

ASPECTS REGARDING THE STATE OF GLOBAL FOOD SECURITY

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Abstract :Food security has improved over the last five years globally, but food insecurity still persists. The Food and Agriculture Organization of the United Nations (FAO) estimates that the number of undernourished people has fallen by 176 million over the past ten years. But about 800 million people face food shortages, food insecurity still remaining one of the major global challenges for the future. The Global Food Security Index (GFSI) provides a common picture to understand the causes of food insecurity globally. By creating a common framework to assess a country's food security, GFSI has created a unique national food security measurement tool addressing accessibility, availability and use issues in 113 countries around the world. Since its inception, GFSI has become a policy of government verification and a country instrument for investment.

Keywords: food security, development, quality of food, disparities, Global Food Security Index (GFSI)

Introduction

The Global Food Security Index (GFSI) considers the core issues of affordability, availability, quality and safety across a set of 113 countries. The index is a dynamic quantitative and qualitative benchmarking model, constructed from 28 unique indicators, that measures these drivers of food security across both developing and developed countries. Food security is defined as the state in which people at all times have physical, social, and economic access to sufficient and nutritious food that meets their dietary needs for a healthy and active life, based on the definition established at the 1996 World Food Summit. The overall goal of the study is to assess countries that are most vulnerable to food insecurity through exploring the categories of food **Affordability, Availability, and Quality and Safety**. Food prices in many European countries have risen faster than incomes since the financial crisis, opening an affordability gap that has pushed many families to the edge. Well over 20 million households in the EU say they are unable to afford a high-quality meal – defined as one with meat, fish, chicken or a vegetarian equivalent – every other day. That's over 10% of the entire population.

Material and method

Methodology used to the development of work in order to obtain conclusions which reflects the realities in the territory, it was used an optimal mix of analysis methods and techniques, such as:

- methods of collecting data / information;
- quantitative analysis methods;
- qualitative analysis tools.

We have analyzed the Global Food Security Index (GFSI) that considers the core issues of affordability, availability, quality and safety across a set of 113 countries.

Results

The year 2016 saw important signs of resolve and commitments to sustainable development and food security. Yet the year also witnessed growing uncertainties linked to stagnant growth in the global economy, growing income inequalities everywhere, worsening refugee crises, increased polarization and populism among major donor countries, and rapid changes in the political landscape.

These uncertainties and persistent challenges will prove to be a major test of whether the momentum created will propel the new sustainable development agenda forward and whether action will be taken to improve the lives of millions of people who continue to lack the most basic necessities—namely, food, shelter, and security.

More countries, between 2015 and 2016 have experienced declines in their scores for national nutritional standards, than improvements. National nutritional standards, including national nutrition plans, national dietary guidelines and national nutritional monitoring are critical in ensuring that both government and the private sector direct their focus towards improving food quality, safety and nutrition. Thirty-six countries in the GFSI still do not have national dietary guidelines that encourage populations to adopt a balanced, nutritious diet. Additionally, a number of countries as Bahrain, Burkina Faso, Malawi, Niger and the UAE had national nutrition plans or strategies that expired in 2015.

The capacity to afford good-quality food without undue stress is a crucial aspect of food security.

The *Affordability* category explores the capacity of a country's people to pay for food, and the costs that they may face both when the food supply is stable and at times of food-related shocks.

The GFSI looks at affordability through two lenses: first, whether people in a country have sufficient means to buy food, and second, the quality of the public structures that exist to respond to shocks to food security.

Affordability is measured across six indicators:

- Food consumption as a share of household expenditure
- Proportion of the population under the global poverty line (% of population with income under US\$3.10/day at 2011 purchasing power parity, or PPP, exchange rates)
- GDP per head at PPP exchange rates
- Agricultural import tariffs
- Presence of food safety-net programmes
- Access to financing for farmers

The top performer in the *Affordability* category is Qatar, which, with GDP per head of US\$134,073 (in PPP terms), is also the richest of the 113 countries covered by the GFSI. There are three more countries in the top ten of the *Affordability* category with similar economic profiles to Qatar: Singapore (second), the UAE (third) and Kuwait (sixth). All of these are high-income countries with small populations and well-funded public sectors—all factors that directly benefit food affordability. Leaving aside this group of city states and small resource-rich countries, the *Affordability* rankings are led by rich developed countries with large agricultural sectors, strong food safety nets (such as in-kind food transfers, conditional cash transfers and school food programmes) and well-developed agricultural financial sectors: the US ranks third, followed by Australia (fifth), Ireland (seventh), Austria (eighth) and Germany (ninth).

