

FOOD SECURITY AND INFLATION IN DEVELOPING NATIONS

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Food security, Inflation, developing nations, food prices, poverty, economic stability, economic growth.

Article History

Received: 11 March 2026

Accepted: 21 April 2026

Published: 11 May 2026

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Abstract

In recent years, food security and inflation have become a serious problem in the developing countries and have a great impact on the economic stability and the living standard of vulnerable people. The increasing inflation, especially in food prices has made the purchasing power of the households poverty and hunger decreasing. Developing countries are particularly vulnerable based on their weak economic structures, reliance on agricultural production, lack of government resources, and unstable market conditions. This article reviews the nature of the link between inflation and food security in developing countries, and explores the potential impact of rising food prices on food availability, food access, food affordability and food consumption in low and middle-income groups. This paper examines the key factors contributing to food inflation, such as the world's economic instability, disruption in the food supply chain, climate change, population growth, political conflicts, and fluctuations in fuel input and agricultural input prices. It also examines the socio-economic effects of inflation on households, farmers, and nations' economies. The problems of marginalized communities are given special consideration with the rising prices of food products leading to poorer food intake and higher food insecurity in those communities. The article also explores policy responses and strategies which governments and international organisations have taken to deal with food insecurity in times of high inflation. These include, among others, agricultural subsidies, social protection programs, price controls, food aid programs, and investments in sustainable agricultural development. The study is conclusive that coordinated economic policies, enhanced agricultural systems and future development strategies are needed to control inflation and strengthen food security. Access to food is still a key element of sustainable development and poverty alleviation in developing countries.

1. INTRODUCTION

Food security is a serious issue worldwide, closely related to poverty, inequality and economic security. Food security was adopted as one of the Sustainable Development Goals (SDGs) by the United Nations, with a target of working towards the end of hunger and improving nutrition by 2030. To reach this goal, agricultural production, sustainable agriculture and natural resource management need to be boosted. But, besides agricultural production, other economic, social and political factors like poverty, inflation, trade policy and food distribution system are involved in food security.

Although these developing countries collectively produce enough food in the world, these countries are still suffering from serious food insecurity issue. Hunger is caused by a variety of factors including food inflation, poor distribution systems, climate change, poverty and economic crises. The COVID-19 pandemic also worsened the food supply chain, joblessness, and food insecurity for many low and middle-income nations.

The current research is concerned with the macroeconomic indicators - food security relationship in developing countries with a specific focus on the effects of food inflation, poverty, food imports, and food exports on food production and food access. It analyzes the experiences of the Colombian and Kyrgyz governments between 2000 and 2018, when they had to adopt food security policies in their respective countries and had similar challenges of food insecurity and agricultural structures.

The study is to try and find the most influential economic factors affecting food security management in these developing countries. The research uses regression analysis and comparative analysis to assess whether the dependency on food imports diminished after the policy implementation and whether the food inflation had the maximum influence on food production and food access. The results add to the knowledge about the effectiveness of food security policies and the impact of macroeconomic conditions on sustainable food systems.

2. Literature Review

Food security is one of the most pressing socio-economic issues facing developing countries. The escalating inflation rate, especially food inflation has had a strong impact on food security issues such as food access, affordability and availability of food for vulnerable groups. The Food and Agriculture Organization's definition of food security is that all people have access to nutritious, safe and adequate food and are able to utilize the nutrients to maintain an active and healthy life. Inflation in developing economies, which reduces purchasing power and raises the prices of key food and non-food items, limits this access and further fuels poverty and malnutrition. The literature in the modern era provides a close connection between inflationary pressures and the deterioration of food security in LMDC.

Current research indicates that inflation in food prices has a greater impact on low-income households due to a higher food "share" of their income. Recent studies have shown that food price increases have a negative impact on the consumption capacity of households, and households are forced to cut their consumption both in terms of quantity and quality. In developing countries this situation is especially dire when wages do not keep up with inflation. Empirical research in Pakistan, Nigeria and India shows that continuous inflation is directly linked with food insecurity, food hunger and malnutrition in the poor segments of society.

