

Transforming Food Systems For Better Family Nutrition Amidst Global Economic Downturn In Zuru Community of Kebbi State

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Abstract

The global economic downturn has significantly disrupted food systems, leading to nutritional challenges, especially among vulnerable households. This study investigated the effects of the economic crisis on household food consumption patterns and diet quality in Zuru Community, Kebbi State, Nigeria. The study was guided by 4 objectives. A descriptive survey design was employed, involving 250 randomly selected respondents. Data were collected using structured questionnaires and analyzed using SPSS version 25.0. Findings revealed that 80% of households reported a decline in diet quality due to rising food prices. Food consumption frequency showed a heavy dependence on grains, with limited intake of fruits, vegetables, proteins, and dairy indicating poor dietary diversity. Although 72% of respondents believe that local food production could improve nutrition and reduce costs, only a few engaged in practices such as home gardening (16%). The findings indicate that economic pressures are driving quantity-and-quality trade-offs in household diets. The study recommends scaling community-based production (home gardens, small livestock), Awareness campaigns by advertisement agencies and the media on the importance of dietary diversity and low-cost nutritious meal planning; and empowering farmers and small-scale growers through skills training, provision of incentives and funding can promote small-scale food production and local food markets. These actions would help restore dietary diversity and reduce the short-term and long-term health impacts of the current economic stressors.

Keywords: Family Nutrition, Local Food Production, Food Security, Climate Change, Dietary Diversity

Introduction

Food systems are intricate networks that encompass the entire journey of food; from cultivation and production to consumption and waste. Food systems interlink with agricultural practices, distribution infrastructure, labor dynamics, economic frameworks and nutritional outcomes. Derani (2023), revealed that modern food systems are deeply embedded in global trade structures and political economies, often prioritizing market efficiency over ecological sustainability and equity. The

systemic commodification of food has exacerbated global inequalities and environmental degradation, necessitating a reimagining of food systems as public goods that support food sovereignty and environmental justice (Derani, 2023). Family nutrition forms the backbone of public health and long-term societal well-being. Nutritionally secure households contribute to improved physical and cognitive development, especially in children and reduce long-term healthcare burdens. Recent work underscores the

role of culturally grounded, locally produced foods and family farming systems in ensuring food security during crises like the COVID-19 pandemic (Vaz *et al.*, 2024). Moreover, the erosion of traditional food knowledge often perpetuated through family and community networks has left individuals vulnerable to industrialized dietary patterns that contribute to malnutrition and chronic disease. Reclaiming local and decolonized food practices can reinvigorate healthier family nutrition systems (Estevez Magnasco *et al.*, 2024).

Climate change further amplifies nutritional vulnerabilities. A global assessment by Tigchelaar *et al.* (2024) shows that climate extremes threaten micronutrient availability especially for calcium, vitamin A, and B₁₂ posing critical risks for children and reproductive-age women who rely on diversified diets (Tigchelaar *et al.*, 2024).

The ongoing global economic downturn, (Global Economic Prospects, 2025), reflects a convergence of challenges such as stagnant growth (~2.7%), trade protectionism, climate shocks, and geopolitical instability. The outcome is a widening income disparity between high- and low-income countries, with many nations unlikely to achieve middle-income status by mid-century (World Bank, 2025). The economic climate has direct implications for food systems and family nutrition. Inflationary pressures raise food prices, disproportionately affecting low-income households. Global supply chains for essential foods, particularly cereals and micronutrient-rich commodities are strained, increasing the risk of food insecurity (Jain, 2024). These dynamics reduce dietary quality, pushing vulnerable families toward cheaper, calorie-dense but nutrient-poor diets.

Statement of the Problem

The global economic downturn has disrupted food systems, raised food prices and reduced household purchasing power, especially in low- and middle-income countries like Nigeria (World Bank, 2025; FAO *et al.*, 2023). Rural communities such as Zuru in Kebbi State face heightened vulnerability due to their dependence on smallholder agriculture and limited access to diverse, nutritious foods (Adenegan *et al.*, 2022). Rising food costs force many households to adopt coping strategies that compromise diet quality, while weak investment in local food systems further reduces resilience (Oni *et al.*, 2021; Olayemi, 2020). This underscores the urgent need to transform food systems in Zuru Community to enhance family nutrition and household resilience.

Objectives of the Study

The main objective of this study was to assess the impact of the global economic downturn on family nutrition and explore strategies for transforming food systems in Zuru Community, Kebbi State.

