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in the Near East and North Africa region

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ABBREVIATIONS

ADAFSA	Abu Dhabi Agriculture and Food Safety Authority
Agritech	Agricultural technology
CEPA	Comprehensive Economic Partnership Agreement
DAP	Diammonium phosphate
FAO	Food and Agriculture Organization of the United Nations
FAO RNE	Food and Agriculture Organization of the United Nations Regional Office for the Near East and North Africa
FAOSTAT	Food and Agriculture Organization's Statistics Database
FOB	Free on board
FPMA	FAO Food Price Monitoring and Analysis Tool
FTA	Free Trade Agreement
GCC	Cooperation Council for the Arab States of the Gulf
IFC	International Finance Corporation
IGC	International Grains Council
IPC	Integrated Food Security Phase Classification
NENA	Near East and North Africa
SMEs	Small and medium-sized enterprises
SSP	Smallholder Support Programme
WB	World Bank
WFP	World Food Programme

SUMMARY¹

Global food prices continue to drop at a slower pace in recent months; however, they are still well above the price levels observed in 2020. Commodity prices are set to fall gradually in 2024 and stabilize in 2025. However, conflict-driven oil supply disruptions create a significant upside risk for price forecasts. The food consumer price index is currently the highest in the Near East and North Africa among all world regions, with Lebanon, Egypt and the Syrian Arab Republic experiencing the highest food price inflation. However, in most countries of the region, food prices show a steady or decreasing trend.

With regards to crop prospects, land preparation was underway for wheat crops in the region, and the bulk of the planting was carried out in November 2023 with initial conditions being favourable. In Egypt, harvesting is nearing completion for summer season rice and maize crops. In the Sudan, weather and conflict may reduce millet and sorghum yields. In Yemen, cyclones, conflict and socioeconomic challenges can result in yield declines.

The Israel-Palestine conflict has caused, besides the immense human suffering, significant disruptions in food and trade corridors in the region. Gaza suffers a USD 1.6 million daily loss in farm production. Addressing the pressing humanitarian and food security needs of the population in the Gaza Strip is a must, and additional needs are emerging in the West Bank to safeguard and restore agriculture-based livelihoods. FAO mobilizes vital agriculture supplies and technical expertise to support the people of Palestine.

Concerning the food security situation in the broader region, Djibouti, Lebanon, Mauritania, the Syrian Arab Republic and Yemen are expected to have a widespread lack of access to food, while Libya and the Sudan are experiencing severe localized food insecurity.

The food policy monitoring of the region reveals that several countries are shifting to cheaper Russian wheat import sources (Algeria, Egypt, Morocco), in addition to increasing food security reserves (Egypt – rice) and building strategic food warehouses (Egypt).

Egypt, furthermore, aims to undertake horizontal and vertical agricultural expansion programmes to increase food security and boost exports by reclaiming new land, supporting the production of phosphatic fertilizers, enhancing quality standards, and opening new markets for agricultural products. Other countries are also boosting the production of locally grown and consumed commodities (coffee – Saudi Arabia).

Gulf Cooperation Council (GCC) countries continued to invest in regional countries and in broader Africa to boost national and regional food security by expanding agricultural production in the area: Qatar is supporting dairy production in Egypt, Emirati Al Dahra is purchasing land in Egypt to increase wheat production, and Elite Agro Projects, based in the United Arab Emirates, is establishing a wheat farm in Ethiopia and a tea factory in Uganda. International financial institutions (such as IFC) continued to support investments in developing regional agricultural value chains and skills. GCC countries have also entrusted the Saudi Plant Genetic Resources Bank with safeguarding the genetic diversity of plant resources and facilitating genetic studies and research.

¹ This Bulletin is intended to cover the countries of the Near East and North Africa (NENA) and Arab region: Algeria, Bahrain, the Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, the Sudan, the Syrian Arab Republic, Tunisia, the United Arab Emirates and Yemen. The terms NENA region and Arab region are used interchangeably.

One of the significant focuses of regional food policies continues to be reducing water stress and fighting climate change by constructing dams to harness rainwater (Iraq), investing in drought-resistant crops, and water-saving irrigation (Oman, Qatar). Due to a five-year drought, Tunisia extended its ban on the agricultural use of tap water. Saudi Arabia and the United Arab Emirates are leaders in climate tech financing, according to a recent State of Climate Venture Capital report. Regional initiatives included a joint effort to supply more drought-resistant seed varieties (in Libya by the Arab Organization for Agricultural Development and the Arab Center for Dryland Studies and Arid Zones Development). International cooperation also targeted introducing cutting-edge smart farms in desert conditions such as in Qatar by South Korea and vertical farming in the United Emirates by Finnish iFarm. Other initiatives include bringing international best practices in the region such as hatching eggs production in Saudi Arabia by Ukraine, dairy production in Nigeria by the United Arab Emirates, carbon footprint benchmarking and methane reducing technologies in feed and dairy in the United Arab Emirates by the United States of America. The United Arab Emirates continues to develop an array of free trade agreements with global partners, as it explores starting a Comprehensive Economic Partnership Agreement with New Zealand and building trade corridors connecting Europe to the Near East and Asia. It has also intensified efforts to combat food loss and waste. Trade restrictive measures in the region included the introduction of an export ban on olive oil in the Syrian Arab Republic followed by Morocco.