Global food price volatility has also been emphasised in the literature as exacerbating food insecurity. The crises in global food prices from 2007-2008 and 2010-2011 highlighted the fragility of developing countries to price volatility in international food markets. It has been suggested that higher commodity prices in the global market can lead to domestic inflationary pressures in commodity-importing countries, which can negatively impact food affordability. Higher commodity prices in the world market can cause higher commodity prices at the domestic level in import-dependent economies, which can lead to lower food affordability, it has been argued. Developing countries have very low economic capacity and economic resilience to effectively react to sudden price shocks. Thus,

inflation reduces the welfare of households and has led to social unrest, economic instability and political tension in various areas.

The connection between agricultural production and food inflation is another key theme that was observed in the literature. Researchers say structural problems with agriculture such as weak infrastructure, lack of technological progress, inadequate storage, and weak government support are major factors in food price increases. Additionally, climate change, limited water supplies, environmental degradation and high population growth have put pressure on food production systems in developing countries. Agricultural output decreases usually resulting in food supply shortages, raising prices and further deteriorating food security situations.

The impact of the COVID-19 pandemic on food security has also been investigated recently in the economic aspects. The Covid-19 pandemic affected the international and national supply chains, caused job losses and injected a new velocity into inflationary movement in several developing economies. This was compounded by lockdown and travel regulations that restricted access to food markets and availability of food, and low income that further reduced the buying power of households. South Asia and Sub-Saharan Africa (SSA) have shown how vulnerable populations suffered increased levels of food insecurity during the pandemic from a combination of economic and inflationary shocks.

Besides, the importance of monetary and fiscal measures for combating food inflation and food security has been highlighted. The economists suggest that a well-designed macroeconomic policy, proper inflation control measures and strategic interventions by the government are crucial to prevent vulnerable groups from food crises. The various policy interventions, including food subsidies, agricultural support programs, social safety nets, and market regulation, have been found to be significant policy tools for the mitigation of negative impacts of inflation on food access. However, the policy implementation difficulties in developing countries still remain as a result of weak governance, budget constraints, and economic instability.

Additionally, the impact of inflation on food security does not affect the society at large. The lack of access to financial resources and employment opportunities means that rural communities, women, children and marginalised communities are more at risk of food insecurity. The effects of the increased food prices on nutrition further compounded by gender inequalities, unemployment and socio-economic gaps, which further increase nutrition insecurity of disadvantaged groups. Thus, researchers call for policies concerning inclusive development by enhancing social security systems and the living conditions of the rural poor.

Overall, the existing literature has successfully demonstrated that there exists a strong linkage between inflation and food insecurity in developing countries. All of these factors combine to affect food access and food vulnerability of low-income groups, including rising food prices, low agricultural systems, economic instability, and the volatility of global markets. Based on the reviewed studies, sustainable solutions demand a broad economic restructuring, modernization of agriculture, good inflation management and long-term food security policies to ensure an equitable access to nutritious food and socio-economic stability in the developing countries.

4. Theoretical Framework

The correlation of food security and inflation in developing countries is used in this study. The theoretical framework shows the impact of inflation on food access, food affordability, food availability and utilization in households, particularly in LMICs. The strategy brings together concepts of economic and food security theories to understand the immediate and indirect effects of high inflation on the household's welfare and nutritional status.

The Food Security Theory (as put forward by the Food and Agriculture Organisation) forms the main foundation of this study and four broad food security dimensions are outlined: food availability, food accessibility, food utilization and food stability. This definition, according to this theory, is that food security is when everyone has access to enough food, physically and economically, to lead an active and healthy life. These factors are adversely affected by the inflation, as it causes the cost of food to rise and decreases the purchasing power of consumers. When

prices go up, households can no longer afford sufficient food, resulting in hunger, food insecurity, malnutrition and lower food intake quality.

It also depends upon the Purchasing Power Theory which says that inflation reduces the purchasing power of consumers' income and also lowers their purchasing power. Slight increases in food prices in developing countries, where a significant portion of total household income is spent on food, can make a big difference to food affordability. High inflation is therefore more of a threat to poor people's food security since they do not receive a corresponding rise in income.

