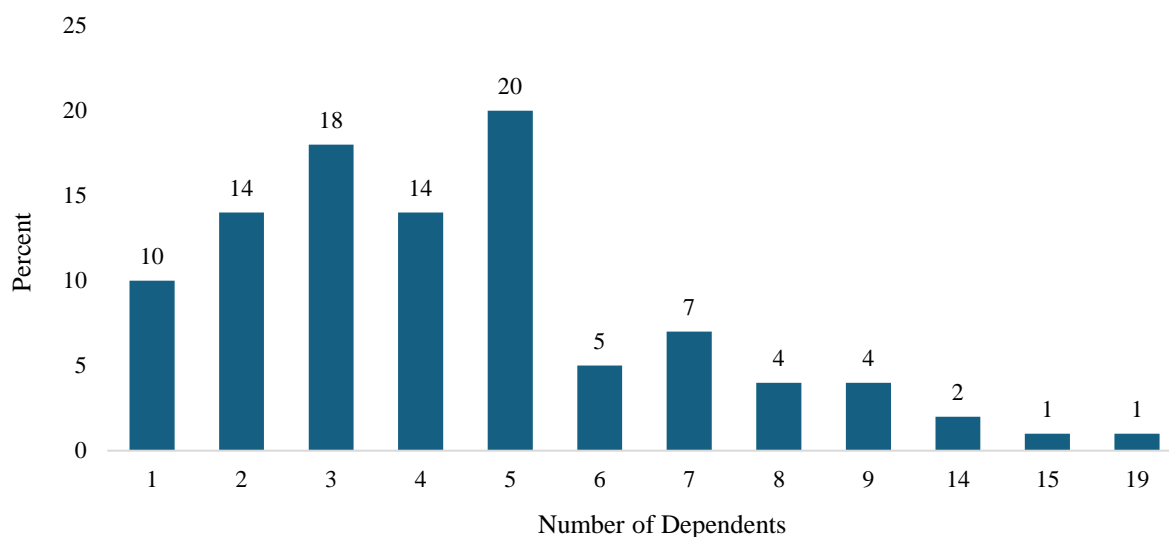


Figure 5: Number of Household Dependents

Figure 6 also highlights significant variations in household food expenditure as a proportion of total household spending, revealing that more than half of the surveyed households allocated over 50% of their total food budget. This underscores the critical financial burden unpredictable food price changes can have on households. Further, Figure 7 illustrates that female-headed households (FHHs) tend to allocate a larger share of their budget to food than male-headed households (MHHs). This finding is consistent with Donkoh et al. (2014), who observed similar trends in Ghana, where FHHs dedicated a higher proportion of their income to food expenses than their male counterparts. Recent evidence in Lufuke and Tian (2024) suggests that this trend extends beyond Ghana as FHHs in Tanzania reported higher consumption across various food categories, including bread, cereals, fish, oils, vegetables, and confectioneries, compared to MHHs. The higher food

expenditure by FHHs may be attributed to their traditional roles in food procurement and preparation, as well as their prioritisation of household nutritional needs, despite often facing economic disadvantages.

