



Food Shortages in 2020-22

It is more a question of accessibility than
affordability for the GCC countries

MARMORE

MENA INTELLIGENCE

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1. Executive Summary

- As the world came out of the Covid-19 pandemic in 2021-22, supply chain disruption and geopolitical conflicts led to food shortages and sharp increase in food prices.
- Gulf Cooperation Council (GCC) countries import nearly 85% of the food needs, which includes, around 93% of cereals, roughly 62% of meat and 56% of vegetables. Consequently, any disruption in global food production, supply, or distribution will lead to higher food prices.
- The food supply chain during the COVID pandemic was significantly affected, including shortage of harvest staff, transportation difficulties due to border restrictions, reduced operations due to containment measures, and pent-up demand, which all led to imported inflation.
- The Geopolitical tensions in Russia – Ukraine resulted in an export decline from Ukraine, falling steeply from 5 – 7 mmt per month before the war to an average of 3.5 mmt per month.
- Freight costs experienced a significant surge, increasing by seven-fold in the 18 months following the pandemic, which can be attributed to shipping and logistical restrictions. Uncertainty over the Black Sea Grain Initiative had led to soaring prices of cereals.
- Climate change, though subtle, is an important cause of supply disruptions. Besides that, the climatic conditions in GCC countries are less favorable for agriculture.
- The cost of fertilizers remains at historically elevated levels in 2023 even after falling from the highs of 2022. Heightened prices for the past two years can be accounted for events including the imposition of Western sanctions on Russia (being a leading exporter), an export ban on phosphate fertilizer by China, and escalated prices of natural gas.
- GCC countries faced high food inflation levels, especially in Saudi Arabia where the food inflation peaked at 14.3% y/y in July 2020. Food inflation in Kuwait had also elevated to 7.46% y/y in March 2023, accelerating quickly since the beginning of the period.
- UAE and Saudi Arabia have started implementing certain long-term strategies such as achieving self-sufficiency in production of key products such as wheat and using agri-tech to boost local production.

- Kuwait can try to diversify its sources of imports, ease border controls and promote local production of certain agricultural products by using technology. These strategies would help to mitigate risks of food supply chain disruptions and higher inflation owing to rising food prices.

Food shortages in 2020-22 – It is more a question of accessibility than affordability for the GCC countries.

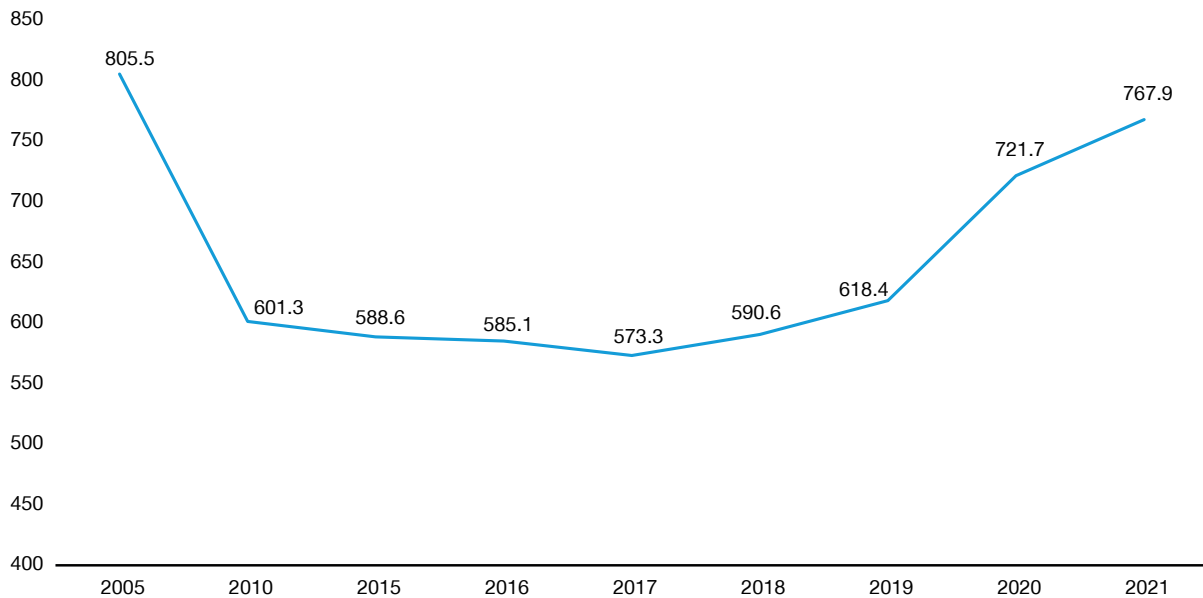
As a basic human need, availability, affordability and accessibility to food is of utmost importance. At a global level, several developed countries have over the years focussed on improving food security to ensure availability of quality food to all their residents irrespective of their income levels. However, in low-income economies, availability of food to low-income groups, access and nourishment have remained key concerns till date. Fighting hunger remains a major policy priority for their respective governments. For many developed countries, local production of food and food products have diminished over the years due to a plethora of factors including industrialization and limited availability of land due for agriculture. Their reliance on food imports in some cases have led them to become vulnerable to steep spikes in food inflations. Disruptions in food production caused by weather related events such as hurricanes, cyclones and heat waves, or geopolitical events such as the Russian war on Ukraine, which are primarily localized events have had led to a demand-supply gap in import dependent countries. As there is no control over production, import dependent countries have had to incur additional costs to procure food at higher prices. In a lot of cases, the rise in costs could not be passed over entirely to the population as it could affect the access of food to low-income groups.

GCC residents have not faced any major threats in terms of food security even though a large portion of their demand is met through imports. GCC nations, which have sufficient financial buffers, have ensured continuous supply of food imports and have absorbed any intermittent price shocks to ensure there are no concerns over affordability. GCC countries have a natural disadvantage in terms of availability of fertile land, sufficient water resources and climate conducive for agriculture, which has prevented them from being self-sufficient and made them heavily reliant on food imports over the years. This implies that any disruption in food production, supply or distribution elsewhere in the world would threaten the availability and force the nations to find substitutes and alternate supplies, usually at a high cost. This leads to a phenomenon of what economist term as “imported inflation” – increase in prices caused by higher price of supply at source. A recent example of imported food inflation was evidenced in the GCC during the Russia – Ukraine geopolitical crisis. According to the IMF, the Russian war on Ukraine had led to the worst food security crisis since at least the one following 2007-08 global financial crisis.