Section II of the bulletin highlights the critical importance of increased investments in the transformation of agrifood systems and realizing the ambitions of the 2030 Agenda and the Paris Agreement. Against this background, FAO has been a strategic partner in organizing the 2023 World Investment Forum in Abu Dhabi with nine sessions dedicated to the theme "Investing in Transforming Agrifood Systems. Increased investments in agrifood systems are critical in establishing sustainable, inclusive and resilient food systems that can meet the complex challenges of the region effectively. There is, however, a lack of adequate public and private investment in agrifood systems. This necessitates scaling up additional private and public investments by mobilizing additional inclusive financial resources that are aligned with the Sustainable Development Goals (SDGs), including innovative financial mechanisms, blended finance, and other instruments that lower the risks of agricultural investments. On the other hand, repurposing existing agricultural subsidies can also enhance the bridging of the investment gap in the transformation of agrifood systems. Multistakeholder approaches and partnerships can be catalytic in achieving these objectives.



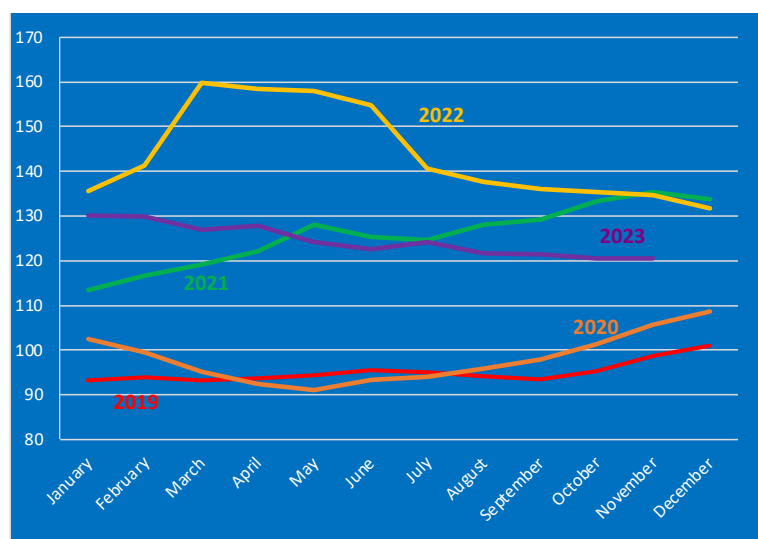
© FAO/Pedro Costa Gomes

SECTION I: FOOD MARKETS AND FOOD SECURITY SITUATION²

Global food markets

Global food prices continue to drop at a slower pace, though they remain well above the price levels observed in 2020 (Figure 1). The **FAO Food Price Index** averaged 120.4 points in November 2023, unchanged from its revised October level, as increases in the price indices for vegetable oils, dairy products and sugar counterbalanced decreases in those of cereals and meat. The index stood 14.4 points (10.7 percent) below its corresponding level one year ago. Commodity prices are set to fall gradually in 2024 and stabilize in 2025. According to the World Bank, **conflict-driven oil supply** disruptions create a significant upside risk for price forecasts.

Figure 1. FAO Food Price Index

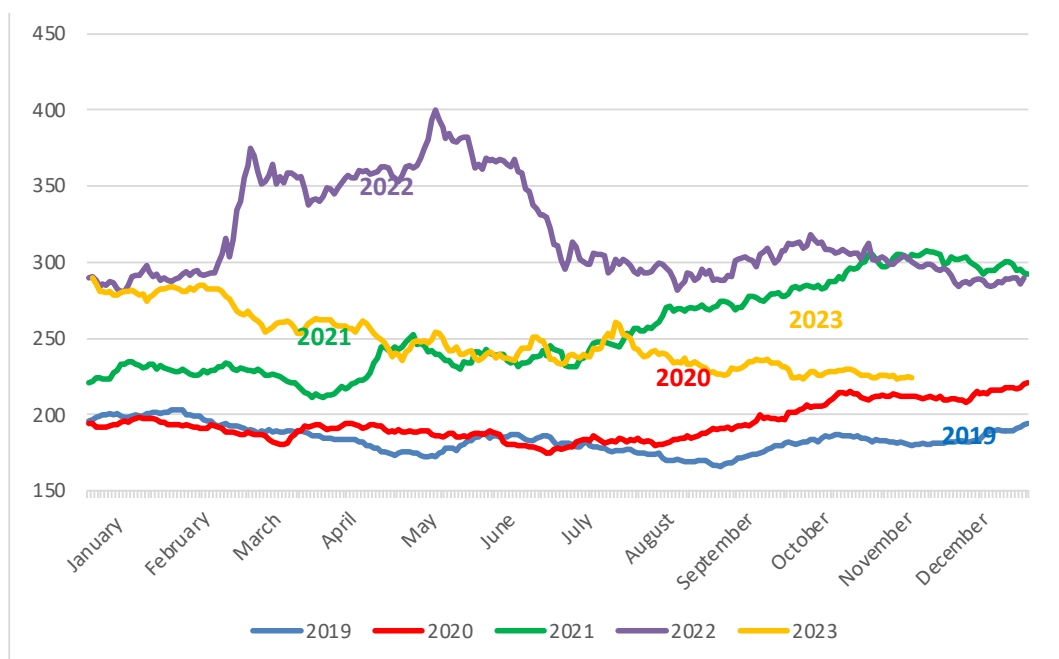


Source: FAO. 2023. FAOSTAT: World Food Situation. In: FAO. Rome. [Cited December 2023]. <https://www.fao.org/worldfoodsituation/foodpricesindex/en/>

² The maps presented in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of FAO concerning the legal status of any country, territory, or the delimitation of its frontiers or boundaries.