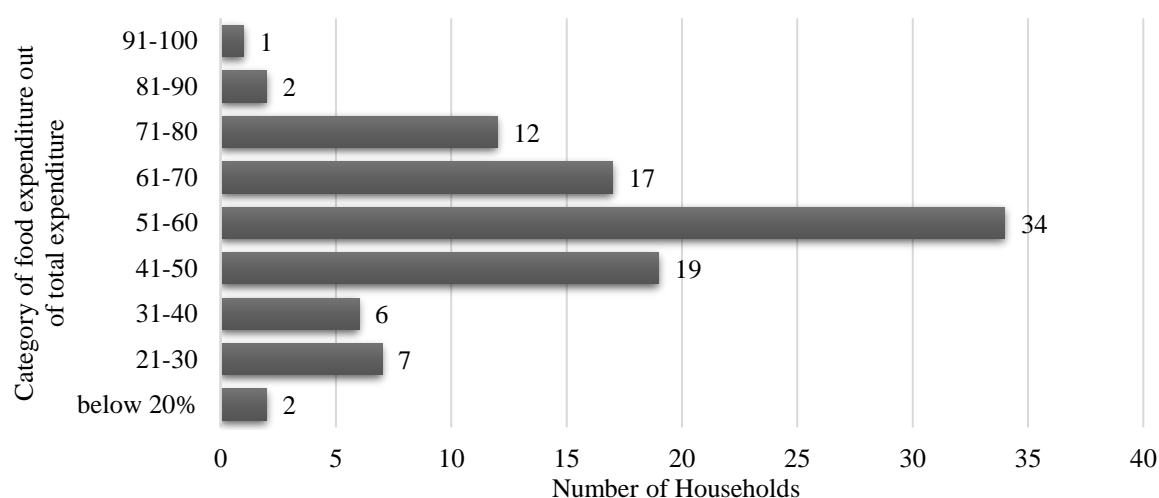


Figure 6: Distribution of Food Expenditure as a Percentage of Total Expenditure

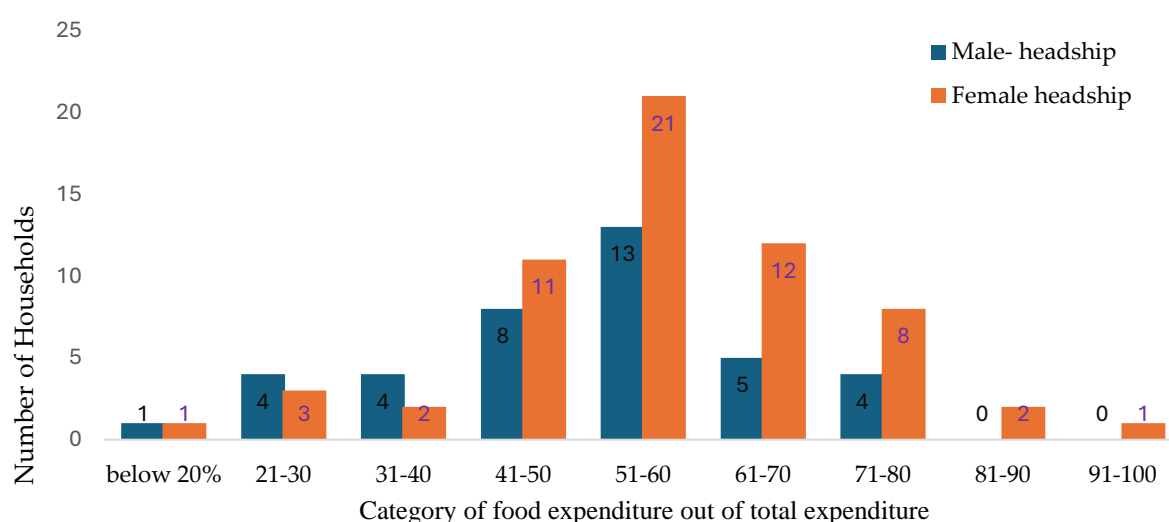


Figure 7: Distribution of Food Expenditure as a Percentage of Total Expenditure by Sex

4.2 FPV and cost of healthy foods and a nutritious diet

The cost of food items in Ghanaian retail markets has seen a surge in recent times, impacting households' consumption decisions. Participants revealed that maintaining a nutritious diet has become increasingly difficult because of the rising cost of healthy food ingredients. Many participants expressed concern about the financial burden associated with purchasing essential food groups, such as grains, proteins, vegetables, fruits, dairy products, fats, and oils. The participants' narratives suggest that the cost of a healthy meal,

including all food items, ranges from GHS80 to GHS120 per meal. This amount excludes additional items such as spices, cooking fuel, or the time required to prepare the meal, highlighting the over 60% of Ghanaians cannot afford a healthy diet, as reported in the Global Hunger Report (2024). One participant in the narrative expression said:

The amount people spend on healthy food varies from person to person, but one thing is clear: it is not cheap. Take lunch, for example, If you want to have a balanced meal, like rice or waakye with some meat or egg and vegetables, you are looking at spending at least GHS 50. And that is just if you are buying it. If you decide to cook it yourself, it might even cost you more because of the high prices of the ingredients. So, unless you have more than 50 cedis, it is hard to put together a healthy meal. (Participant 2; household head, Accra)

Some participants highlighted that vegetables, a key source of micronutrients, are costly. For instance, at GHS 20, the cost of one cabbage translates to approximately GHS5 for a single portion when sliced into four parts. Other vegetables, such as carrots, green pepper, lettuce, and cucumber, can attract an additional 5 to 10 Ghana cedis, respectively, restricting households' capacity to consume healthy diets. A household head said:

Healthy foods are expensive nowadays. Take cabbage stew, for example, something that should be simple. By the time you buy the cabbage, some carrots, green peppers, onions, and a small amount of meat or fish to make it delicious, you can easily spend around 200 Ghana cedis. And that is just for one meal! When you think about it, trying to eat healthy every day at this cost is hard for most of us. It is like you have to choose between eating well and saving money. (Participant 1; household head, Ho)

Similarly, fruits, which are a major source of minerals, have become more expensive. Participants noted that the price of four fingers of bananas has risen from GHS3 to GHS5, with a two-finger portion costing approximately GHS2.5. The price of oranges, which also used to sell at 50 pesewas, has also increased to GHS1 each. The hikes in prices of these nutritious foods have significantly influenced households' consumption decisions. Participants who keep up with FPV and maintain healthy diets are affluent households with more stable income, economic mobility, and capacities for managing socioeconomic

shocks. However, for poorer households, FPV is prohibitive such that they only consume nutritious diets, mainly when there is a windfall. Some participants said the following:

Within a week, I spend less than GHS50 on fruits. It might not seem like much, but when you add it up over the month, it is a significant amount. I try to make sure I have a variety of fruits because I know how important they are for my health. However, with prices constantly rising, even GHS50 does not go as far as it used to. (Participant 5; household head, Takoradi)

For some weeks now, I have not eaten any fruits because I cannot be spending so much on them when I can get something else that I can be satisfied. I know fruits are good for our health, but times are hard, so I have to adjust. Now, it is all about survival and not about whether I am eating well or not. The days I have money, and I can afford it, or someone supports me, are fine, but when I do not have enough money, I do not worry about taking fruits. (Participant 9; household head, Tamale)

Furthermore, in the discussions, participants revealed that proteins, which are essential sources of health and nutrition, have also been impacted by the rising cost of food items. Fish, a common protein source, costs approximately GHS10 per portion, while a single egg costs GHS3. Although fish and eggs are more affordable than other proteins, such as goat meat, participants noted that the overall cost of incorporating a variety of proteins into their diets is still significant. With a pound of beef or goat meat costing around GHS40, many Ghanaians opt for fish and eggs as alternative protein sources, even though they would have preferred more diverse options. Similarly, dairy products, integral to many Ghanaian breakfasts, have also become expensive. A tin of milk, costing GHS8, translates to approximately GHS2 for a quarter-tin portion. Views expressed by the participants include:

I remember when milk used to cost just three or five Ghana cedis, but now it has gone up to eight cedis. It is becoming harder to keep up with these prices. Even things like Fan milk and yoghurt, which used to be just one cedi, are now three cedis. It might not sound like a lot at first, but when you think about how often we buy these items, it really adds up. For families with kids who love these treats, it is a substantial change. You start to think twice before buying them, and sometimes, you have to cut back on other things to afford these basics. (Participant 6; household head, Kumasi)

I mostly buy beans, eggs, and sometimes salmon because meat is just too expensive. For instance, goat meat, which I would love to use for soup, can cost as much as three hundred Ghana cedis. It is a luxury for many of us. Even when I do decide to prepare soup with meat, I end up spending around eighty cedis, and that is just for a small portion. So, most of the time, I stick to more affordable options like beans and eggs, which are still nutritious but much lighter on the pocket. (Participant 19; household head, Cape Coast).

