

Food, it's Essence and Economic Impacts: A Thematic View.

Abstract

The number of food insecure people may not have changed much despite the global campaigns especially in Africa where for centuries people dined and lived on natural, wild and organic food sources which supported their health and vitality although adjudged crude and inadequate. The West may have attained significant mile stones in food security for a price. Modern(western) food condiments and feeding patterns which the elites in Africa are subscribing to seem to be programmed to impoverish human health and in the process enriching the pharmaceutical industries. The emergence and adoption of western food culture and feeding regimen has heralded the emergence of diseases and sicknesses hitherto little known to most Africans. The basic essence of food is to ensure body growth, repair of and maintenance of body tissues and regulation of vital processes. Any food form that ensures you visit a doctor is poisoning no matter the taste and packaging hence the need for not only food security but also adequacy. Food security is also an important component of economic development and germane to global economic agenda. Food adequacy supports economic and Sustainable Development Goals (SDGs) of any government by enhancing the citizens' health thus broadening productivity and economic opportunities. This is important because food presently is a big industry globally and can earn big profits and make a difference in the economy because it can impact economic development in many different forms. It can affect health and education and because it plays important roles in health and education, it can plausibly impact economic growth and development especially human capital formation and is a necessary tool to spur economic growth.

Keywords: Food, Essence, Economy

Introduction

Food insecurity is not just a function of inadequacy in quantity alone; it also comprises deficiencies in quality. The population of food insecure people remains high at over 900 million with limited prospect for any significant reduction. From a World Food Program estimate, hunger affects about one in seven people globally. Arguably, the highest percentage of these hunger stricken and food insecure people live in the rural areas where food is

produced, they constitute over 60% of undernourished people globally (Ojimadu and Ogu, 2022). Food as a basic necessity of life should contain nutrients that are essential for body growth, repair and maintenance of tissues and, the regulation of vital processes (National Geographic Society, 2023). However, it is quite glaring that modern food and feeding procedures and patterns are programmed towards impoverishing our health and enriching the pharmaceutical industries.

People are getting rich while marketing death (most modern processed foods have little nutritional values, wrecking our health). What is the wisdom producing and marketing processed foods that are loaded with salt when salt as a condiment has been indicted in high blood pressure, a common modern disease? We are ignorantly unaware of the amount of salt we consume daily and incidentally, most salt are found in processed foods such as ready meals; processed meats or from foods frequently consumed in large amounts such as bread. Additional salt is consumed from foods during cooking in stock cubes, soy sauce and fish sauce or from table salt. Food manufacturers should reform their recipes aimed at reducing the sodium content of their products (WHO, 2023).

Why preserve foods with ingredients that cause cancer, organ failure, body system malfunctioning, etc? Why garnish snacks and take-aways with tasty high cholesterol laden animal fats and trans-fats that clog the arteries, give you angina and other forms of coronary heart diseases and untimely death? Unhealthy beverages are on daily basis enticingly advertised, drinks that are loaded with refined sugars and nutrient deficient sweeteners beautify our grocery stores and afterwards, we are directed to see the doctor. Even WHO (2020) instructs to avoid unhealthy weight gain, total fat not to exceed 30% of total energy intake, intake of saturated fats to be less than 10% of total energy intake, trans-fats less than 1%; aiming at a shift in fat consumption and saturated fats and trans-fats to unsaturated fats and towards eliminating industrially-produced trans-fats. These instructions are never heeded to. Outside the toll on our health, the economic loss could be immense because of expenses on health issues and losses in man-hours. The African society frowns at suicide (those who die by suicide are thrown into the evil forest or buried at the public cemetery; never buried at home because it is a taboo) however; many of us are ignorantly committing suicide on daily basis by adopting and adapting to western diets. From what I have come to understand, the traditional African foods of nuts, fruits, vegetables and unrefined unprocessed carbs (some may call it crude diet) are life sustaining and health giving; an ideal diet.