The wheat subindex of the Grains and Oilseeds Index by the International Grains Council (IGC), which tracks the price movement across seven essential commodities, was 25.3 percent lower on 15 November than the same period last year (Figure 2). **Wheat prices are currently above their 2019–2020 price levels**, while **markets remain volatile** as shipping has resumed from Black Sea ports though persistent attacks on export infrastructure continue to roil markets.

Figure 2. Wheat subindex of the Grains and Oilseeds Index by IGC



Source: International Grains Council (IGC). 2023. Grains and Oilseeds Index. In: IGC. London. [Cited November 2023]. <https://www.igc.int/en/markets/marketinfo-go.aspx>

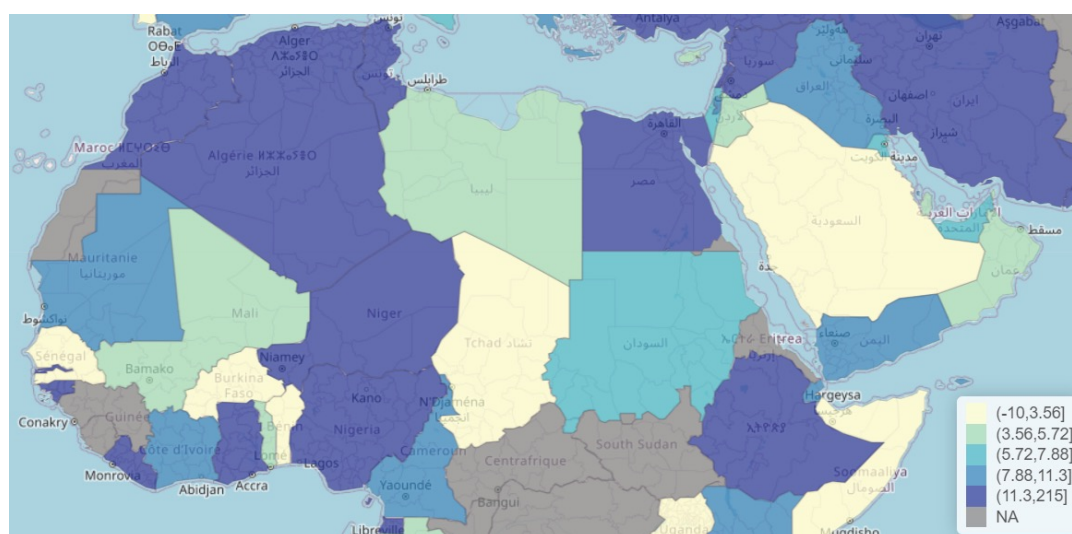
The World Bank Natural Gas Index peaked in August 2022; it returned to its July 2021 levels by October 2023 (Figure A1, Annex). Prices of fertilizers, particularly nitrogen fertilizers, are significantly affected by natural gas prices as their production requires massive energy. The prices of fertilizers have fallen back since their peak in April 2022. In September 2023, diammonium phosphate (DAP) prices were 29.8 percent lower than a year before, urea prices went down by 44 percent and potassium chloride prices by 51.8 percent (Figure A2). However, **prices of all fertilizers are still above their level in 2020**. Mineral fertilizers play an important role in the agrifood sector by providing essential nutrients for agricultural production.

Achieving food price stability remains a top priority

Global headline inflation continues to fall, from 9.2 percent in 2022, on a year-over-year basis, to 5.9 percent in 2023 and 4.5 percent in 2024, while **3.5 percent is projected for the NENA region in 2024**.

Significant disruptions in food and trade corridors have occurred in the region since the Israel-Palestine conflict escalated in October 2023. According to [FAO Nowcasting Tool](#), the **food consumer price index was the highest in the Near East and North Africa (16.8 percent) among world regions** as of 23 November 2023.³ Within the region (Figure 3), the six-month moving average food consumer price indexes are as follows (as of 20 November 2023): Algeria (13.67 percent), Bahrain (7.18 percent), Egypt (68.41 percent), Iraq (7.83 percent), Jordan (0.59 percent), Kuwait (5.98 percent), Lebanon (265.36 percent), Libya (3.79 percent), Mauritania (9.18 percent), Morocco (14.2 percent), Oman (2.49 percent), Palestine (4.84 percent), Qatar (0.7 percent), Saudi Arabia (2.51 percent), the Sudan (9.56 percent), the Syrian Arab Republic (38.04 percent), Tunisia (14.59 percent) and the United Arab Emirates (3.25 percent).

Figure 3. Expected year-over-year food price variation map (FAO Data Lab)



Source: FAO. 2023. Data Lab. In: FAO. Rome. [Cited November 2023].