Grains, a staple in most Ghanaian diets, have seen a sharp rise in price. For instance, a 5 kg bag of rice, which now costs between 80 and 120 Ghana cedis, breaks down to about 16 to 20 Ghana cedis per kg. This means that a typical 200-gram portion costs between five and seven Ghana cedis. As a result, some participants have reduced grain intake, which can adversely impact their overall dietary balance and health. As a result, many households have resorted to less expensive refined grains, such as polished or processed rice (commonly known as perfumed rice), over whole, unprocessed grains. A participant from Wa said:

Local rice is much more expensive than perfumed rice. I remember a time when a cup of perfumed rice cost six cedis, and a cup of local rice was selling at seven cedis. However, prices have really surged since then. Now, a cup of perfumed rice has gone up to eight cedis. Given the trend, I can only imagine that local rice is now priced at over ten cedis per cup. It is becoming increasingly challenging to afford local rice, and many of us are having to choose the cheaper option, even though it might not be as nutritious or satisfying. The price gap is making it hard to maintain a balanced diet, especially for some of us on a tight budget. (Participant 15, male household head, Wa).

These findings demonstrate the grave impact FPV has on the cost and accessibility of a healthy diet in Ghanaian households. Participants consistently reported that maintaining a nutritious diet has become increasingly difficult due to the escalating prices of essential food items. The study found that the estimated cost of a balanced meal, including grains, proteins, vegetables, fruits, dairy, and fats, ranges from 80 to 120 Ghana cedis, which is prohibitively expensive for many households. This aligns with the findings of Brinkman et al. (2010), who observed that higher food prices across SSA forced

households to reduce not only the quality but also the quantity and diversity of their food consumption, a trend exacerbated by inflation, climate shocks, and global supply chain disruptions.

The rise in vegetable, fruit, and dairy product prices has also constrained Ghanaian households from consuming healthy diets. This trend echoes the conclusions of Cornia et al. (2016) that FPV compromises maternal and child nutrition in Malawi and Niger by reducing dietary quality. The rising costs of protein sources also hinder households' ability to prepare healthy diets, corroborating prior findings by Hodjo et al. (2024) that a surge in the prices of protein-rich foods translates into high consumption of carbohydrate-dense staples like refined grains and cassava. The shift towards refined grain alternatives, driven by economic necessity, raises significant concerns about the long-term health implications for these households, particularly in terms of nutrient deficiencies and chronic health issues, as highlighted by UNICEF (2019) in its framework on FPV and child malnutrition pathways. In Ethiopia, Matz et al. (2015) found that higher cereal prices led to fewer meals per day and increased consumption of less preferred, lower-quality foods, a coping mechanism mirrored by Ghanaian households in this study.

Our evidence underscores the call by the African Development Bank (2022) and the FAO (2023) for SSA governments to roll out targeted interventions to mitigate the adverse effects of FPV on households.

4.3 FPV and consumption decisions of Ghanaian households

The section presents results on the gendered impact of FPV in Ghanaian households. The evidence indicates that FPV imposes significant financial strain on households, particularly those from the low- and middle-income strata. The study reveals that FPV compels household heads to make difficult choices regarding the quantity and quality of food consumed, often compromising nutritional value to manage limited budgets. However, this shift has come at the expense of dietary diversity and nutritional quality. The consumption of fruits, vegetables, and animal proteins like meat and fish has significantly decreased.