Ideally, a healthy diet should provide good nutrition and prevent noncommunicable diseases (NCDs). Unhealthy diet which is becoming the norm is a global risk to health and the economy. Calorie intake should be proportionate to energy expenditure to avoid excess weight gain. According to Marengo (2023), a healthy diet and calorie intake have benefits, such as strong bones, healthy heart, and boosting the mood. A healthy diet should be nutrient-dense and healthy eating must replace or reduce contemporary trans-fats, added salt and sugar loaded foods with better nutrient options. The author believes that heart disease is a leading cause of adult death in the United States. The American Heart Association (AHA) has reported that about half of U.S. adults live with at least a form of cardiovascular disease and, also, high blood pressure is a growing concern. Noting that it is possible to prevent up to 80% of heart diseases and stroke with changes in the food menus and increasing physical activity.

Physical activity and nutrient dense foods alone may not be enough, a high-fibre food is also important in keeping the heart healthy and the American Heart Association advocates rich dietary fibre foods to help improve blood cholesterol and lower the risk of heart diseases and type 2 diabetes. Medicine for a long time now recognizes the relationship between trans-fats and heart-related diseases. Limiting their intake along minimal salt consumption can improve heart health. However, these are prized condiments for food manufacturers. Any individual aiming at maintaining a good health must avoid these unhealthy foods (Marengo, 2023). There is now a heightened consumption of foods that are high in energy, free sugars, fats and salt/sodium instead of enough fruit, vegetables and dietary fibre as in whole grains and other unprocessed foods. This change in food pattern also comes with unpleasant health challenges and negative economic consequences

The essence of food

This clause radiates a thought provoking deliberation. The relevance of food to life is equivalent to the need for oxygen for living. Both are necessary if we must continue to live. Food is not just an essential component for survival but, also, a factor for a healthy body.

Science intimates that food provides the basic nutrients the body needs. However, the importance of food as a sole provider of the required nutrients in our body is gradually fading. Varieties of food have slowly widened and now have many branches of tastes and existence. Gradually, it is becoming a primary source of entertainment, consumed for both basic nutritional requirements and pleasure to our mind and soul (Nag, 2023). Since there are varieties of food, everyone has his or her preferences. No matter what a person consumes, the food should provide the nutrition the body requires to function optimally and remain healthy. The living cells in the body are dependent on the fats, nutrients, and calories gotten from the food we consume (IMPOFF, 2023). A healthy food should protect against malnutrition as well as noncommunicable diseases (NCDs). Unhealthy foods are some of the leading global risks to health. Foods that contain antioxidants reduce the risk of cancer by protecting the cells from damage. Many phytochemicals found in fruits, vegetables, nuts, and legumes are antioxidants. These include beta carotene, lycopene, and vitamins A, C, and E.

Some researchers have intimated there are evidences to suggest a close relationship between diet and mood. Foods of high glycemic index can induce depression especially in the obese. Foods with high glycemic index include some refined carbohydrates as found in soft drinks, cakes, white bread, and biscuits. On the other hand, vegetables, fruits and whole grains have a lower glycemic load (Marengo, 2023). Contemporary studies suggest that diet can affect immune activation, blood glucose levels and gut microbiome, which can also impact the mood. So, foods can affect mental health. Studies also suggest a link between healthful diets like the Mediterranean diet and mental health. These are contrary to diets with high fat, red meat or other processed products. The colon houses naturally occurring bacteria that facilitates metabolism and digestion. Some strains also produce vitamins K and B that benefit the colon. In addition they also help to fight other harmful bacteria and viruses. It has been suggested a high fibre diet may reduce and fight inflammation in the gut. These types of foods provide prebiotics and probiotics that aid the good bacteria thrive in the colon (Marengo, 2023). In addition, a good diet can reduce excess weight gain. A moderate weight can mitigate risks of chronic health issues. Healthful foods like vegetables, fruits, beans etc have lower calories than most processed ones. Keeping to a healthy diet may help a person keep to their daily limit and avoid concerns about their calorie intake. According to Marengo (2023), researchers in 2018 found that keeping to a diet rich in fibre and lean proteins may result in weight loss without the rigors of monitoring calorie intake. In a

nutshell, let us take a look on the effects of food on and in the body of a child and an adult as provided by the Centre for Disease control (2021).