Global Scenario

In 2022, about 767.9 million people around the world went to bed hungry every night and the number of people suffering from acute food shortage has increased from 135 million in 2019 to 205 million in 2022, according to the Global Report on Food Crisis 2022 mid-year update. The numbers have seen a sharp increase since 2020.

Number of undernourished people globally (in millions)



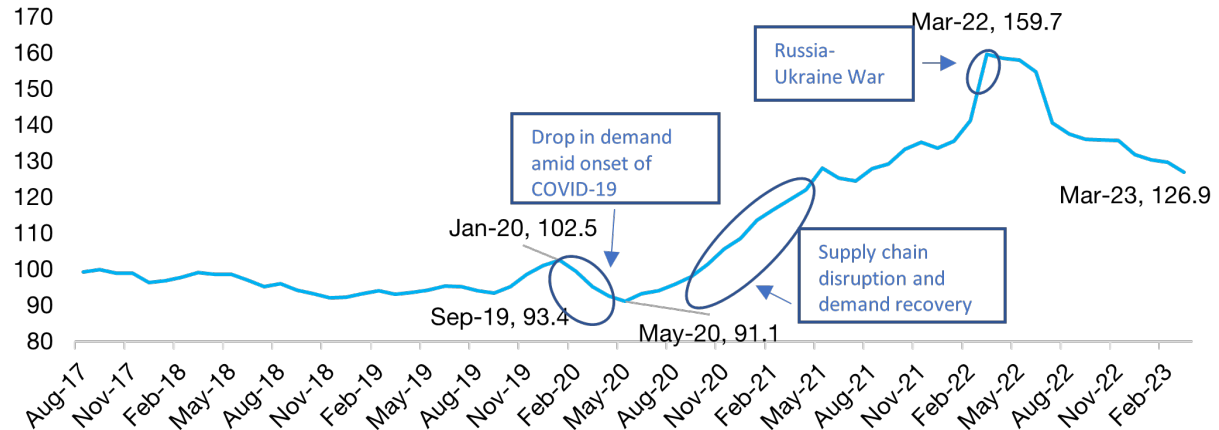
Source: Food and Agriculture Organization of the United Nations (FAO)

In 2022, some commodities that were reportedly in short supply include wheat, eggs, palm oil etc. Ukraine had exported an average of 3.5 million metric tons of grains and oilseeds per month from March to November 2022, marking a steep decline from the 5 to 7 million metric tons per month it exported before the war began in February 2022.¹ FAO (Food and Agriculture Organisation of the United Nations) has revised its projection for world cereal production in 2022 up to 2,774 million tonnes, although still 1.3% lower than in 2021.

Food prices have broadly seen an uptrend since October 2019, peaking in March 2022. Vegetable oils and cereals have seen the biggest price increase during the period. There have however been temporary declines along the way due to drop in demand owing to COVID-19 (early 2020), improvement in harvests (June 2021) and subdued global demand amid concerns of Omicron variant (Dec 2021).

¹ Farm Policy News

FAO Food Price Index



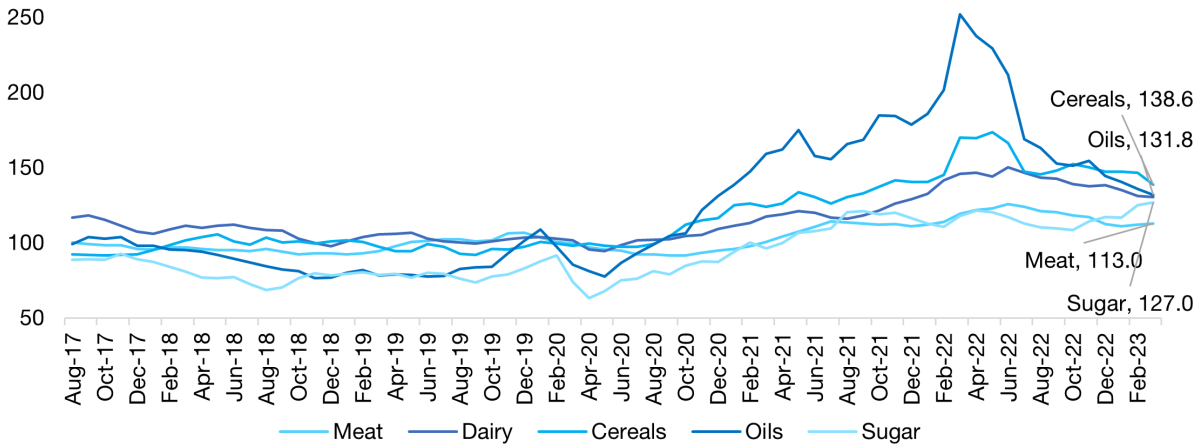
Source: Food and Agriculture Organization of the United Nations

After peaking in March 2022, food prices have seen a declining trend in the last few months of 2022 and the first quarter of 2023, with the sharp drop in July 2022 driven by Russia-Ukraine agreement (Black Sea Grain Initiative) to ease blockade of the main Black Sea ports, as well as to improved seasonal availability due to harvests in the northern hemisphere. While uncertainty over Black Sea Grain Initiative had led to rises in price of cereals, subsequent re-joining of Russia in the deal and extension of the deal for four months from November 2022 helped stabilize prices. Higher supply of vegetable oils has helped in lowering price pressures.²

The FAO food price index declined for the 12th consecutive month in March 2023. The FAO Food Price Index averaged 126.9 points in March 2023, 20.5% lower than its peak in March 2022. Ample supplies, subdued import demand, and extension of the Black Sea Grain Initiative are factors that contributed to the decrease in food prices. The decline in the index value in March 2023 was led by drops in the cereal, vegetable oil and dairy price indices.