For instance, some households have replaced meat and fish with more affordable options like inorganic eggs. This shift is driven by the need to put food on the table for their families. Some participants recounted:

These days, I mostly eat rice and beans because they are more affordable. I used to buy chicken and fish regularly, but now I can only afford them occasionally. It is too expensive to keep up with the way prices are going. I know I am not getting the same nutrients, but I do not have much of a choice. (Participant 3: household head, Accra)

I have started buying more perfumed rice instead of the local rice because it is cheaper, even though I know it is not as healthy. I also try to use eggs more often in place of meat because it helps me save money. Sometimes, I miss having a variety of foods, but I have to make do with what I can afford. (Participant 7: household head, Takoradi).

The financial stress from FPV has also affected the frequency of meals served in Ghanaian households. Participants reported reducing their daily meals from three to two, with breakfast often being the one sacrificed. Those who continue to consume three meals a day have also made significant compromises, notably by reducing portion size and opting for less expensive, nutritious options. Although some households manage to maintain three square meals, they emphasise consuming less balanced and satisfying food. For instance, participants from low- and middle-income households in Kumasi and Ho indicated:

I used to eat three full meals every day, but now I have cut down to just two. I often skip breakfast and wait until lunchtime. It is hard, but I have to make these changes because I simply cannot afford to eat three times a day anymore. I worry about how this might affect my health, but I do not have many options. (Participant 4: household head, Kumasi)

I have managed to keep up with three meals a day, but I have had to make many sacrifices. The meals are not as balanced or filling as they used to be, but at least I am not skipping meals. It is a struggle, though, and I am constantly worried about how much longer I can keep this up without it affecting my health. (Participant 1: household head, Ho)

The study also found that FPV impacts the frequency of food shopping in Ghanaian households. Many Ghanaian household heads report strategically shopping on designated market days, which occur every three days, to take advantage of lower prices and buy in bulk. This approach helps them mitigate the effects of rising food costs. In particular, low-

income households shop once or twice a week, while their high-income counterparts do so bi-weekly or monthly to lessen the impact of FPV on household budgets. One participant shared:

We always try to go to the market on the designated market days because that is when prices are lower. If we miss those days, we end up paying more, so we plan our shopping around them to buy in bulk. (Participant 5: household head, Wa)

Another participant explained,

I used to go to the market weekly, but now, with the prices going up all the time, I prefer to buy in bulk every two weeks or even monthly. It is cheaper that way, and I avoid having to deal with the price increases too often. (Participant 8: household head, Takoradi)

These findings highlight how Ghanaian households have been forced to adapt their food acquisition strategies in response to FPV. The study demonstrates that FPV compels Ghanaian households to shift their dietary patterns, prioritising cost over nutritional value. Notably, whereas the nutritional contents of staples such as rice, beans, and maize in meals have increased, that of vegetables, fruits, and fat have dipped, marking a decline in dietary diversity. This trend aligns with Hodjo et al. (2024), who observed that rising food prices significantly hinder the capacity of Nigerien households to consume healthy meals. The reduction in meal frequency and quality also underscores the adverse effects of FPV on nutritious diets. This finding corroborates prior evidence in Pakistan (Shabnam et al., 2016) and in China (You et al., 2014), which suggests that FPV exacerbates food insecurity and malnutrition by compromising meal frequency and nutritional depth. Similarly, Buzigi and Onakuse (2023) found that female-headed households in Uganda suffered more significant declines in dietary diversity and food security during the socioeconomic shocks.

The strategic shopping behaviours of households are also consistent with findings by Filipinski et al. (2017) and Conklin et al. (2019), who stress that households from both the high- and low-income strata employ short-term strategies to mitigate the impact of FPV on the quantity and quality of nutritious diets. However, Conklin et al. (2019) contend that the strategy does not sufficiently address food insecurity and malnutrition.