**Benefits of Healthy Eating
for Adults**

- May help you **live longer**
- Keeps **skin, teeth, and eyes** healthy
- Supports **muscles**
- Boosts **immunity**
- Strengthens **bones**
- Lowers risk of heart disease, type 2 diabetes, and some cancers
- Supports **healthy pregnancies and breastfeeding**
- Helps the **digestive system** function
- Helps achieve and maintain a **healthy weight**

TO LEARN MORE VISIT
cdc.gov/healthyweight/healthy_eating

CDC

April 2021

Fig 1. Benefits Of Healthy Eating for Adults

Source: Centre for Disease Control and Prevention (2021)

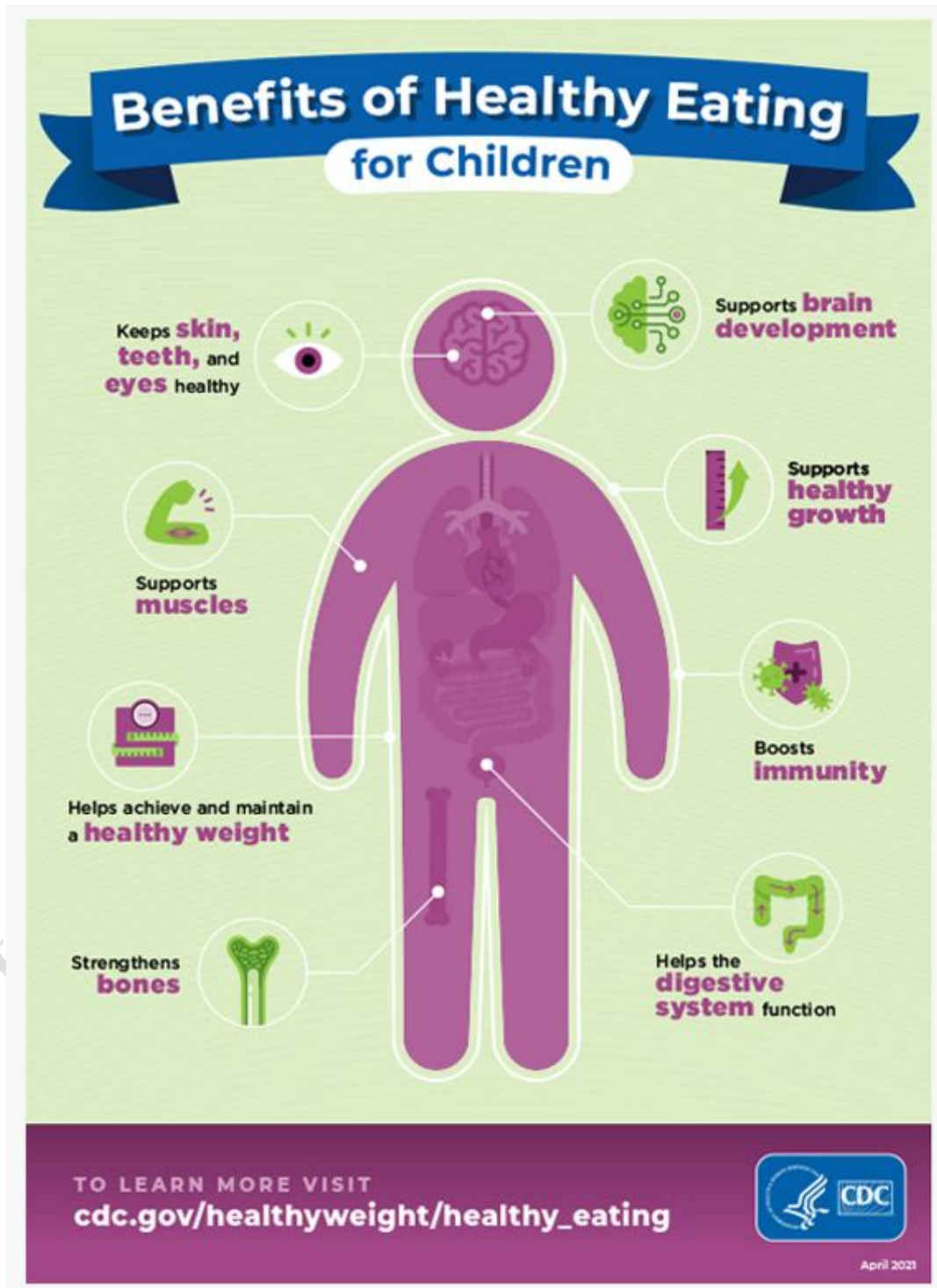


Fig 2. Benefits Of Healthy Eating for Children

Source: Centre for Disease Control and Prevention (2021)

Increase in processed foods, growing urbanization and changing lifestyles have resulted in changes in dietary patterns. There is an increasing preference for foods high in energy such as fats, free sugars and salt/sodium and a diminished intake of fruits, vegetables and dietary fibre which are in abundance in African traditional foods and grains. Some may suggest that instead of emphasizing manufacturers change in their condiments, why not check nutrition labels to see the amount of sodium in a product before purchase or consumption; do we also have the illiterate at heart who can neither read nor write as in Africa whose primary interest is the taste? When food can no longer give life and sustain health it loses its essence. It then becomes an instrument of death. Are we slowly pleasuring ourselves to avoidable death and painful existential experiences through what we ingest?

Food and the economy

For years, food security has been an important component of economic development. In contemporary times, food security is visibly germane to global development agenda and this agenda is bedecked with food price spikes in contemporary times. Presently, the assessment of the effects of food price fluctuations on world food security and poverty may be confusing. In spite of the confusion, the effect of the price fluctuations on world poverty and food security is purely a predicted theory (Verpoorten et al., 2013). Food can support economic development and Sustainable Development Goals (SDGs) of any government by facilitating the citizens' health and broadening economic opportunities. Therefore outlining a model of food safety life cycle which mitigates the gap between need and capacity is necessary as economies develop. The problems and handling of food safety economies come from market failures that are linked to providing accessible and safer food. There is therefore the need to work with food value chain actors to attain this aim. Understanding the dynamics of food accessibility and safety in economic development may help policy makers examine costs and management capacity (Jaffee et al, 2018).