² FAO,IMF

Sub-Indices of Food Price Index



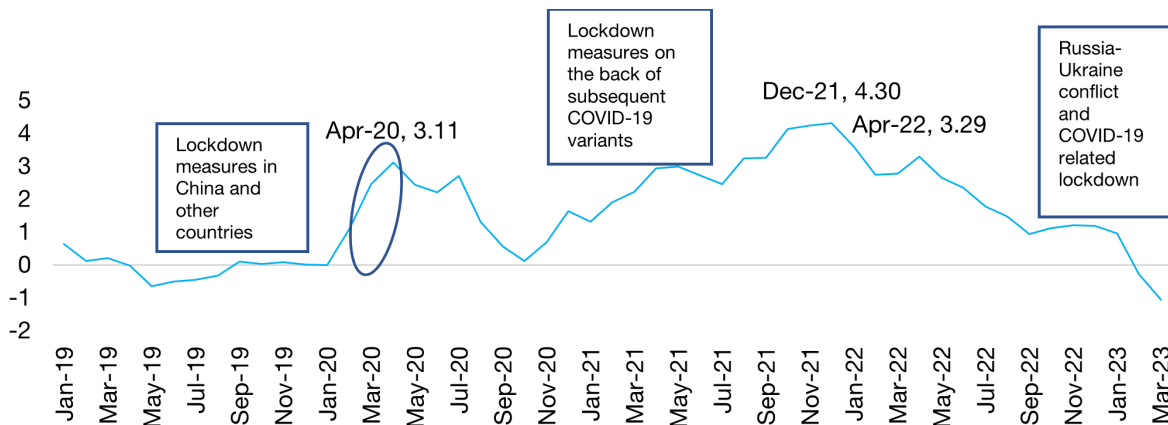
Source: Food and Agriculture Organization of the United Nations

Factors Causing Food Shortages and Rise in Prices

1. COVID-19 driven supply chain disruption

COVID-19 had impacted the food supply chain in many aspects - shortage of staff for harvest, difficulty in transportation of food due to border restrictions, scaling down of processing plants due to containment measures and sourcing problems resulting in thinly stocked store shelves. Such disruptions combined with stronger than usual demand for animal feed and agricultural products for industrial use, particularly from China had also led to increase in prices. The GSCPI (Global Supply Chain Pressure index) dropped to -1.06 in March 2023, suggesting that global supply chain conditions have eased following severe setbacks after COVID-19 crisis and geopolitical pressures.

Global Supply Chain Pressure Index



Source: New York Fed; Note: The index takes into account cross border transportation costs and country level manufacturing data; Values indicate standard deviation from the average with higher positive values indicating greater supply chain pressures.

2. Higher Freight Costs

Freight costs had increased sharply during the initial months of the pandemic. The cost of shipping a container on the global transoceanic trade routes rose by seven-fold in the 18 months following March 2020.³ Shipping and logistical bottlenecks due to lockdowns and safety restrictions, rise in fuel prices have led to rise in freight costs. The shipping and freight costs fell in March 2023 to pre-pandemic levels owing to oversupply of ships and decreased demand.

3. Climate change

Climate change is one of nature driven factors that affects food supply. As the impact is generally indirect and incremental, it often goes unnoticed. However, it plays a significant role in disrupting supply and in turn contributes to price rises. Climate change disrupts food availability, access to food and affects food quality. Climate change increases the threat of wildfires, posing major risks to farmlands and grasslands. Temperature and precipitation changes will likely increase the occurrence and range of insects, weeds, and diseases. Beyond a certain range of temperatures, warming tends to reduce yields because crops speed through their development, producing less grain in the process. Higher temperatures affect the ability of plants to get and use moisture. Some examples are lower production of wheat following drought in U.S, EU (H2 2020) and La Nina weather events (late 2020). Drought levels in La Nina during 2020, 2021, and 2022 were among the highest in the past 20 years. Average global crop yields for maize or corn are anticipated to witness a decrease of 24% by late century owing to projected increases in temperature, shifts in rainfall patterns and elevated surface carbon dioxide concentrations due to human-caused greenhouse gas emissions.⁴ The likely return of the El Nino weather phenomenon, exacerbated by global climate change, could increase the chances of record-breaking average global temperatures in 2023 or 2024, impeding crop production.

4. Rise in fertilizer prices

Diammonium phosphate (DAP) prices rose by nearly 155% y/y in December 2022 and ended the year at USD 562.50 per metric ton.⁵ Prices have been on an uptrend for past 2 years on the back of events such as imposition of countervailing duties by U.S on Russia and Morocco, export ban by China on phosphate fertilizer and rise in natural gas prices (a key input for ammonia production).

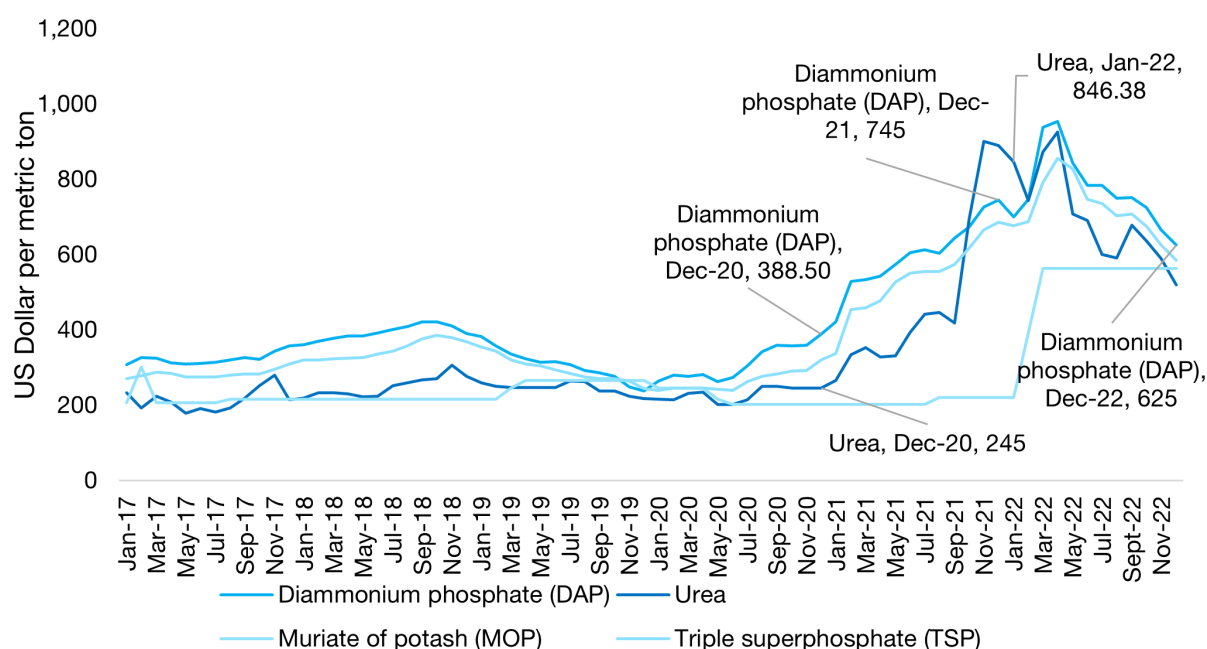
³ IMF

⁴ SVS NASA

⁵ Statista

With Russia being the world's leading exporter of nitrogen, the second of potassium, and the third of phosphorus fertilizer, U.S and EU ban on Russian fertilizers in the light of Russia's invasion of Ukraine has further pushed up prices. In 2023, fertilizer prices have eased from their early 2022 peaks, but they remain at historically high levels. The price easing partly reflects weak demand as farmers have cut back on fertilizer usage due to affordability and availability issues. Supply-side issues including a production crunch in Europe, disruptions due to sanctions on Russia and Belarus, and trade restrictions in China further fueled the fall in the prices.