In more than two-thirds of the countries covered by the GFSI in 2016, affordability has declined

Some 76 of the 113 countries have experienced a decline in their citizens' ability to afford food and respond to price shocks and in governmental capacity to support consumers with programmes and policies when shocks occur. Food affordability peaked in 2014-15.

The fall in affordability scores in 2016 in the vast majority of countries has occurred despite falling global inflation and oil prices and a record harvest in 2015. While rising incomes have tempered the effects of falling food affordability, very few countries have made progress on other indicators.

The *Affordability* score is largely driven by income, the extent of poverty and the share of income that households spend on food (together, these components account for nearly two-thirds of the weight in the Affordability indicator). In the short term, public policy is relatively powerless in changing these drivers.

The impact of government policy often shows results only over long periods. Countries seeking immediate results in terms of improving food affordability should focus their efforts on increasing public, multilateral and other funding for food safety-net programmes and on ways of improving farmers' access to finance.

The GFSI also includes an indicator that adds perspective on the cost of food in each country. The agricultural import tariff is measured as the average applied most favoured nation (MFN) rate, on all agricultural imports. Higher tariff rates can hurt food security by raising the price of both domestically sourced and imported food. Trade policy affects affordability of food, but its direction (liberalisation or protectionism) is not a function of economic development. For example, Egypt applies a tariff rate of 60% while Norway and South Korea, both high-income countries, apply rates of over 50%.

The scores for tariffs on agricultural imports declined in 105 of 113 countries analyzed. Agricultural tariffs fell and boosted short-run food affordability in only seven countries and Egypt's agricultural import tariff score remained unchanged. The weakest performers in this category represent a variety of regions and income levels: Egypt (with tariffs of 60.6%), South Korea (52.7%) and Norway (51.2%) have the highest agricultural tariff rates. By contrast, Australia (1.2%), New Zealand (1.4%) and Singapore (1.1%) have the lowest agricultural tariff rates.

The 2016's GFSI shows that average global food affordability peaked in 2015. In 2016 it has improved in only Central & South America (+0.3 points), Asia & Pacific (+0.2) and Europe (+0.1). The average Affordability score has fallen across all income categories with the exception of upper-middle-income countries.

There is a direct relationship between food affordability and a country's level of economic development. The data show, however, that middle-income and upper-middle-income countries have experienced the biggest improvements in affordability, while low-income countries are being left behind. During 2012-16 the *Affordability* score of low-income countries has improved by only 1.9%, this compares with rises of 5.2% for middle-income countries and of 5.4% for upper-middle-income countries. In the same period the *Affordability* score for rich countries has hardly changed, improving by just 0.1%. The average gain for all countries is 2.4%.

The findings suggest that once a country reaches a certain level of development, often associated with higher income but also with improved governance, its capacity to deal with food insecurity improves rapidly and then remains high.

The indicator *Availability* assesses factors that influence the supply of food and the ease of access to food. It examines how structural aspects determine a country's capacity to produce and distribute food, and explores elements that might create bottlenecks or risks to availability. *Availability* is measured across eight indicators:

- Sufficiency of supply
- Public expenditure on agricultural research and development (R&D)
- Agricultural infrastructure

- Volatility of agricultural production
- Political stability risk
- Corruption
- Urban absorption capacity
- Food loss

Economies with fewer structural restrictions on food availability and more advanced agricultural markets tend to have environments that are more conducive to food security. Such environments are often less at risk of food supply shocks and can handle shocks better when they arise.

Regarding *Availability* indicator, The US is the top performer, followed by Ireland, Germany and France. The US performs well on most of the eight indicators, especially sufficiency of supply, public expenditure on agricultural R&D and the existence of crop storage facilities. It ranks third on food loss (only Finland and Singapore perform better). The US tops this year's overall GFSI largely because of its strong performance in this category (it ranks joint third on Affordability and third on Quality & Safety).

Nearly all countries in the top ten of the Availability category are from Europe or North America (the sole exception is New Zealand, which ranks eighth).