Everything we do today has an impact on the economy. Food presently is a big industry globally and can earn big profits and make a difference in the economy. Food can impact

economic development in many different ways. It can affect health and education. Because food plays important roles in health and education, it can plausibly impact economic growth and development especially human capital formation and, human capital is a necessary tool to spur economic growth (Swinnen et. al, 2016). Food security does not only mean feeding families, it also involves supporting economic development. The positive impacts of food security will comprise attaining the SDGs such as increases in trade opportunities, job creation, poverty reduction, improved global security, and improved health (Bohn, 2022). As we face food crisis globally in modern history, there is the threat of a global recession also looming because all aspects of the economy linked to food production and security will be impacted and there are several of them. This reminds us that current food accessibility issues is a threat to not just food security, but also world economies as well. This is evident in the raising of interest rates by central banks around the world in response to inflation.

Food security outside impacting economic development can also impact economic growth. When people are food secure, money is saved. Loss in Productivity due to malnutrition, undernutrition and diminished cognitive development costs global economy about \$3 trillion per year. This is the economic cost of food insecurity or malnutrition (Bohn, 2022). According to Bohn (2022), the 2022 Global Report on Food Crises showed high food prices and a general loss of income-generating opportunities because of the economic impacts of COVID-19 to a large extent in 2020 and 2021. There was a drop in agricultural activities globally. This led to visible food insecurity across the world especially in developing countries. The ensuing financial crises, coupled with the effects of COVID-19, exacerbated cases of malnutrition in many developing countries especially. The author observed that because of a steady declining for a decade in food production, hunger is now on the rise and affects nearly one in ten people globally and so also is the economic impact.