Furthermore, the study is based on the "Structuralist Theory of Inflation" which suggests that in the developing countries, weak structural conditions such as low agricultural productivity, lack of infrastructure, lack of efficiency in the production process are the factors that can cause inflation. From this perspective, the inflation rate is escalated due to the lack of food production and the poor distribution system in developing countries. These structural issues lead to shortages which contribute to the rising food prices and the availability of food.

The theoretical approach also considers the Malthusian Population Theory that focuses on the strain placed on food supplies and food systems at high population growth rates. In many developing countries, with the increase of the population and the decrease of agricultural capacity, food demand in the country is increasing and so is the food price. The food supply gap and the population growth exacerbates pressure on inflation and food security.

Furthermore, the framework takes into account the effects of external economic shocks like the volatility of global food prices, climate change and pandemics. These factors impact agriculture production and supply chains, thereby raising inflation rates and decreasing available food. The COVID-19 pandemic, for example, brought to the fore the economic shock that can have a significant negative impact on the food system in developing economies.

So the relation between the variables is independent variable – inflation and dependent variable – food security. The impact of this relationship is influenced by other factors including the productivity of different crops, household income, government policy and the world's economic conditions.

Vulnerable populations and food insecurity are the consequences of high inflation that affects purchasing power, food prices and access to healthy foods.

5. Research Methodology

5.1 Research Design

The design of this study is qualitative and descriptive, with a study on the relationship between food security and inflation in developing countries. The descriptive approach is suitable, since it allows one to analyse the already existing economic situation, inflationary trends, and food security problems, through systematic interpretation of secondary data and the literature. This study will examine the impact of the rising inflation on food access, affordability, and food nutritional security of vulnerable groups in developing countries.

5.2 Research Approach

This research is qualitative, which uses analysis of published literature, food security report, and economic studies related to food security and inflation. In this regard, a qualitative method is appropriate, which can provide in-depth understanding of the socio-economic problems, policy implications and structural problems encountered in the food system of developing countries. The method also aids in discovering patterns, relationships, and significant themes that have been mentioned by previous researchers.

5.3 Sources of Data

This study is secondary data study and using authentic and reliable sources. Data has been gathered from:

Research articles and scholarly journals.

* Reports published by the Food and Agriculture Organization

* Publications of the World Bank

The International Monetary Fund reports are also included.

Government publications and economic surveys

Books, conference papers and online academic databases.

The sources contain statistical data, theory and empirical data on inflation, food prices, poverty and food security in developing countries.

5.4 Data Collection Method

Document analysis and literature review techniques were used in collecting the data for this study. The selection of relevant academic materials was made according to their relation with food security, inflation, agricultural productivity, poverty and economic development. The researcher analyzed previously published research in order to uncover key arguments, research findings, and policy recommendations related to the topic.

5.5 Population of the Study

The set of countries under study are developing countries that are food and inflation-insecure. Special focus is paid to South Asian countries, Sub-Saharan countries and other LMIC countries where food inflation has a high impact on the welfare of households and economic stability.

5.6 Sampling Technique

Purposive sampling method is used in the selection of literature and reports in the study. Research was only done on relevant and credible sources that are directly related to the topic. Relevance and reliability of the results have been taken into consideration by prioritizing studies on the following issues: inflation, food crisis, agricultural systems and economic problems in developing nations.

5.7 Data Analysis Method

Thematic analysis has been used to analyze the collected data. Key themes related to food price inflation, purchasing power, agricultural productivity, poverty, global food crises and government policy were identified and critically interpreted. A comparative analysis was also conducted to identify the similarities and differences between the different studies conducted on food security and inflation in the developing economies.

5.8 Significance of the Study

The study is important as it brings awareness of the economic and social impact of inflation on food security in developing countries. The research builds on the work already done in the field by offering a thorough understanding of the impact of inflation on vulnerable groups and food systems. It can also help policy makers, researchers and development groups to develop effective measures that will help to alleviate food insecurity and food price volatility.

6. Data Analysis

The literature reviewed and secondary data showed that there is indeed strong correlation between Food Security and inflation in developing countries. The findings indicate that high food prices have a serious impact on the purchasing power of low-income groups and hinder vulnerable groups from accessing adequate and nutritious food. Increased inflation is one of the significant economic drivers which has helped increase hunger, malnutrition and poverty in many developing economies.