4.4 Coping strategies to mitigate FPV

This section presents findings on coping strategies Ghanaian households adopt to mitigate/adapt to FPV. The analysis revealed that these strategies differ depending on the gender, socioeconomic class, and locality of the household heads. Thus, although both male- and female-headed households are driven by the need to ensure food security, dignity and buffer against perennial food price hikes, their approaches to adjusting consumption patterns and mitigating the impacts vary. Notably, the evidence shows that male-headed households engage in additional income-generating activities, such as taking on extra jobs, venturing into artisanal mining, or selling off valuable assets, while their female counterparts reported using home management and innovation skills, social networks, and reducing non-food expenditures to adapt to FPs.

A key coping strategy men adopt is embarking on seasonal migration and income diversification. We find that men embark on rural-urban and urban-urban migration for job opportunities. By securing jobs in the construction, transport, or informal sectors, men earn additional income, part of which is remitted to support food purchases. Portions of the income earned are also invested in cooperatives or susu schemes as a buffer to smoothen consumption in the future. A participant in the coastal city of Takoradi recounted:

I am always looking for extra jobs because the money from my welding work is not enough anymore. I have had to cut down on buying materials for my trade so that I can make sure my sisters and I have enough to eat. Sometimes, we even reduce the quantity of food we buy, like getting fewer kenkeys to save some money for other necessities. (Participant 5, male household head, Takoradi).

It also emerged that men sometimes engage in formal and informal employment as a lasting strategy to cope with FPV. On temporary strategies, the study found that men in rural communities resort to casual labour opportunities such as ‘Atabrako’ and artisanal mining, popularly known as ‘Galamsey’, to improve income status and mitigate the strain of rising food costs on household budgets. Some also pinpointed a permanent motive, precisely, by establishing family businesses for their spouse, funding of which is usually secured credit from cooperatives and/or microfinance institutions. The analysis further

revealed that the former is popular among households in towns, and the latter is predominant in urban settings.

With the way food prices keep going up, I have had to start working extra hours at a bar after my regular job. It is exhausting, but it is the only way I can make sure we do not have to skip meals. I have also started choosing cheaper food options like kokonte instead of fufu. It is not what we are used to, but it helps stretch the budget further. (Participant 3, male household head, Accra).

Another major lesson from this study is that prolonged periods of FPV lead to critical coping strategies. The study reveals that persistent FPV compels men to offer their lands for sharecropping or sell off assets, including livestock, bicycles, radio, or TV sets, to sustain household food security. We uncovered that some men sacrifice personal investments or delay purchasing essential items to meet the food needs of their households. These strategies arise in cases when men are less economically mobile and/or financially excluded. The narrative highlights that sociocultural expectations positioning men as primary providers and household guardians serve as the key drivers compelling them to adopt these essential coping strategies.

Our findings indicate that men adopt coping strategies with a long-term perspective. For instance, they engage in mutual aid groups and religious associations and, in some cases, establish advocacy or pressure groups to influence central governments on matters such as agricultural support and food subsidies. Additionally, we found that communities with strong sociocultural ties form farmer cooperatives to facilitate (stabilise) market access (food supplies).

On the other hand, the findings show that female-headed households adopt similar but short-term coping strategies. Notably, the results reveal that women rely more on their home management and innovation skills, social networks, income-generating activities, entrepreneurship, or collective action (e.g., women's savings groups or food cooperatives) to mitigate escalating food costs.

The study finds that women rely on social networks and informal support mechanisms to cope with FPV. It came out from the analyses that women rely profoundly on kinship networks (e.g., aunts, parents, uncles, siblings, friends), religious affiliations and NGO-led food aid programs to access foodstuffs such as eggs, cooking oil, and staples. The

analysis further reveals that although these strategies are critical in lessening the burden of FPV on consumption decisions, they are precarious and conditional on social capital, which varies across socioeconomic groups. We find that whereas food support based on religious affiliations is popular in more urban settlements, kinship and NGO-led support are common in rural communities. A participant in Wa had to say:

When prices go up, I struggle to make ends meet. I often have to rely on my neighbours or church members to help me out, especially when I cannot afford to buy food. Sometimes, I join them on their farms, and they give me food instead of paying me with money. It is tough, but it is the only way to keep food on the table for my children. (Participant 10, female household head, Wa).