In Nigeria, there has been a steep rise in food prices as never seen before because of religious and ethnic induced conflicts that has affected farming and food production with the attendant crash in standard of living and heightened poverty. The price of bread a common staple is evidently beyond the reach of the common man in the country because of the conflict in Ukraine that has affected the supply of wheat. The disruption in the supply chain due in part to Russia's war has raised the prices of confectionaries at home making it much difficult for import-dependent countries like Nigeria to purchase food for their citizens. Inflation is rising, and purchasing power decreasing. Think of the multiplier effects of these

on the economy. Ojimadu and Ogu (2019) noted that the latest FAO figures showed that 22 countries of which 16 are in Africa have undernourishment prevalence rate of 35% or more. They opined that hunger and malnutrition retard economic growth and development. Little wonder developed and some developing countries make enhanced food production capacity a priority. About one billion people globally are undernourished especially in Sub-Saharan Africa. A closer look at the economy of these nations with significant undernourishment shows they are facing economic challenges.

Swietlik (2018) evaluation of economic growth and food security in purposively selected regions of the world about a decade ago using secondary data from GUS (Central Statistical Office), the United Nations, the World Bank, the International Monetary Fund and Global Food Security Index reports, suggests significant regional differences between GDP and food security. The study reveals a link between GDP and food security showing the highest improvements in food security were in countries with higher rise in GDP per capita. The correlation in these indicators points to improvement in food security enhances growth in the economy and real incomes, especially in poorer countries (Ojimadu and Ogu, 2022). Monetary handouts from the west to most African countries in terms of aid may not be a permanent solution to the myriads of problems bedeviling this region, they should be taught how to feed themselves in a competitive world economy and most of their problems will vanish because, the various governments can then plan with focus on infrastructure development and education.

Table 1: Parsimonious Short Run Relationship Result between food security and economic development in Nigeria

ARDL Model	Coefficient	Std. Error	t-Statistic	Prob.
Variables				
D(FPRI)	0.004965	0.045704	0.108630	0.9143
D(FIMB)	-0.326263	1.077988	-0.302660	0.7645
D(AGDP)	0.085547	0.026134	3.273412	0.0029
CointEq(-1)	-0.207174	0.114221	-1.813800	0.0808

SOURCE: Ojimadu and Ogu(2022)

Table 2: Summary of Long Run coefficient of food security as it affects economic development in Nigeria

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FPRI	0.023964	0.221889	0.108002	0.9148
FIMB	-1.574824	5.670973	-0.277699	0.7834
AGDP	0.130087	0.038115	3.413029	0.0020
C	891.256364	245.601384	3.628874	0.0012

Source: Ojimadu and Ogu(2022)

There is a negative coefficient of Food importation bill (FIMB), -1.5748. This suggests an inverse relationship between economic development and food importation. As Food importation increases by a single unit, per capita income decreases by -1.5748 units. Agriculture contribution to total GDP (AGDP) is positive and suggests that for a unit rise in agriculture, gross domestic production, per capita income increases by 0.13009 units. The probability-test shows a significant contribution of agriculture to total GDP shares and a significant relationship with economic development in Nigeria (Ojimadu and Ogu, 2022).

NOTE Data Presentation

Food production index (FPRI) in (rate), food import bill (FIMB) in (rate), agriculture contribution to total gross domestic product (AGDP) in (N'billion), *Auto Regressive Distributed Lag (ARDL)* (Ojimadu and Ogu, 2022).

Table 3: Food Security and Economic Growth

GDP Per capita	Model I	Model II	Model III	Model IV
Log GDP Per Capita Lag	0.7968 (7.28)***	0.7103 12.13)***	0.6577 (33.78)***	0.6429 (29.06)***
Log Dietary Energy Supply	2.8817 (2.45)***	3.6393 (7.12)***	3.5344 (25.86)***	3.769 (30.60)***
Log Life Expectancy at Birth	1.2074 (1.48*)	0.5976 (-0.72)	0.9344 (4.39)***	1.1408 (4.45)***
Log Total Employment	-0.0877 (-1.40)	-0.1595 (-4.12)***	-0.0975 (-12.06)***	-0.0758 (-9.53)***
Log Poverty Headcount	-0.1757 (-2.88)***	0.0147 (-1.04)	-0.0519 (-15.74)***	-0.0431 (-9.31)***
Population Growth	0.204 (2.38)***	0.0945 (1.94)**	0.1031 (7.22)***	0.1425 (4.68)***
Log Government Expenditure	-0.79 (-3.14)***	-0.8311 (-8.45)***	0.5863 (-11.92)***	-0.5557 (-16.34)***