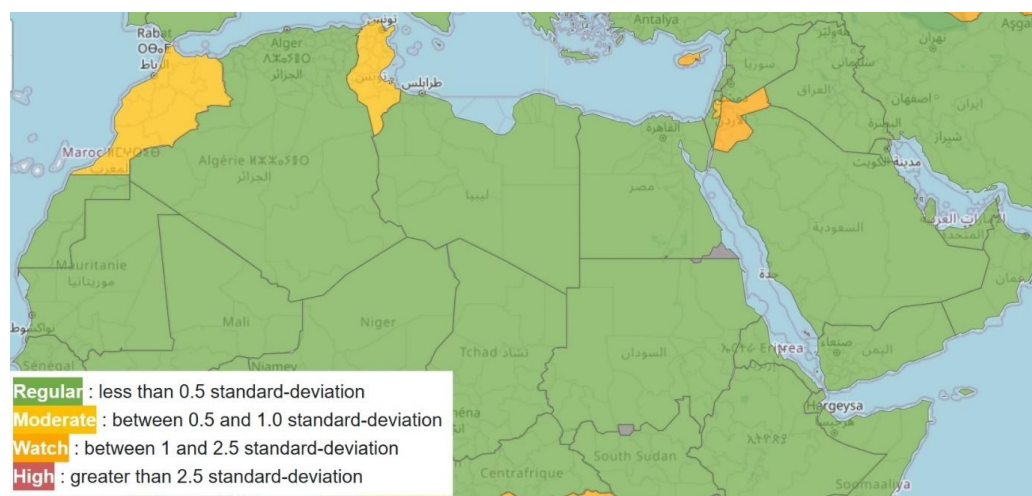
http://foodandagricultureorganization.shinyapps.io/dl_foodprices/

Note: The final boundary between the Sudan and South Sudan has not yet been determined. The final status of the Abyei area is not yet determined.

In most countries of the region, food prices show a steady or decreasing trend with the exception of Jordan, Morocco and Tunisia, where it shows a moderate acceleration (Figure 4) based on the FAO Daily Food Prices Acceleration Monitor.

³ World average: 8.1 percent, East Asia and Pacific: 7.6 percent, Europe and Central Asia: 7.5 percent, South Asia: 6.1 percent, Latin America and Caribbean: 14.0 percent, North America: 3.2 percent, Sub-Saharan Africa: 8.9 percent, as of 23 November 2023.

Figure 4. FAO Daily Food Prices Acceleration Monitor



Source: FAO. 2023. Data Lab. In: FAO. Rome. [Cited November 2023].

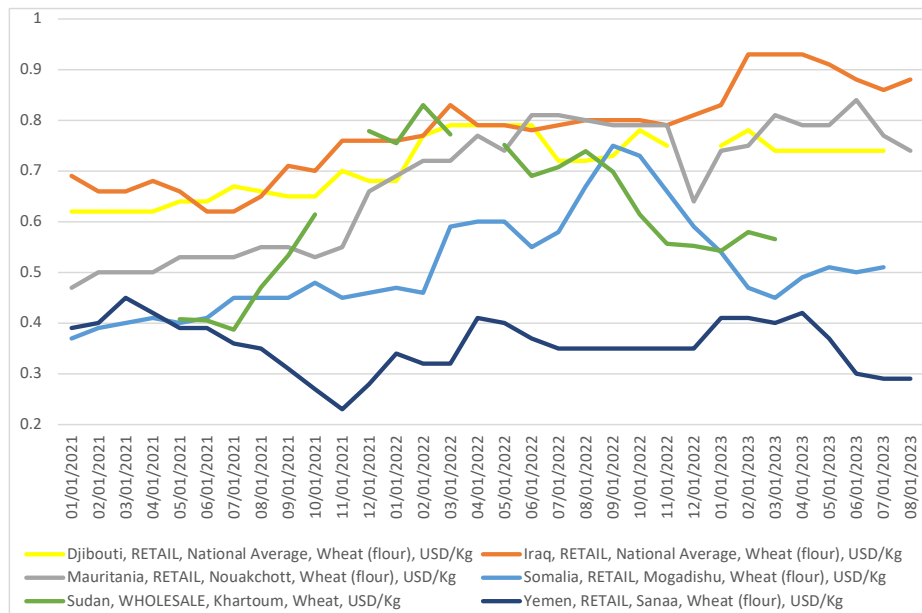
http://foodandagricultureorganization.shinyapps.io/dl_foodprices/

Note: The Daily Food Prices Acceleration Monitor developed by [FAO's Data Lab](#) aims to detect abnormal growth/acceleration in daily food prices on a basket composed of 14 commodities derived from a crowdsourcing platform ([Numbeo](#)).

The final boundary between the Sudan and South Sudan has not yet been determined. The final status of the Abyei area is not yet determined.

The [FAO Food Price Monitoring and Analysis \(FPMA\) Tool](#) shows varying food retail prices across the NENA region countries and across different commodities. Figure 5 shows the example of wheat price developments. Since January 2021, the cost of wheat flour has increased by 19.4 percent in **Djibouti**, by 27.5 percent in **Iraq**, by 57.4 percent in **Mauritania** and by 37.8 percent in **Somalia**. Conversely, the retail price of wheat flour has decreased in **Yemen** by 25.6 percent. In recent months, the increasing price trend seems to slow down, and even reverse, **as prices have ceased to increase** (such as in Djibouti or Iraq), or have decreased (Mauritania, the Sudan, Somalia, Yemen), though price levels are still significantly higher in most cases compared to prices at the beginning of 2021.