Monthly global prices of fertilizers (January 2017- December 2022)

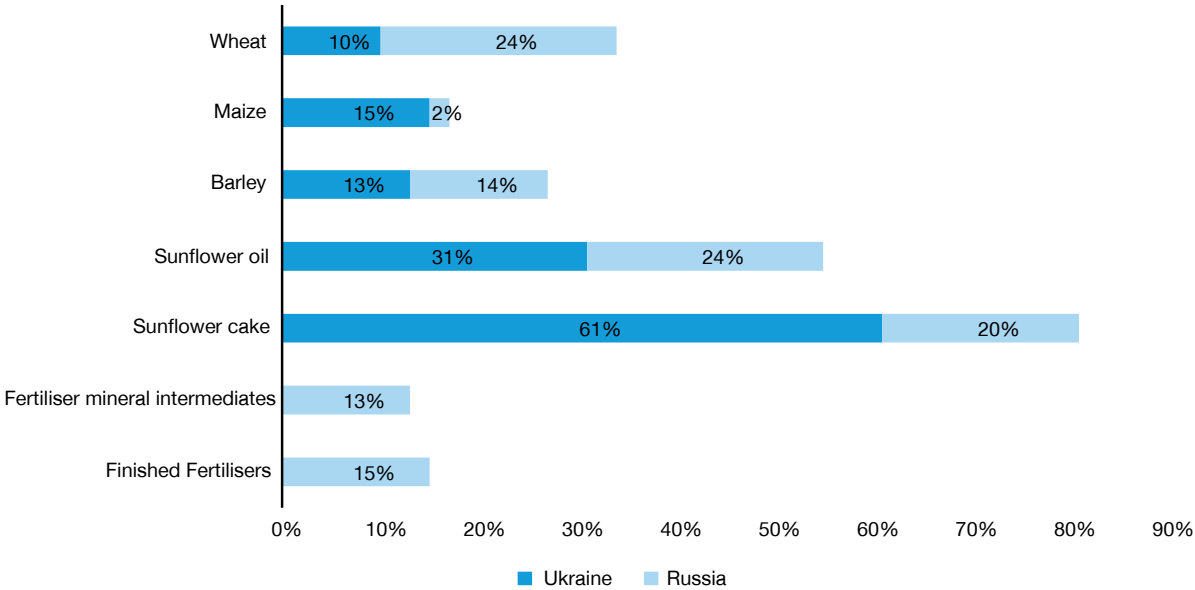


5. Russia-Ukraine war

Russia and Ukraine are among the top five global exporters for many important cereals and oilseeds. North Africa and the Middle East import over 50% of their cereal needs and a large share of wheat and barley from Ukraine and Russia. Given the countries' importance in the food value chain, Russia's aggression on Ukraine had been a key driver of food prices in recent months. The conflict had affected Ukraine's exports and production. With Ukraine channeling 90% of its exports through its ports, Russia's blockade of the ports had led to abrupt halt in maritime exports. In 2022, Russia's agricultural products exports increased 12% y/y from USD 37.1 billion in 2021.

In 2021 Ukraine’s agricultural exports totaled USD 27.8 billion. The Russia-Ukraine conflict and rising input costs are attributed with creating food insecurity for 42 million of the total 118.7 million people who were characterized as being food insecure in 2022. Ukraine could harvest about 51 million tonnes of grain in 2023, down from 86 million tonnes in 2021 owing to loss of land to Russian forces and lower yields.

Russia and Ukraine’s Share of global exports in 2021



Source: European Union

The global food crisis has been partially made worse by the growing number of food trade restrictions implemented by countries with a goal of increasing domestic supply and reducing prices. As of March 2023, 23 countries have implemented 29 food export bans, and 10 have implemented 14 export-limiting measures.

2. How are different nations affected by disruption in food supply

Countries across the world are impacted by the rise in food prices. Low-income countries are particularly affected, given their reliance on imported food and the high share of food in their total expenditure. Food items account for more than one-third of total merchandise imports in low-income countries like Afghanistan and Yemen and more than 50% in Somalia. Imports of wheat from Russia and Ukraine account for about 14% of total consumption in a median low-income country, compared with just 3% in the median emerging market and developing economy.

High share of food in low-income countries' total expenditure also leaves less room for households in these countries to bear the price rise, thereby increasing the risk of hunger.

High-income countries are also being impacted by a disruption in the food supply in terms of food inflation and shortages. About 10.2% of households in the U.S are food insecure.⁶ 56% of people living in the U.K have noticed a considerable shortage of food in their local supermarkets.⁷ Some products that were reported to be in shortage were baby formula in U.S, rapeseed, and sunflower oil in Germany The number of UK children in food poverty has nearly doubled in 2022 to almost 4 million. According to the Food Foundation thinktank, 22% of households reported skipping meals, going hungry, or not eating for a whole day in January 2023.⁸

Inflation Levels and Food Expenditure in Countries

Countries by Income Level	% of countries in the segment experiencing overall inflation over 5% (December 2022 – March 2023)	Share of food in total expenditure
Low-Income	88.2%	42%
Lower-Middle Income	93.0%	40%
Upper-Middle Income	89.0%	29%
High Income	85.7%	15%

Source: World Bank

GCC nations and the food situation

GCC countries import about 85% of their food, with around 93% of cereals, and approximately 62% of meat and 56% of vegetables.⁹ This makes the countries vulnerable to supply chain disruption, global rise in prices and protectionist trade policies.