Although it requires significant investment, developing agricultural infrastructure, including crop storage facilities, roads and ports, is fundamental to improving a country's food availability. Countries with poor road and port infrastructure, particularly across the Sub-Saharan African region, are struggle to deal with the food access problems faced by remote rural populations. In landlocked Ethiopia, which ranks 60th in this indicator, the government has accelerated the building of a new railway line the country's only rail line to bring 98% of its food supplies from Djibouti, on the coast of the Horn of Africa.

Almost all high-income countries are near the top of the rankings in this category in the current index. Following declines in their overall scores throughout 2012-15, rich countries' Availability scores have improved in 2016.

In 2016, Asia & Pacific displaces North America as the region with the most stable agricultural production. Central & South America comes third, followed by the Gulf Cooperation Council countries, Sub-Saharan Africa, and the Middle East and North Africa. The region that experiences the biggest swings in agricultural output, Europe, is among those best equipped to absorb them, as fairly high personal incomes and development levels counterbalance production volatility.

A country's ability to avoid food insecurity is closely linked to political factors, and especially

the type of political system. The 40 countries at the bottom of the Availability category are prone to political instability and the overthrow of their governments.

The third category in the GFSI explores the nutritional quality of average diets and the food safety environment in each country.

Food quality and safety is measured across five indicators:

- Diet diversification
- Nutritional standards
- Micronutrient availability
- Protein quality
- Food safety

High-income countries with good governance perform especially well in the *Quality & Safety* category. The best 27 performers are all high-income countries. They dominate the rankings for nearly all the indicators that make up the *Quality & Safety* category. Two non-high-income countries, Mexico and Malaysia, are present in the top 20 in the micronutrient availability indicator. Belarus and Brazil are the non-high-income countries that make the top quartile in the category that measures protein quality. In the food-safety indicator, Romania and Turkey are the only non-high-income countries that match the scores of high-income countries such as Austria, Germany and Japan.

Four countries that are outside the top ten in the overall GSFI, as well as in both the Availability and Affordability categories, make the top ten when it comes to Quality & Safety. They are Greece (fifth), Spain (sixth), Finland (eighth) and Israel (tenth)—all high-income coastal countries with big fisheries and aquaculture sectors. The countries that have achieved the largest improvements are led by Benin (+4.7), Philippines (+2.3), Peru (+2.2) and Venezuela (+2.1).

The overall food-safety composite score, which measures the existence of food-safety surveillance and regulations, access to potable water and access to refrigerated foods, is closely linked to a country's performance in providing a varied diet and food safety. There is a fairly close link between the overall score in the Quality & Safety category and the presence of a formal grocery sector, which helps ensure consistent and accessible food products.

For the first time since the launch of the GFSI in 2012, the average score in the nutritional standards indicator—a composite of national nutrition plans, national dietary guidelines and national nutritional monitoring—has fallen across regions and income groups. The absence of national dietary guidelines in some countries is an area of weakness: 36 countries mainly in Sub-Saharan Africa, the Middle East and North Africa, and Central Asia—do not have guidelines that cover the entire population.

Although advanced economies have more diverse diets and their populations consume more high-quality protein and micronutrients, they also have higher levels of obesity. Obesity is a form of malnutrition, and is caused by the excessive consumption of macro- and/or micronutrients.

The GFSI data show that the GCC countries, which have seen the most dramatic change in diets in recent decades, have an extremely high proportion of obese people in their populations (at 36.7%). The correlation between countries' levels of development and the availability of micronutrients is relatively low. Factors other than income, such as culture and coastal access, play a significant role in determining national diets and thus influence access to micronutrients. All of the top 20 performers have access to the sea; many of them are located on established maritime trade routes. High-income countries in the Asia & Pacific region, and also the southern European nations, do particularly well.

CONCLUSIONS

Over the past five years, the Global Food Security Index (GFSI) has become a tool used worldwide across sectors to prioritise areas of action and improve national, regional and global food security systems.

Economic growth is no panacea. A 10% rise in GDP cuts chronic malnutrition by only 6%.²¹ The GFSI's five-year trends show that once a country reaches a certain threshold of economic development, its capacity to battle food insecurity improves dramatically. Low-income countries (those with GDP per head of US\$1,045 or less) have been making only very gradual progress on food security: in 2012-16 their average affordability score has risen by just 1.9%. This compares with increases of 5.2% and 5.4% respectively in the scores of middle-income and upper-middle-income countries.

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