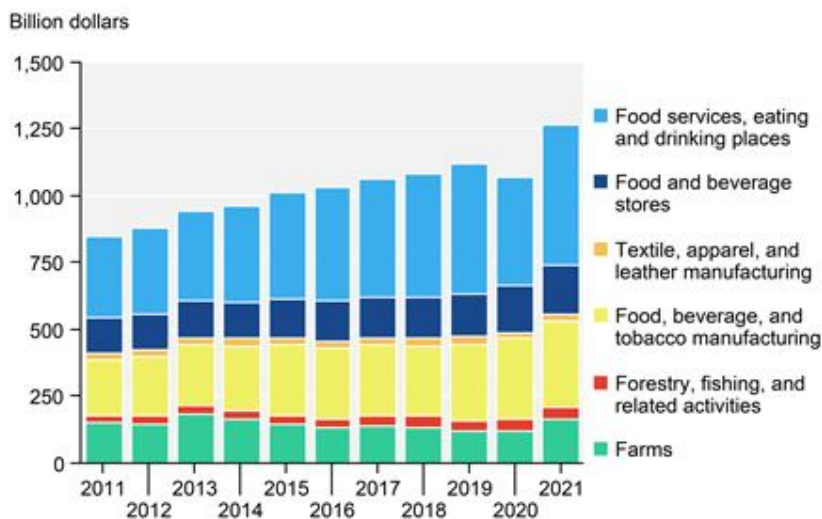
Source: (Manap and Ismail,2019)

Manap and Ismail (2019) in a different study showed that life expectancy positively correlates with food security and also has a positive impact on economic growth at 1 per cent level and will increase economic growth by 0.0687 units. According to them, this study agrees with the work of Kunze (2013) who indicated that increase in life expectancy can enhance households' savings rate, physical capital accumulation, and economic growth. Furthermore, an increase in life expectancy will imply older workforce that has better experience and education thus facilitating economic growth (Bloom et al. 2004).

Manap and Ismail's (2019) study shows that reduction in poverty and better food security was significant at the 10 per cent level pointing to positive economic growth with a coefficient of 0.0001. They have also shown that good nutrition enhances better education among children which in the long run creates better human capital, increase in household income, reduces poverty rate and directly enhances economic growth. The duo also noted that increases in total employment with food security increases economic growth. Their study showed a coefficient of 0.0001 and significant at ten percent level. This had a positive impact on economic growth. Their finding agrees with the report of Braun (1995) which suggests that employment and food security are important in sustaining economic growth. Efficiency in employment can enhance household income increasing their ability to access more food.

In the USA, the agriculture sector's impacts connects the farm business to a range of farm linked industries. It contributed about 5.4 percent to U.S. gross domestic product and 10.5 percent of U.S. employment and American households expend about 12% of their budget on food on the average (USDA, 2023). Think of the multiplier effect on the American economy.