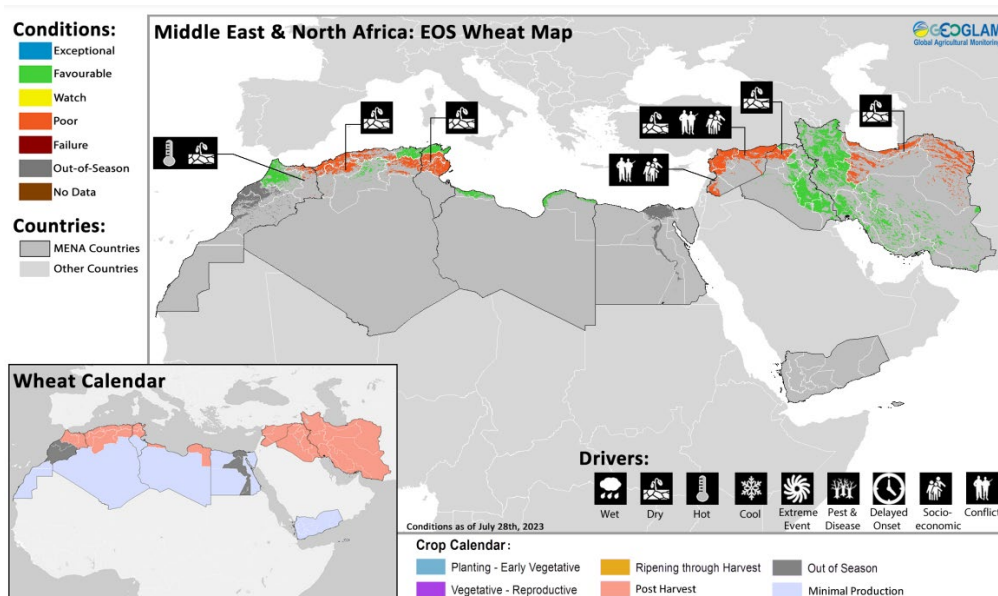
Figure 5. Wheat (flour) retail prices in selected NENA countries



Source: FAO. 2023. FPMA Tool. In: FAO. Rome. [Cited September 2023]. <https://fpma.fao.org/giews/fpmat4/#/dashboard/tool/domestic>

Initial crop conditions are favourable

Figure 6. Crop conditions

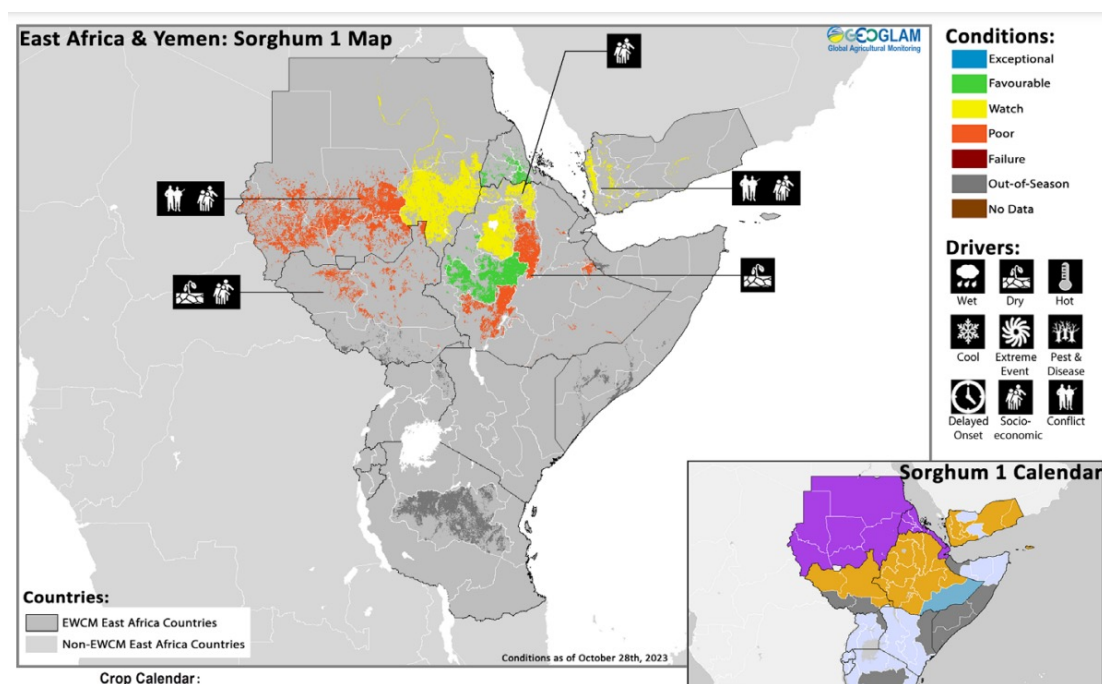


Source: Crop Monitor Early Warning. Issue No. 88. November 2023. [Cited November 2023]. https://cropmonitor.org/documents/EWCM/reports/EarlyWarning_CropMonitor_202311.pdf

Note: The final boundary between the Sudan and South Sudan has not yet been determined. The final status of the Abyei area is not yet determined.

Land preparation was underway for wheat crops, and the bulk of the planting was carried out in November 2023, and **initial conditions are favourable in the region**. In **Egypt**, harvesting is nearing completion for summer season rice and maize crops while Nili season (Nile Flood) rice continues to develop for harvest from December, and overall conditions remain good.

Figure 7. East Africa and Yemen sorghum crop conditions



In **Djibouti**, main season millet and sorghum crops continue to develop under favourable conditions, and harvesting will begin in November.