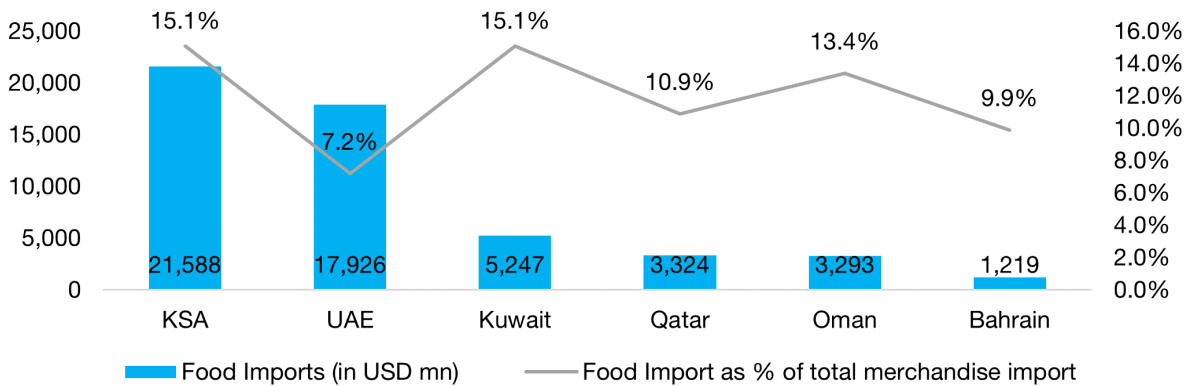
⁶ USDA,2021

⁷ We Heart

⁸ The Guardian

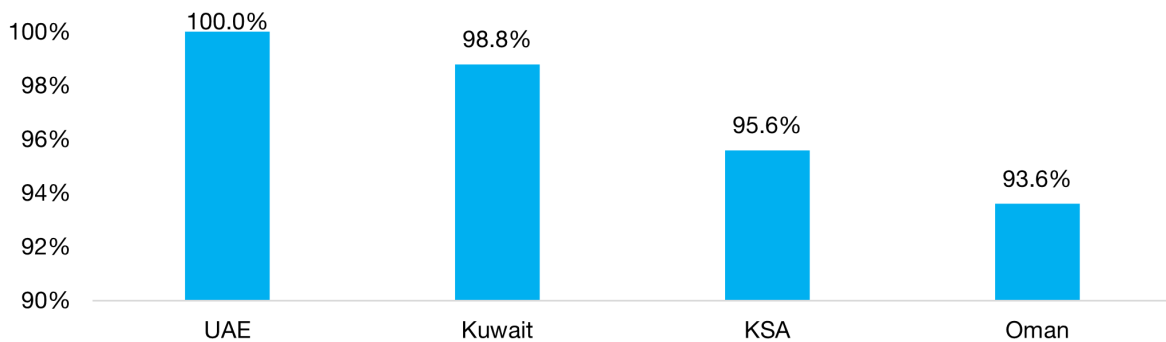
⁹ Strategy&

Food Imports by GCC Countries (2019)



Source: UNCTAD

Cereal Import Dependency (2016-2018 3-year average)



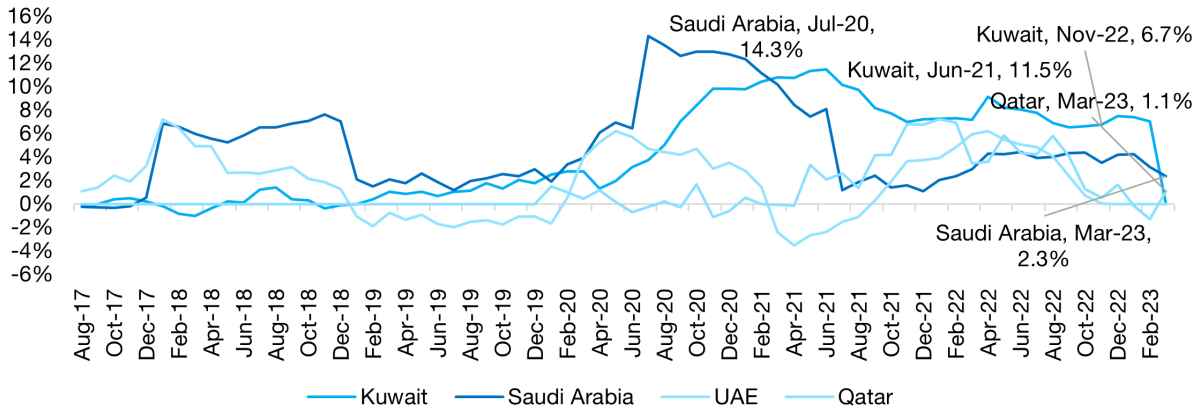
Source: UNCTAD; Note - The ratio tells how much of the available domestic food supply of cereals has been imported and how much comes from the country's own production. Higher the value, higher the dependence.

Countries had assured ample supply of food following the outbreak of COVID-19 (UAE) and the Russian war on Ukraine (Saudi Arabia, Oman). However, online grocery retailers had reported waiting times of two to ten days in UAE in the light of surge in demand following onset of the pandemic.

Global rise in food prices have reflected in GCC countries food inflation levels. In UAE, as of April 2022, cost of cooking and flour has increased by 20% and 40% respectively compared to pre-pandemic levels.¹⁰ While Saudi Arabia's food inflation seems to have reached as high as 14.3% in July 2020, it had been due to tripling of VAT from 5% to 15%. In 2023, food prices have softened in the GCC countries in line with the global trends.

¹⁰ Gulf News

Annual Food Inflation in GCC countries



Source: Refinitiv

Kuwait relies on imports for 95% of its food needs.¹¹ In January 2022, the cost of shipping food supplies to Kuwait reportedly increased 10 times — from \$1,400 to \$14,000 per ton. Food inflation has been at 7.46% y/y in March 2023, having accelerated from 7% y/y in the previous month.

In terms of food supply, the impact seems to be mixed. Wheat was one of the commodities highlighted to be impacted by the Russia-Ukraine war, as the countries were key exporters. However, Kuwait seems to have not been directly impacted as it imports wheat from Australia, according to Kuwait Flour Mills and Bakeries Company (KFMB), the sole importer of wheat in the country.¹² In March 2022, the company stated that it has strategic stocks to cover six months. According to the Director of Public Authority for Industry, the country had stockpiles of about 80% of basic materials – food and industrial items – sufficient for about 8 months to a year as of March 2022. However, the strategic stock of basic commodities had reportedly declined compared to the ample supply recorded in the previous year according to a media report in July 2022.¹³ According to the media report, frozen chicken and lentils were some commodities that were in shortage.

¹¹ Zawya

¹² Kuwait Times

¹³ Zawya/Al-Rai Daily

3. Policy recommendations, mitigation plans and the possible way out of the food supply disruptions

GCC Government's efforts to handle food supply chain disruptions and inflation

Given food security's importance at a micro level, when it comes under pressure, it could lead to slower growth and political unrest. Governments have taken measures to ensure accessibility to food and in some instances its affordability during the current shortage.