Value added to U.S. GDP by agriculture and related industries, 2011-21



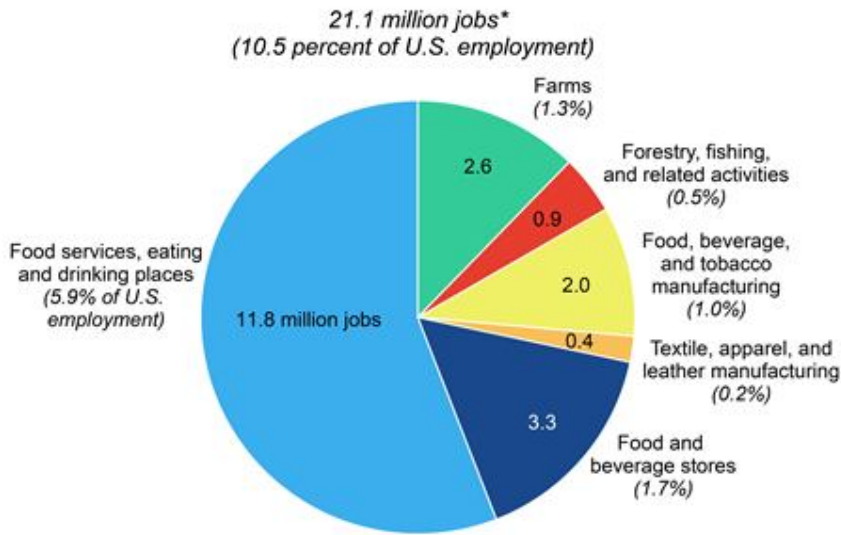
Note: GDP = Gross domestic product.
 Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of Economic Analysis, Value Added by Industry, as of December 22, 2022.

Fig 3. Value added to U.S GDP by agriculture and related industries, 2011-21

Source: USDA, 2023

Agriculture and its related industries employment rating in the U.S.

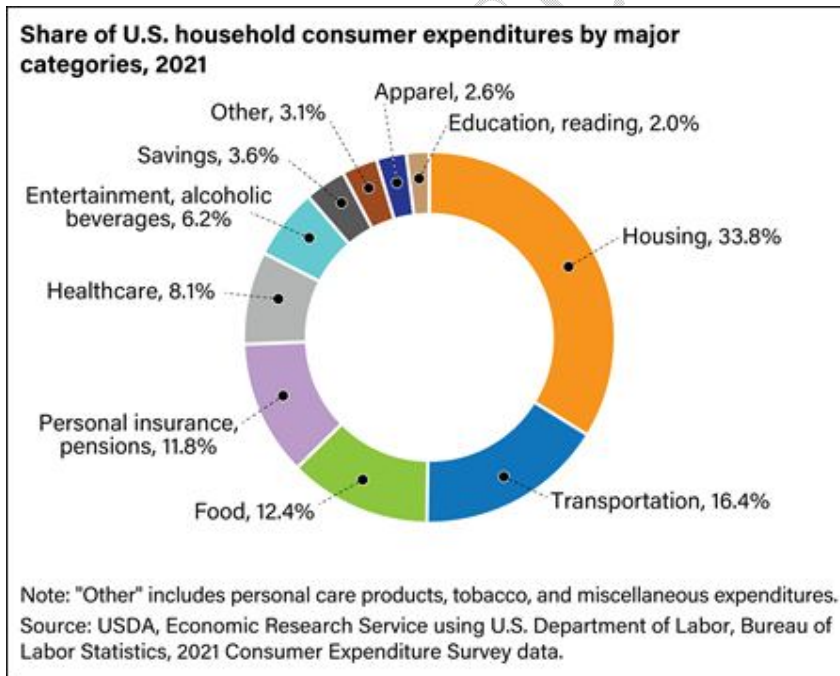
Employment in agriculture, food, and related industries, 2021



*Full- and part-time jobs. Categories may not sum to total because of rounding.
 Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of Economic Analysis (SAEMP25N), data as of September 30, 2022.

Fig 4. Employment in agriculture, food and related industries, 2021

SOURCE: USDA, 2023



Note: "Other" includes personal care products, tobacco, and miscellaneous expenditures.
 Source: USDA, Economic Research Service using U.S. Department of Labor, Bureau of Labor Statistics, 2021 Consumer Expenditure Survey data.