In the **Sudan**, main season millet and sorghum crops continue to develop for harvest from November (Figure 7), and concern remains as weather inconsistencies in combination with ongoing conflict hinder the agricultural season and could reduce yields. As of late September, many fertile areas in the southeast experienced unusually dry and hot conditions, while parts of the Northern, River Nile, South Darfur, White Nile, and South Kordofan states experienced heavy rainfall and flash floods. Additionally, ongoing conflicts continue to escalate across multiple regions, including major urban centres and some rural areas. In rural regions, the conflict is indirectly affecting trade routes, leading to reduced trade and higher prices that consequently reduce access to inputs and equipment. However, direct conflict incidents have occurred in some rural parts of greater Darfur and greater Kordofan regions, limiting access to agricultural fields.

In **Yemen**, sorghum harvesting is nearing completion. Despite beneficial rains received in the western highlands, above average temperatures may affect vegetation conditions, and high sea temperatures pose a high risk of cyclone activity. In late October, Tropical Cyclone Tej made landfall on the eastern coast, bringing heavy rainfall and torrential showers to eastern regions of Hadramawt Governorate. Additionally, conflict and socioeconomic challenges continue to result in yield declines at the national scale.

Food security situation in the region

According to [FAO Global Information and Early Warning System](#) (November 2023), Djibouti, Lebanon, Mauritania, Palestine, the Syrian Arab Republic and Yemen are expected to have widespread lack of access to food, while Libya and the Sudan are experiencing severe localized food insecurity.

Djibouti has seen a poor start of the July–September rainy season and unfavourable weather forecasts raising concerns for the unprecedented multiseason drought. According to the latest [Integrated Food Security Phase Classification \(IPC\)](#), about 285 000 people are estimated to face severe acute food insecurity (IPC Phase 3 [Crisis] and IPC Phase 4 [Emergency]) in the July–December 2023 period. This figure, which includes about 185 000 people in IPC Phase 3 (Crisis) and 100 000 in IPC Phase 4 (Emergency), amounts to about one-quarter of the country's population and increases by almost 50 percent on a yearly basis. Food insecurity disproportionately affects rural populations (IPC, 2023), with an average of 40 percent of the rural population experiencing high levels of acute food insecurity (IPC Phases 3 and 4). This includes refugees living in the country's three camps. In urban areas, such as Djibouti City, an average of 15 percent of the population analysed will be food insecure, primarily among the poorest and those dependent on day labour with very limited sources of income and subsistence activities.

The dam destruction in the eastern part of **Libya** in September further increased humanitarian needs. The escalation of the conflict in October 2023 is likely to increase humanitarian and emergency assistance needs, while access to the affected areas remains a concern in Palestine.

Sowing the winter cereal crop remains challenging in **Lebanon**, the **Syrian Arab Republic** and **Yemen** as farmers are constrained by the lack of liquidity and high prices of generally imported inputs, which is expected to have a negative impact on the extent of the area planted and yields.

Since the outbreak of conflict in the **Sudan** in April 2023, [FAO has distributed nearly 10 000 tonnes of seeds](#). The critical seeds support has reached nearly 1 million farming households (5 million people) with about 10 000 tonnes of seeds (sorghum, millet, sesame and groundnut) in 16 out of the 18 states of the Sudan. This support helps strengthen household food security and nutrition for at least 12 months. As a multiplier effect, it also ensures farmers can produce enough food during that period to meet the cereal needs of between 13 and 19 million people.

Palestine

The hostility between Israel and Palestine is drastically affecting all dimensions of food security. Water, food, medicine and fuel are urgent priorities to alleviate human suffering. FAO Director-General, Qu Dongyu, called for an immediate humanitarian ceasefire in his [statement on 12 November 2023](#). Agricultural and agrifood activities in Gaza have largely collapsed since the onset of the hostilities and the interruption of water, food and fuel supply. Fisheries and livestock activities and the production of fresh fruits and vegetables have come to a standstill, reducing access to critical sources of protein and nutritious foods, as well as key sources of

employment and livelihoods. FAO considers all the civilian population in Gaza to be food insecure.

FAO is committed to addressing the pressing humanitarian needs of the population in the Gaza Strip and additional needs emerging in the West Bank to safeguard and restore agriculture-based livelihoods. It continues to mobilize technical expertise to support the people of Palestine, including through our co-leadership of the Food Security Cluster. FAO is mobilizing vital agriculture supplies for transport to Gaza once access and resources are available, and will support agrifood sector assessments on the ground as soon as conditions allow.

On 28 November, the Palestinian Central Bureau of Statistics stated that [Gaza suffers a daily loss of USD 1.6 million in farm production](#). The institution assesses that the losses are likely higher considering the destruction of farm equipment and farmland, and damage caused to thousands of trees, especially olive trees. The economic impact is also significant, considering that 55 per cent of Gaza's agricultural products are exported.

In the [West Bank](#), food security worries due to violence, movement restrictions and disrupted supply chains continue to grow. Access to resources is limited, fears of displacement are high and severe food shortages loom. Closures, blockades and economic challenges push people into instability, increasing the risk of severe poverty.

Food policy-related developments

Algeria

Algeria and Morocco, both significant players in Africa's wheat trade, have [shifted away from French wheat](#) in favour of Russian wheat. Changes in import policies and price competitiveness in both countries have contributed to a decline in French wheat exports to 4.3 million tonnes in 2023/2024 from over 7 million tonnes in the previous years, with Russian wheat often being more affordable.