Examples of Government Measures to Handle Current Food Shortage

Measure	Country
<ul style="list-style-type: none"> Common network of food security safety 	GCC
<ul style="list-style-type: none"> 6-month Food Security Action Plan to reduce waste and to prioritize local produce Monitoring prices of about 300 basic food items Government monitoring of retailers' inventory to ensure adherence to regulations and to discourage hoarding Easing import regulations such as requirements of Arabic labelling, lowering of duties 	UAE
<ul style="list-style-type: none"> Price control system that enables consumers to check prices of basic food items in an online portal Freezing of food costs Additional 1kg of chicken for ration card holders to handle price increase in prices Maintaining sufficient food reserves to tide over supply chain issues Streamline importation of products from Egypt to lower level of testing Approved import of beef from Brazil 	Kuwait
<ul style="list-style-type: none"> Easing import rules on baby formulas to address the product's shortage Exemptions on trade restrictions with Russia to allow import of fertilizer 	U.S.
<ul style="list-style-type: none"> Reduced VAT on food Allowed farmers to temporarily cultivate in areas reserved for biodiversity Exemptions on trade restrictions with Russia to allow import of fertilizer 	EU

Source: Various



Additionally, despite being import-dependent, GCC countries had been able to maintain access to basic food items. This has been attributed to food security measures taken by countries following the 2007-08 food crisis. Some of the long-term measures taken by the countries are-

- **National Food Strategy** – UAE and Qatar have framed National Food Strategy. Such strategies are broadly aimed at increasing the domestic production of strategic food items, diversifying import sources, limiting waste, and building adequate reserve capacity. Kuwait has submitted a proposal on a strategic plan for food security until 2035 to the National Assembly. Kuwait’s municipality has reportedly finalized a food security strategy that involves strengthening the food security system, establishing activities in agricultural holdings, and issuing commercial licenses.
- **Adoption of agritech** – From adopting new farming methods such as vertical farming to building a dedicated hub for future clean tech-based food and agriculture products, UAE is taking multiple measures to boost food production. A sustainable economic farm project is also reportedly in progress in Kuwait. In light of COVID-19, the usage of digital tools for strengthening supply chains is being adopted by Saudi Arabia.
- **Purchase of farmland in foreign countries** – Given the less suitable climate conditions for agriculture in their homeland, Saudi Arabia and UAE have purchased farmlands in foreign countries. For example, Saudi Arabia has acquired land in Sudan, Pakistan, Belarus, and Ukraine.¹⁴

¹⁴ IISS



UAE: Multi-pronged Approach to Food Security

UAE has been taking a series of measures to boost food security. This includes partnerships with other countries through the India-UAE food corridor program, I2U2 initiative, etc. In addition to country level steps such as National Food Security Strategy 2021, measures are also being taken by individual emirates to boost food security. Some noteworthy initiatives are,

Dubai

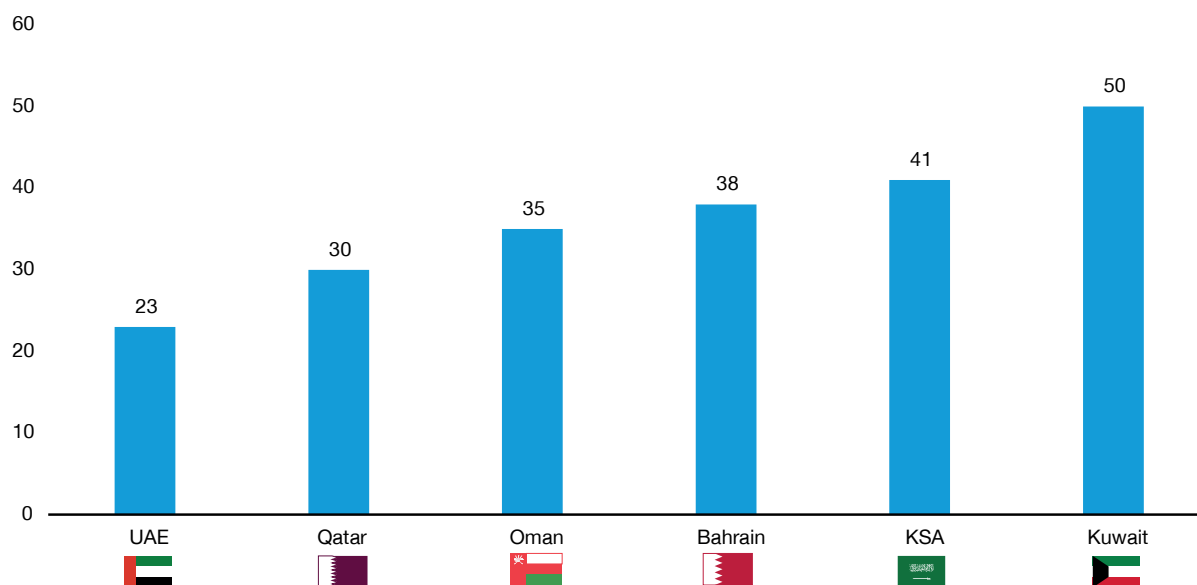
1. **Food Tech Valley** – One of the world’s premier agritech cities, it aims to cultivate over 300 different crops through methods such as vertical farming, hydroponics, etc.
2. **Food Security Dashboard** – The dashboard leverages artificial intelligence and data analytics to measure the five main indicators of food security - the supply index, stock availability, local production, consumption levels, and the cost of vital commodities.
3. **Hydroponic Farm** – Emirates Crop One has opened the world’s largest hydroponic farm, a 330,000 sq. ft vertical farm facility that aims to produce 1 million kilograms of chemical-free pesticide annually.

Abu Dhabi

1. **Funding Agritech Companies** - Abu Dhabi’s AED 1bn program to support launch of agritech companies in the emirate, USD 100mn investments by Abu Dhabi Investment Office (ADIO) are some examples of the investments made in agritech companies.
2. **Indoor Farm** – AeroFarms AgX, launched by Aero Farms and supported by ADIO is reported to be the world’s largest indoor vertical farm for R&D.

GCC countries have been rated at the top in the Global Food Security Index primarily due to their high income which enables them to procure food items even if there is a price increase. However, the countries have some space to scale to achieve self-sufficiency.

Global Food Security Index Rankings for GCC Countries (2022)



Source: Economist Impact

Kuwait's Food Subsidies

As part of its welfare state model, Kuwait subsidizes basic food items, such as rice, sugar, oil, and eggs, through the use of ration cards. Global rise in prices of subsidized commodities also increases government spending on the same. In June 2022, the Ministry of Commerce and Industry sought an increased budget to account for the rise in prices of food and construction materials. According to the World Bank, in general, subsidies including food subsidies cause economic distortions by artificially lowering prices and could in turn lead to overconsumption than otherwise and prescribes cash transfers as an alternative.