It also emerged from the analysis that women also engage in secondary activities as a source of income to cope with abrupt price hikes, albeit limited by unpaid domestic work. Notably, however, the jobs women engage in are predominantly informal economic activities such as contract washing, on-farm labour or engaging in small-scale agriculture. These additional incomes are often reinvested directly into household nutrition. Women from low-income backgrounds in urban centres opt for contract washing and home care for neighbours, while those in rural settlements offer to transport farm produce for others or work at food vending shops ('chop bars') at artisanal mining (Galamsey) sites. This strategy reflects the low economic mobility of women in Ghana. Floro and Swain (2013) noted similar patterns in urban low-income households of Bolivia, Ecuador, the Philippines, and Thailand, where women participated in food-for-labour arrangements to ensure household food security. A participant on Tamale shared:

Sometimes, when there is no money, and the prices are just too high, I go out and offer to wash clothes for people on weekends. It is demanding work, but it is better than having my children go hungry. I also had to cut back on buying rice because it is too expensive now, so we are managing with gari and other less expensive items most of the time. (Participant 4, female household head, Tamale).

Also, we find that, in low-income and rural settings, women use collective action as a key resilience strategy to mitigate the impact of FPV on dietary quality. For instance, the study uncovered that women form savings cooperatives, food exchange groups and credit associations to build a buffer against FPV. These initiatives provide access to credit, bulk

food purchases, and communal food storage, particularly benefiting those excluded from formal financial institutions. In predominantly low-income Ghana, these initiatives can be a lasting coping strategy to address FPV pressures on consumption decisions.

Dietary adjustment and food rationing are common strategies women use to ease the consumption pressures of FPV. It emerged that, in the household, women are often the first to sacrifice their food intake in favour of their husbands and children. This is driven by (i) women's motive to enable men to maintain the energy levels required to pursue income-generating activities and (ii) sociocultural norms where women are traditionally required to prioritise the quantity of food served their husbands and males in the household, even at the detriment of themselves and girls' nutritional intake. Meal adjustment is done by reducing portion sizes, substituting less nutritious ingredients for highly nutritious alternatives, or prioritising calorie-dense foods over protein-rich diets. This strategy is consistent with Quisumbing et al. (2008), who document similar behaviours in female-headed households facing food price crises in Bangladesh.

Another notable coping strategy women employ is agricultural innovation and adaptive farming practices. The survey revealed that women farmers, particularly in rural areas, employ home gardening and innovative food preservation techniques to lessen the need to visit markets, particularly in periods of high FPV. However, with the rising cost of agricultural inputs, especially drought-resistant ones and pressures on arable land, these coping strategies are likely to become less effective over time.

5. Conclusion remarks and suggestions for policy

Achieving food security in SSA remains a pressing socioeconomic challenge, with recent progress undermined by persistent FPV, the coronavirus pandemic and the Russia-Ukraine conflict. As in many SSA countries, Ghana has witnessed a significant increase in the cost of healthy diets, dietary inequality and the number of people who cannot afford a healthy diet (Global Hunger Report, 2024). Despite various government interventions, including Ghana's Planting for Food and Jobs initiative, food price fluctuations continue to threaten household food security and welfare, forcing many families to make drastic consumption decisions.

This study contributed to the growing body of literature by exploring how FPV shapes household consumption decisions in SSA, with Ghana as a case study. Findings from our exploratory fieldwork revealed that the rising cost of essential food groups, particularly vegetables, fruits, and proteins, has significantly constrained households' capacity to maintain a balanced and nutritious diet. The evidence demonstrated that Ghanaian households are increasingly prioritising cheaper, less nutritious food options due to financial constraints, resulting in reduced dietary diversity and quality. We also found that FPV compels many Ghanaian households to reduce meal frequency and portion sizes.