Egypt

Egypt's General Authority for Supply Commodities (GASC) was set to purchase [480 000 metric tonnes of Russian wheat](#) in a private deal with Russia's United Grain Company (OZK), comprising eight wheat shipments in November and December. Egypt is a significant wheat importer, and Russia is a top global exporter. The purchase is estimated at around USD 265 per tonne FOB, with payment in 270-day letters of credit. Following disruptions in global wheat markets caused by Russia's invasion of Ukraine, Egypt has shifted toward direct purchases for better prices, even as it explores deals with France and Bulgaria.

In response to escalating food prices and ongoing inflation, Egypt's Ministry of Supply and Internal Trade has [purchased 250 000 tonnes of rice](#) to support the country's strategic rice reserves over a six-month period. Additionally, the Egyptian government has recently announced an ambitious plan to reduce prices of various food commodities by 15 to 25 percent for six months, providing relief to consumers and streamlining customs procedures to alleviate economic pressures.

The Egyptian Government has adopted an ambitious plan aimed at significantly increasing agricultural exports by 2025/2026 to around 6.3 million tonnes annually. This plan, outlined in the [Economic and Social Development Plan](#) for the fiscal year 2023/2024, seeks to address challenges hindering optimal export capacity utilization, enhance quality standards and open new markets for agricultural products. The plan emphasizes expanding investments in both horizontal and vertical agricultural expansion programmes, utilizing modern techniques, improving water efficiency and promoting organic farming practices. These efforts align with the overall goal of boosting self-sufficiency, reducing import dependency and fostering sustainable agricultural development.

President Abdel Fattah EL-Sisi launched the ["Decent Life" initiative](#), a nationwide immunization campaign as part of the awareness programmes for breeders, including counselling seminars, with the aim of educating them on disease prevention. Dr Fathi Abdel-Aal of Minya Governorate stressed the importance of improving animal health to meet local market demands for meat and dairy products at affordable prices and discussed efforts to provide veterinary care, immunizing 240 378 cattle in July with specific disease targets.

The Ministry of Agriculture is making significant efforts to achieve agricultural development through [horizontal expansion projects](#), including reclaiming new lands or vertical expansion by developing new high quality and productive crop varieties to maximize land and water utilization. Key strategies include reclaiming desert areas for agriculture with projects like Toshka Al Khair (1.1 million acres), the New Delta Project (2.2 million acres), the Northern and Central Sinai Development Project (456 000 acres) and the Egyptian Countryside Development Co. project (1.5 million acres).

Afreximbank has granted a USD 400 million loan to support a [phosphatic fertilizers project](#) in Egypt, according to government officials on 30 August 2023. The loan will fund the phosphatic acid production project undertaken by El Wady for Phosphate Industries and Fertilizers (WAPHCO) in the New Valley Governorate. With all the technical, economic and financial studies completed, the project is expected to commence production in two and a half years. Spanning a 560 000 square metre area, it will incorporate a three million square metre storage facility, require an investment of USD 1 billion, and have an annual production capacity of 1 million tonnes.

Minister of Supply and Internal Trade, Ali EL-Moselhy, inaugurated a new phase of the national project in Luxor Governorate to build strategic food warehouses, with an investment of USD 48.52 million. This initiative is part of the larger plan to establish seven such warehouses across Egypt, aimed at [boosting food reserves and reducing losses](#). The warehouses will adhere to international standards and use advanced technology for storage operations to ensure product quality and year-round availability. The effort is essential for Egypt, a major wheat importer, to enhance its food security, particularly after disruptions caused by geopolitical events. The initiative aligns with Egypt's push for local production and resilience against climate change, and it will contribute to efficient storage systems and inventory management across governorates.

In October 2023, the Qatar-based dairy production company, Baladna Q.P.S.C., signed a [cooperation agreement](#) with the Egyptian state-owned entity, Suez Canal, with the aim of enhancing food security and agricultural self-sufficiency in Egypt. The agreement outlines a comprehensive plan with a total investment volume of up to USD 1.5 billion. Key initiatives

within the deal include establishing a significant cattle farm with an initial capacity of 20 000 dairy cows, producing 300 million litres of fresh milk annually to boost Egypt's dairy production and food security. Additionally, the project involves cultivating a vast 113 000 hectare area in the New Valley Governorate to meet the project's feed and agricultural product requirements for both local consumption and export.

Minister of Agriculture and Land Reclamation, Mr El-Sayed El-Quseir, announced the [ongoing release of feed supplies](#) in coordination with the Central Bank. Between 8 and 21 September 2023, approximately 260 000 tonnes of maize and soybeans were released, amounting to approximately USD 133 million. Maize and soybeans are essential components of poultry and livestock feed, their release aims to support the local market and agricultural industry and to maintain a steady supply of these crucial agricultural commodities.

The United Arab Emirates agribusiness, [Al Dahra, is negotiating to acquire additional agricultural land in Egypt](#), potentially reducing Cairo's reliance on staple crop imports but raising concerns about water usage. The talks involve Al Dahra's local subsidiary, Al Dahra Egypt, and the Egyptian Army's National Service Projects Organization. It could involve substantial investments, primarily for desert reclamation and the cultivation of essential crops like wheat and corn. The arrangement might entail a gradual acquisition of 500 000 feddans (210 000 hectares) in Toshka, New Valley Governorate. Egypt, a significant importer of basic commodities, seeks to decrease its import costs due to foreign currency shortages, with wheat imports supporting heavily subsidized bread. Egypt has reclaimed some desert land to feed its growing population but still cultivates only about 4 percent of its total land area. However, wheat cultivation in the desert raises concerns about water use, prompting some experts to advocate importing wheat from more suitable regions.