Kuwait imposed price controls on basic food products during the COVID-19 outbreak. The measure was taken to soften the impact of the rise in prices on consumers. However, the continuation of the program amid a sustained global rise in prices had reportedly led to suppliers re-routing products away from the country and importers finding it difficult to import products at global prices. This in turn impacts product availability and the choice of goods available for consumers.¹⁵ The President of the Union of Consumer Cooperative Societies has reportedly received requests from suppliers of commodities, foodstuff, and consumer and basic goods to allow them to increase prices citing global inflation, the Russia-Ukraine crisis, and oil price rise in global markets.¹⁶

¹⁵ Bloomberg

¹⁶ KuwaitTimes

Example of similar food supply disruptions in the past and learnings from it

2007-08 food crisis stemmed from rising global incomes, trade restrictions, increased use of biofuels, tight grain supplies, and increased participation in futures markets by nontraditional investors.¹⁷ From January 2004 to May 2008, price of rice, wheat and corn rose by 224%, 108% and 89% respectively.¹⁸ This led to food insecurity worldwide, civil unrest in several nations, and generated appeals for food aid from 36 countries. Export restrictions, panic buying, huge purchases by countries for stock building exacerbated the crisis.

Policies that helped mitigate and end the crisis are targeted safety nets which shield the poor from price rise but does not disrupt market signals for farmers, easing of import restrictions, increasing investment in agriculture sector and emergency donor assistance for countries in need by those who are better off.

Among GCC countries, Qatar has a more recent experience in the light of the blockade by Saudi Arabia, UAE, Bahrain and Egypt in 2017. Qatar imported about 80% of its food sourced through Saudi Arabia and the UAE. Qatar had worked around the issue to ensure food security through new trade agreements with countries like Turkey and Iran and by boosting domestic production to become self-sufficient in products like dairy.

Recommendations

At their peak, food prices had increased by 58% by March 2022 compared to pre-pandemic levels (December 2019).²⁰ Additionally, high fuel costs and fertilizer prices, weather events, Russia-Ukraine war have contributed to the food insecurity. Prices have declined from their peak reached in March 2022, supported by Russia-Ukraine agreement allowing grain exports from Ukraine. However, factors such as higher energy prices, geopolitics and weather events may impact supply and anchor prices at higher levels for a while.

Given the globalization of food supply chain, countries around the world are facing the impact of disruption in food supply in differing degrees. While it is a question of affordability and accessibility in low-income countries, it is more about accessibility in high-income countries that are reliant on imports.

¹⁷U.S Department of Agriculture

¹⁸Reliefweb

¹⁹Journal of Student Research, 2016

²⁰Food Price Index, FAO

Food prices are expected to fall by 5% in 2023 but are likely to remain high by historical standards and stabilize in 2024. Global grain supplies are expected to tighten in 2022-23 on the back of lower production in the U.S, Europe, China, and India. Despite the renewal of the Black Sea Grain Initiative in March 2023 for an additional 60 days, many bottlenecks are restricting the full potential of the deal, including a slowdown of ship inspections and high insurance costs. The U.S. Department of Agriculture forecasts Ukraine to produce about 75 million tons of wheat, barley, corn, sunflower seeds, rapeseeds, and soya in 2022-23, 31% lower than 2021-22 levels due to excessive precipitation in the autumn and lack of liquidity.²¹ While high energy prices, geopolitics, weather, steeper appreciation of the U.S dollar, and restrictive trade policies present upward risks to food prices, higher than historical average farming margins, lower agricultural commodity prices due to financial market concern of recession on the back of monetary tightening by central banks could ease some price pressures.²²

With GCC countries being in high-income category, while affordability is not a key concern, their reliance on food imports makes them vulnerable to supply chain shocks and resultant shortages. In this instance, while the countries had felt the pinch of the rise in food prices, they had been able to maintain the availability of basic items, thanks to a range of short-term measures such as a price control system, maintaining sufficient food reserves, etc. and long-term measures such as adoption of agritech.

In Kuwait, food inflation has been at 7.46% y/y in March 2023, having increased at the fastest pace since the start of the year. The impact in terms of availability seems to be mixed with reports on enough wheat but a shortage of items such as frozen chicken and lentils. While the country reported having stockpiles of about 80% of basic materials – food and industrial items – sufficient for about 8 months to a year as of March 2022, strategic stock of basic commodities had reportedly declined compared to the ample supply recorded in the previous year according to a media report in July 2022. Against this backdrop, measures such as boosting the food supply, diversifying import sources, and easing border control procedures could aid the country in improving food security.

COVID-19 had exposed food retailers to demand and supply-side uncertainties. Demand had been impacted by multiple factors such as panic buying and hoarding, demand recovery supported by fiscal and monetary stimulus, shift to e-commerce and more recently high inflation levels and a rising interest rate environment. COVID-19 lockdown (particularly strict ones as in China), geopolitics, trade restrictions have exposed the fragility of globalized supply chains.