The specific objectives were to:

1. Determine the number of meals consumed per day by households in Zuru Community.
2. Identify the frequency of weekly food groups consumption by households in the study area.
3. Identify coping strategies adopted in response to high food prices in the study area.
4. Examine the perception of local food production for reducing costs and improving nutrition in the study area.

Methodology

Research Design

This study adopted a descriptive cross-sectional design, this allows the collection and analysis of data at a single point in time. The approach was chosen to assess the current status of household food consumption, coping strategies, and the impact of the global economic downturn on family nutrition.

Study Area

Zuru is a Local Government Area in Kebbi State, Nigeria. The Emirate comprises four local government areas, namely: Wasagu/Danko, Fakai, Sakaba and Zuru. It has an area of 653 km² (252 sq mi) and a population of 165,547 at the 2006 census (Wikipedia Contributors, 2025). Zuru community is a rapidly growing urban center with diverse socio-economic groups, making it an ideal location for assessing family food systems and nutrition.

Population of the Study

The target population comprised 250,000 adult respondents, predominantly household heads or caregivers responsible for food purchasing and meal preparation. These individuals were selected to provide reliable insights into household-level decisions and nutritional patterns.

Sample and Sampling Techniques

A total of **250 households** were selected to participate in the research. The study employed a **simple random sampling**

technique to select respondents. This method was chosen to give all households in Zuru Community an equal chance of being included in the study, thereby minimizing bias and ensuring representativeness.

Instrument for Data Collection

Data was collected using a structured questionnaire designed by the researcher. The questionnaire contained three sections as follows: Section A (Food consumption patterns), Section B (Effects of economic downturn on food choices) and Section C (Perceptions for food system transformation)

Method of Data Analysis

The collected data were coded and entered into Statistical Package for the Social Sciences (SPSS) version 25.0 for analysis. Descriptive statistics such as frequencies, percentages, and mean scores were used to summarize the data.

Results

Table 1 shows that majority of households (44.0%) reported consuming three meals per day, followed by 34.0% who eat two meals daily. However, 12.0% of respondents survive on just one meal per day, which may indicate food insecurity. Only 10.0% of respondents consume more than three meals, likely reflecting households with better economic stability. These figures suggest that meal frequency may be influenced by household income or economic conditions. Table 1: Number of Meals Consumed per Day by Households (n=250)

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Meals per Day	Frequency (n)	Percentage (%)
One	30	12.0%
Two	85	34.0%
Three	110	44.0%
More than three	25	10.0%
Total	250	100.0%

Table 2 indicates that grains (like rice, maize) are the most frequently consumed, with 72.0% of households consuming them daily, indicating they are staple foods and more affordable. Vegetables are also consumed regularly, with 40.0% consuming them daily and 34.0% 2–3 times a week. This reflects some level of dietary balance. Fruits, protein (meat/fish), and legumes are less frequently

consumed daily, suggesting economic barriers to access. Dairy products have the lowest daily consumption rate (16.0%), and 12.0% never consume them, which may affect calcium and protein intake. The relatively low daily intake of protein sources (20.0%) indicates that economic constraints are affecting access to quality proteins.

Table 2: Frequency of Weekly Food Group Consumption (n = 250)

Food Group	Daily (n/%)	2–3 times (n/%)	Weekly (n/%)	Rarely (n/%)	Never (n/%)
Fruits	60 (24.0%)	90 (36.0%)	55 (22.0%)	30 (12.0%)	15 (6.0%)
Vegetables	100 (40.0%)	85 (34.0%)	40 (16.0%)	20 (8.0%)	5 (2.0%)
Grains	180 (72.0%)	40 (16.0%)	20 (8.0%)	10 (4.0%)	0 (0.0%)
Protein (Meat/Fish)	50 (20.0%)	100 (40.0%)	60 (24.0%)	30 (12.0%)	10 (4.0%)
Dairy Products	40 (16.0%)	70 (28.0%)	60 (24.0%)	50 (20.0%)	30 (12.0%)
Legumes (Beans/Soy)	70 (28.0%)	100 (40.0%)	50 (20.0%)	20 (8.0%)	10 (4.0%)

Table 3 shows that the most common coping strategy was switching to cheaper alternatives (76%), followed by reducing meal sizes (68%). A considerable number of households also resorted to buying

food on credit (56%) and skipping meals (48%), indicating the depth of economic impact. Only a small fraction (16%) started home gardening, showing limited use of self-sufficiency strategies.