The study also established that gender responsibilities, power dynamics, household management skills, and social networks play a role in shaping household consumption decisions and coping strategies for FPV. Notably, male-headed households primarily adopt income-based strategies, focusing on generating additional earnings to cushion the impact of rising food costs. Many male household heads reported taking on extra jobs, engaging in small-scale farming, selling off assets or cutting down on non-food expenditures to maintain household food security. These gendered coping strategies reflect broader societal norms in SSA that shape the roles and responsibilities of men and women within households, highlighting the need for gender-sensitive policy interventions to address FPV.

Based on these insights and lessons from other SSA countries, we hereby make the following suggestions to enable stakeholders and policymakers alike to tackle FPV and its concomitant consumption burdens. First, we suggest that stakeholders, including the Ministry of Food and Agriculture (MoFA) and development partners, consider expanding strategic food reserves, strengthening agricultural value chains, and improving market access to mitigate the impact of FPV. Lessons from Ethiopia's National Food Reserve Agency suggest that timely market interventions can stabilise food prices during periods of socioeconomic and environmental shocks. A similar mechanism in Ghana could help moderate price surges, ensuring that staple foods remain accessible to vulnerable households. Additionally, promoting localised food production through community-supported agriculture programs could reduce reliance on imported foods and buffer households against global price shocks.

Second, per the evidence, female-headed households are disproportionately affected by FPV due to limited socioeconomic mobility, opportunities, and access to

resources. Expanding and restructuring Ghana's Livelihood Empowerment Against Poverty (LEAP), similar to the National Social Investment Programme of Nigeria and Kenya's 'Inua Jamii,' could provide immediate and sustainable relief to vulnerable households to cope with FPV. We suggest a conditional component of LEAP, where beneficiaries are required to enrol in vocational training to access transfers. This can go a long way to improve income status, promote entrepreneurship, and reduce vulnerability to socioeconomic shocks such as FPV. This can be enhanced by developing productive support schemes through targeted financial inclusion and access to agricultural and market resource schemes, which could enhance the income-generating capacities and resilience of households against FPV.

Promoting nutrition education and sustainable consumption practices can also be essential to mitigate the adverse effects of FPV on dietary diversity, particularly the reduction in the consumption of fruits, vegetables, and proteins. Stakeholders, including the Ministry of Health and NGOs, can benefit from investing in community-based nutrition education programs that equip households with knowledge of affordable and nutritious food options. Drawing from successful initiatives like Tanzania's Nutrition Education Program and Nigeria's Agricultural Transformation Agenda, Ghana's MoFA could encourage urban and peri-urban households to adopt cost-effective food production methods such as backyard gardening. Public awareness campaigns focused on practical strategies for maintaining dietary quality during economic strain can also cushion households to navigate periods of FPV while ensuring balanced and nutritious diets. This can be deepened by fostering more equitable intra-household decision-making through financial literacy programs, cooperative income models, and policy-driven incentives for joint financial management, which can enhance household food security outcomes.

Collaborative efforts between the Ghanaian Government, private sector, and non-governmental organisations can help improve agricultural productivity and food supply chains. Supporting infrastructure development, such as storage facilities and efficient transportation networks, could reduce post-harvest losses and stabilise food prices. Accordingly, the policymakers could encourage investment in climate-smart agriculture to enhance productivity and reduce vulnerability to environmental shocks, a critical factor contributing to FPV in Ghana and SSA at large.

Future research should adopt mixed methods approaches that combine qualitative insights with quantitative analysis, using larger, statistically representative samples from other SSA countries for broader generalisability. Further research can also assess the long-term nutritional and health impacts of FPV, particularly on vulnerable groups. Collaborative studies with government bodies and pilot evaluations of policy interventions, such as price stabilisation and social protection programs, would also provide actionable evidence for policymakers in Ghana and SSA.

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