Fig 5. Share of U.S household consumer expenditures by major categories, 2021

Source: USDA, 2023

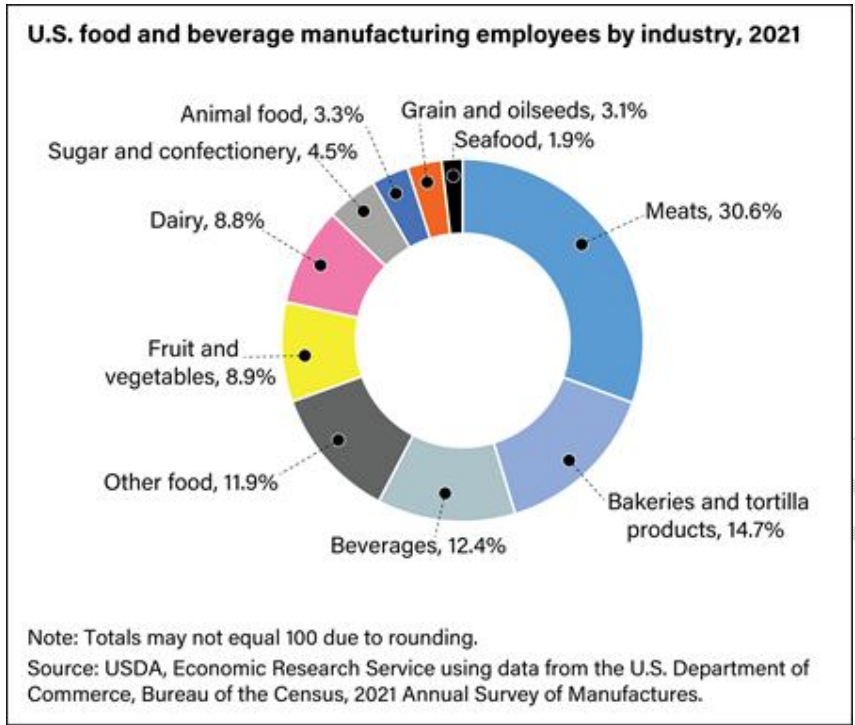
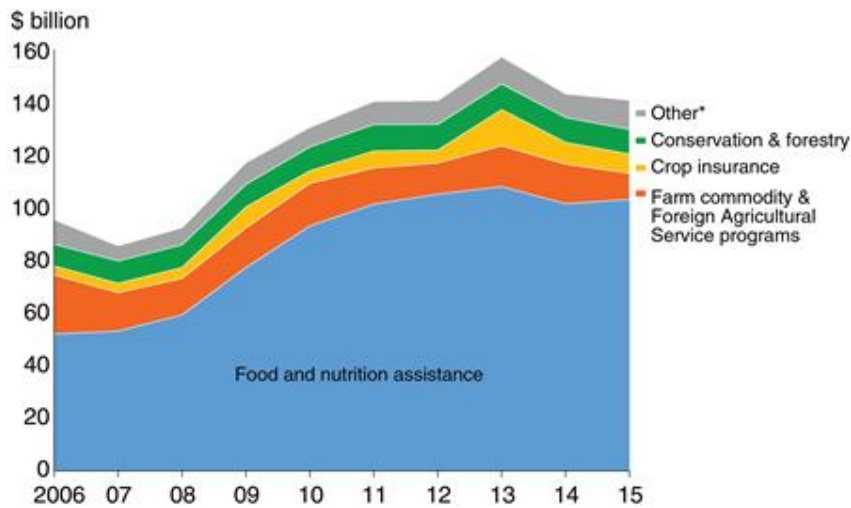


Fig 6. U.S food and beverage manufacturing employees by industry, 2021

Source: USDA, 2023

USDA budget outlays, fiscal years 2006-15



*Includes rural development, food safety, marketing and regulatory programs, research, and departmental activities. Note: Nominal dollars.
Source: USDA, Economic Research Service using data from FY2008-FY2016 USDA Budget Summary and Annual Performance Plan.

Fig 7. USDA budget outlays, fiscal years 2006-15

Source: USDA, 2023

Conclusion

The back bone and foundation of every economy is the food sector. Self-sufficiency in food production will conserve foreign exchange expenditure, enabling a country to determine production needs and levels in other sectors of the economy based on patterns in international trade. Food security impacts economic growth and development positively through poverty reduction, employment opportunities and life expectancy. Therefore, sustainable economic growth depends on food security to a significant extent. High Reliance on food import causes food security problems and may expose a country to international political manipulations limiting human capital development, labour productivity, life expectancy and economic growth.

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