²¹World Bank

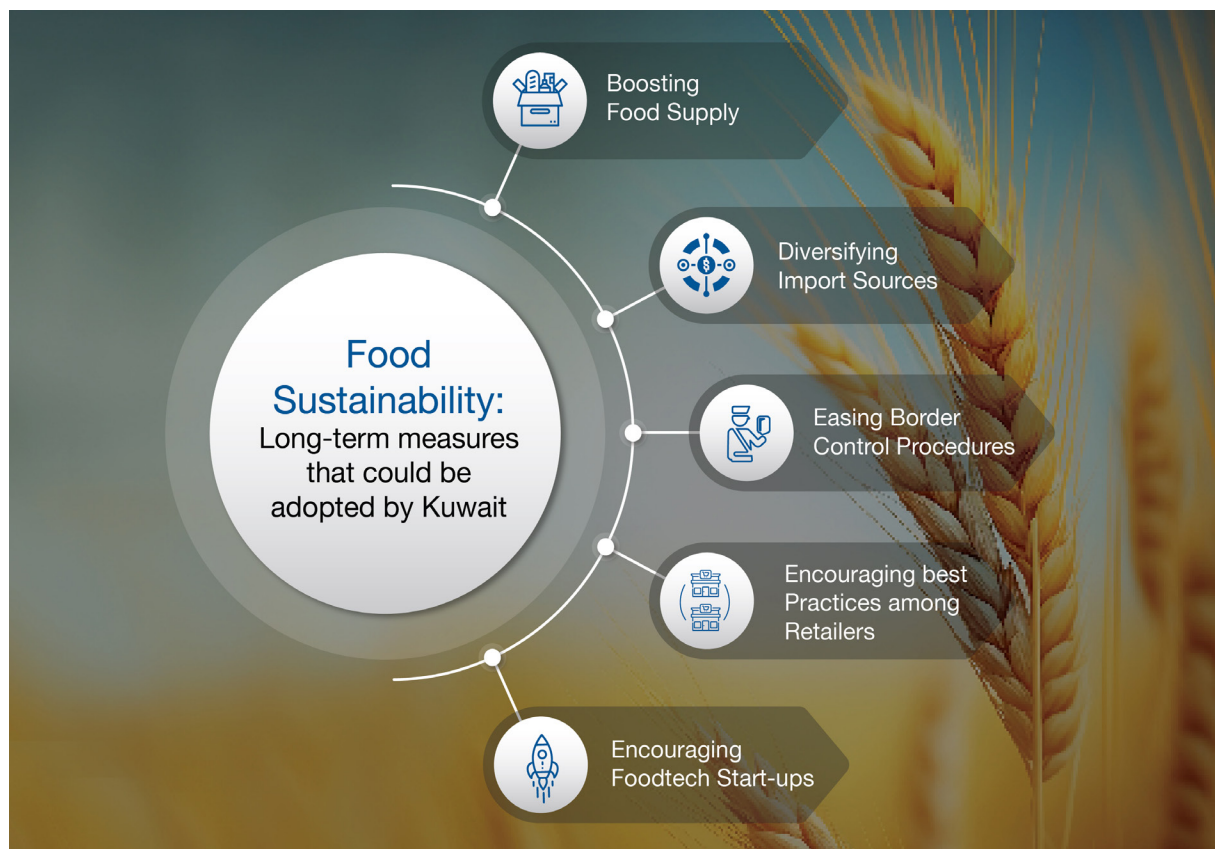
²²Morgan Stanley, Fitch

The supply chains tailored to be cost efficient turned out to be rigid in the face of emerging uncertainties. Such uncertainties warrant preparedness and strategic re-orientation on the part of retailers in multiple fronts. Measures such as vendor diversification, introducing alternate products to consumers that fare better in terms of prices or supply prospects, real-time demand forecasting etc. would position retailers to better handle current uncertain times.

Geopolitical risks are heightened, global supply chains are more integrated than ever before, climate change is increasing the uncertainty associated with food production and a few countries have resorted to bans on food imports increasing the question of being dependent on food imports for the GCC countries. Even if alternate sources of supply are obtained, it implies that the GCC countries must be prepared to bare the brunt of food inflation more frequently than before in history. Hence, a combination of short-term measures and long-term policy actions is needed to ensure that external events do not have a major impact on the food ecosystem in the GCC region.

Long term food security for Kuwait – recommendations and suggestions

As with other GCC countries, while Kuwait is food secure in terms of affordability, it is prone to supply chain risk due to dependence on imports. Some measures that could be considered to improve the country’s long-term food security are:



- **Boosting food supply** - Given the region's non-conducive climate for agriculture, Kuwait would have to ensure the adoption of certain practices to improve the local food supply. For example, while Saudi Arabia had achieved self-sufficiency in wheat, cultivation of the cereal over the years had depleted its water table, leading to phasing out of wheat production. Techniques like hydroponics and drip irrigation help in water efficiency. Horticulture would also require lower water usage. Agro-investments in developed food-secure countries could aid in ensuring better food security than those in food-insecure countries that are more prone to conflicts or weather events.
- **Diversifying import sources** – Seven countries including UAE, and Saudi Arabia contribute to about 50% of imports for Kuwait.²³ Ensuring different sources of import would reduce dependency and supply chain risks.
- **Easing border control procedures** – Minimizing border custom checks for agricultural freight and usage of e-certificates instead of physical documents could be implemented for speeding up the process.

Possible business solution for food retailers to mitigate the impact of the ongoing food supply disruption

Amid high prices and possible shortages on the back of fragility in supply chains, food retailers must ensure their goods are competitively priced and their shelves are well stocked. Some measures that retailers could adopt to navigate these troubled waters are,²⁴

- **Offering alternatives** – Introducing and taking steps to improve customer awareness of alternative products that have a more robust supply would help satisfy customer needs and maintain sales. Customer awareness could be built through prominent displays and ads.
- **Open communication channel with suppliers** – Seeking information from suppliers on the expected supply of products could help retailers better plan their inventory and promotions.
- **Diversify vendors** - Maintaining multiple vendor channels could aid in improving the chances of product availability.

²³ WITS,2020

²⁴ Square up

- **Customer Awareness** – Informing customers on supply chain-related reasons for out-of-stock and directing them to alternatives could aid in customer retention and maintaining a retailer's brand image.
- **Demand forecasting** – Estimating demand based on prior sales history only may not hold well in a fluid environment. Using real-time data would help in improving the accuracy of forecasts by taking current issues into account.



Conclusion

Food security plays a key role in influencing hunger and poverty levels, inflation, economic growth and political stability. In recent times, COVID-19 driven supply chain disruptions and hoarding had sparked food shortages and rise in food prices. At their peak, food prices had increased by 58% by March 2022 compared to pre-pandemic levels (December 2019). Additionally, high fuel costs and fertilizer prices, weather events, Russia-Ukraine war have contributed to the food insecurity. Prices have declined from their peak reached in March 2022, supported by Russia-Ukraine agreement allowing grain exports from Ukraine. However, factors such as higher energy prices, geopolitics and weather events may impact supply and anchor prices at higher levels for a while.

Given the globalization of food supply chain, countries around the world are facing the impact of disruption in food supply in differing degrees. While it is a question of affordability and accessibility in low-income countries, it is more about accessibility in high-income countries that are reliant on imports.

With GCC countries falling in high income category, while affordability is not a key concern, their reliance on food imports makes them vulnerable to supply chain shocks and resultant shortages. In this instance, while the countries had felt the pinch of rise in food prices, they had been able to maintain availability of basic items, thanks to a range of short- term measures such as price control system, maintaining sufficient food reserves etc. and long-term measures such as adoption of agritech.

In Kuwait, food inflation has been at 6.7% y/y in November 2022, having reached a high of 9.1% in April 2022. The impact in terms of availability seems to be mixed with reports on sufficient quantity of wheat but shortage of items such as frozen chicken and lentils. While the country reported to have stockpiles of about 80% of basic materials – food and industrial items – sufficient for about 8 months to a year as of March 2022, strategic stock of basic commodities had reportedly declined compared to the ample supply recorded in the previous year according to a media report in July 2022. In this backdrop, measures such as boosting food supply, diversifying import sources and easing border control procedures could aid the country in improving food security.

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