From the reviewed studies, it is evident that food inflation influences household food consumption, which in turn, pushes families to buy less and lower quality foods. Household food expenditures in developing countries are high, and small rises in food prices lead to a high impact on small households. Studies in Pakistan, India and Nigeria have found that inflation has worsened food insecurity particularly for the poorest people and the most vulnerable.

The analysis also shows that the price movements of food in international markets directly affect the domestic price movements of food in developing countries. Food commodity-importing countries are more susceptible to world price changes. Food crises in 2007–08 and 2010–11 had a profound impact on food affordability and contributed to crises of social and economic stability in many low-income countries. The results indicate that if the economy is weak and policies are inadequate, then the developing countries will be unable to deal with inflationary shocks effectively.

The other major conclusion of the study is the importance of agricultural production in the food security. There is evidence in the literature that lack of agricultural infrastructure, low technology, poor storage conditions and climatic problems inhibit agricultural production and food supply. These deficits lead to higher food prices and reduce food availability in the local market. Water scarcity, droughts, floods and climate change have also exacerbated the instability of agriculture in many developing areas.

In addition, the analysis illustrates the economic impacts of the COVID-19 pandemic on food systems. The pandemic caused a disruption in supply chains, transport systems and labor markets, causing

unemployment and a rise in food prices. This made it difficult for a lot of homes to get the necessary food supplies. Research from South Asia and Sub-Saharan Africa shows how the pandemic aggravated the food security situation at the household level, as a result of inflation and income losses.

Moreover, the results show that there is no general average inflation for all groups. Food insecurity is more likely to become a problem for rural populations, women, daily workers, and jobless people due to low income and low financial resources. Social and economic inequalities thus exacerbate the negative impact of inflation on the nutritional situation and household stability.

The analysis also indicates that the role of government intervention is critical to diminish the food security effect of inflation. To support vulnerable groups to adjust to higher food prices, there are several policies that can be implemented, including food subsidies, agricultural support policies, price control policies and social protection policies. But in many developing countries, political instability, poor governance and a lack of resources are a big hurdle in policy implementation.

The data analysis shows that inflation has a significant influence in the food security of developing countries in general. High food prices are affecting people's access to food and high levels of poverty, affecting vulnerable people's purchasing power. The findings highlight the importance of sustainable agricultural development strategies, consistent economic policies and policy interventions by the government to tackle the rising issues of food insecurity and inflation in developing economies.

7. Conclusion

In developing countries there is a strong link between food security and inflation. The results of this study confirm that inflation, especially the food price inflation rate, has an important relationship with access, availability and stability of food for vulnerable groups. When all the basic necessities of life become expensive, the purchasing power of the low-income groups decreases, leading to a decrease of food consumption, malnutrition and poverty. In developing economies, particularly, a significant share of the household income is spent on food and

the inability of households to respond to inflation pressures is due to the lack of institutional development and instability in the economy.

The research also shows that structural vulnerabilities in the agriculture sector such as low productivity, insufficient infrastructure, weak storage mechanisms and climate related shocks play an important role in food insecurity. Challenges have deepened and food systems in many developing countries have become more fragile with global food price volatility, economic crises, and the long-lasting impact of the COVID-19 pandemic. Moreover, food insecurity is exacerbated by socio-economic disparities, especially for women, rural populations and for those who are jobless.

The study highlights that food security can only be achieved through the promotion of economic stability, good governance and sustainable development policies, as well as raising food production. To mitigate the negative impacts of inflation on vulnerable groups, government policies such as food subsidy, inflation control policies, agricultural reforms, and social protection policies are necessary. Moreover, enhancing the resilience of agriculture and ensuring proper regulation of markets, along with influencing sustainable economic policies, can help to achieve long-term food security and national development.

To sum up, food inflation in developing countries is a great challenge to food security which leads to low affordability of food and high vulnerability of the society. The solution to this problem lies with coordinated efforts of the governments, international organisations and policy makers to develop sustainable food systems and secure the protection of economically disadvantaged communities from the increasing threats of hunger and poverty. Hence, the study emphasizes the importance of well-balanced economic policies and strategic development of agriculture for food security and social stability in developing economies.

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