Table 3: Coping Strategies Adopted in Response to High Food Prices (Multiple responses allowed) (n = 250)

Coping Strategy	Frequency	Percentage (%)
Reduced meal size	170	68.0
Switched to cheaper alternatives	190	76.0
Skipped meals	120	48.0
Bought food on credit	140	56.0
Sought help from relatives/charity	80	32.0
Started a home garden	40	16.0
Others (food rationing)	20	8.0

Discussion

The findings on household meal frequency reveal important insights into food access and nutritional stability in Zuru Community. The results show that 44% of households consume three meals per day, while 34% reported eating two meals daily, and a significant 12% survive on only one meal per day. This suggests that although some households maintain

regular meal patterns, a substantial proportion are experiencing meal reduction as a coping mechanism. Households restricted to one or two meals daily are more likely to face nutrient deficiencies and increased vulnerability to malnutrition, particularly among children, pregnant women, and the elderly. These findings reflect patterns

observed in economically stressed communities, where rising food prices and declining purchasing power force reductions in daily meal frequency, leading to compromised dietary adequacy and long-term health implications.

The study further reveals that 76% of households have reduced their number of meals due to economic hardship. This indicates a widespread nutritional impact linked to inflation and declining income levels. The reduction in meal frequency demonstrates not only food insecurity but also weakened household resilience in meeting basic dietary needs. Skipping meals or cutting meal frequency is a recognized negative coping strategy often adopted during economic crises, which ultimately increases vulnerability to undernutrition and related health conditions. This aligns with global evidence suggesting that economic downturns push families toward compromises in dietary quantity and quality, particularly in low-income settings. The high rate of meal reduction in Zuru underscores the urgent need for targeted interventions, including social protection programs, community food support systems, and local food production initiatives to safeguard nutritional well-being.

A significant proportion (80%) of respondents affirmed that rising food prices in the last six months have adversely affected their household's diet quality. This aligns with the global pattern reported by FAO (2022), where economic volatility and inflation contributed to increased food insecurity in low- and middle-income countries.

Coping strategies adopted by households paint a bleak nutritional landscape. Most respondents reported switching to cheaper alternatives (76%) and reducing meal sizes (68%), with 48% skipping meals altogether. These patterns

reflect not only a reduction in food quantity but also a compromise in diet quality, corroborating findings by Friel *et al.* (2017), who observed that economic pressures often lead to diets high in energy but poor in micronutrients, exacerbating hidden hunger and malnutrition.

The consumption frequency of various food groups further illustrates these nutritional compromises. While grains (a staple) were consumed daily by 72% of respondents, only 30% and 25% consumed fruits and vegetables daily, respectively. The low daily intake of animal protein (22%), dairy (18%), and legumes (35%) highlight the inadequacy in dietary diversity, which is essential for optimal nutrition (WHO, 2020). These trends suggest that despite availability, economic access to nutrient-dense foods remains a barrier, consistent with the reports of the Global Nutrition Report (2021).

Importantly, 72% of respondents expressed the belief that local food production could help reduce costs and improve household nutrition. This is encouraging and supports the growing call for more localized, resilient food systems that shorten supply chains and empower communities (IPES-Food, 2020). However, the low uptake of home gardening (16%) despite economic pressures indicates that awareness and resource limitations may hinder practical action.

Conclusion and Recommendations

This study highlights that the global economic downturn has significantly impaired household nutrition in Zuru Community, Kebbi State, Nigeria. Most families reported reduced diet quality, fewer meals, and increased reliance on coping strategies such as switching to cheaper food and skipping meals. Food consumption patterns showed limited diversity and nutrient intake, with a

heavy reliance on grains and reduced intake of fruits, vegetables, and protein-rich foods.

While there is strong belief in the potential of local food production to mitigate these challenges, practical engagement remains limited. There is an urgent need for strategic interventions to enhance local food accessibility, promote nutrition education, and strengthen household resilience to economic shocks.

1. Government and development agencies should support home and community gardens by providing seeds, tools, and training, especially targeting urban and peri-urban households. Furthermore, government can provide subsidies on essential nutritious foods can help improve access for low-income households.
2. Awareness campaigns by advertisement agencies and the media on the importance of dietary diversity and low-cost nutritious meal planning.
3. Empowering farmers and small-scale growers through skills training, provision of incentives and funding can promote small-scale food production and local food markets.

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