Iraq

Iraq is [planning to construct 36 dams in 2024](#) to harness rainwater and address the ongoing drought crisis affecting the Tigris and Euphrates rivers due to reduced water releases and the impact of climate change. The dams will be located in various governorates across the country to collect and store rainwater during the summer. The Minister of Water Resources, Aoun Diab, stated that Iraq is expected to experience early rainfall during the upcoming fall and winter seasons, which will help ensure sufficient water reserves for drinking and agriculture. Construction will commence on a dam near Sinjar in northern Iraq and another in the western desert as part of the Government's efforts to combat the prolonged drought crisis in Mesopotamia caused by decreased water flow from Turkey and Iran.

Iraq's Minister of Agriculture, Abbas Jabr Al-Maliki, has directed the release of funds for [compensating farmers affected by hail damage](#) in the provinces of Diwaniyah, Muthanna and Najaf. These funds amount to 136 billion Iraqi dinars and will be distributed among the affected farmers.

Libya

The Ministry of Agriculture and Marine Resources with the Arab Organization for Agricultural Development will enhance the production of improved seeds, strengthen agricultural research centres, variety control authorities and seed accreditation, [supporting seed propagation](#)

efforts in both public and private sectors through a three-year initiative. Additionally, the Arab Center for Dryland Studies and Arid Zones Development (ACSAD) will supply Libya improved wheat seeds, targeting self-sufficiency.

Morocco

Morocco is anticipated to cover 50 percent of its soft wheat requirements with the [import of 2.5 million tonnes of soft wheat](#) from France this season, due to a significant decrease in wheat supplies from Eastern Europe. In response to a severe drought in 2022, Morocco had already imported 1 million tonnes of wheat from France during this summer. Morocco continues to be the primary destination for European Union wheat in the 2022/23 agricultural campaign, with the country purchasing 4 million tonnes of European wheat during the first four months of 2023, up from 1.4 million tonnes the previous year. This increased import of wheat is a result of Morocco's wheat supply shortage from Eastern Europe and the severe drought of 2022. Given the significant role of wheat in the Moroccan diet, the drought amplified the country's dependence on wheat imports, underscoring the need for Morocco to diversify its sources of food supply. Morocco's National Interprofessional Office for Cereals and Legumes (ONICL) has announced [subsidies for soft wheat imports](#) from October 1 to December 31, approved by the Finance and Agriculture Ministries. The initiative aims to encourage cost-effective grain imports, bridging the price gap to facilitate the import of cheaper Black Sea grain. This responds to last year's drought impact, with the subsidy programme part of Morocco's recovery efforts. The reopening of wheat import avenues from Russia signals diversification.

The International Finance Corporation (IFC) and Morocco's OCP Group, the world's largest phosphate-based fertilizer company, have launched an [agrifinance platform](#) with the goal of mobilizing USD 800 million for African countries by 2030. This platform aims to establish and support sustainable food production and distribution systems in Africa, with a focus on skill development, job creation and food security. By providing access to financing and skills training, the platform seeks to strengthen 30 agricultural value chains across Africa through 60 agrifinance operations, covering a wide range of crop types.

The Moroccan Government has taken measures to control the rising prices of olive oil in the domestic market by approving a decree that [temporarily bans the export of olive oil](#) to prioritize domestic supply. The ban will exclude high value-added oil products and canned table olives prepared for export. The increase in olive oil prices, reaching nearly 10 Euros per litre, is primarily attributed to prolonged drought conditions affecting olive production in Morocco. The announcement makes Morocco the third major olive oil-producing country to implement an export ban after officials in [Turkey took similar measures](#) in August, followed by [the Syrian Arab Republic in September](#). Morocco ranks second in olive oil production in North Africa and the Middle East and ninth globally, with a harvest of over 217 million litres in 2022.

Oman

Oman's Ministry of Agriculture, Fisheries and Water Resources is proactively promoting research and development in agriculture to enhance food security. Key initiatives include the Omani Seed Bank, preserving local crop seeds for new varieties, and the Oman Plant Protection Center, researching crop pests and diseases. The Government also invests in

[sustainable agricultural practices](#), focusing on drought-resistant crops and water-saving irrigation to fight effects of climate change.

Furthermore, to address the issue of water scarcity, the Ministry is boosting water efficiency in agriculture through projects like the [Al Aflaj Development Project](#), replacing traditional irrigation with modern systems. These efforts, including support for farmers and innovative techniques, aim to ensure food security by conserving water resources and increasing agricultural production.

Qatar

Expo 2023 Doha highlights Qatar's strides in agricultural self-sufficiency through tech investment and innovation, aligning with [Qatar National Vision 2030](#). The Ministry of Municipality supports farmers, reflecting in improved Global Food Security Index rankings. Qatar's commitment to sustainability aims to reduce groundwater dependence and adopting modern irrigation. The upcoming National Food Security Strategy 2024–2030 aims to enhance local production and technology adoption, ensuring food self-sufficiency. Qatar has strengthened its livestock sector further contributing to self-sufficiency in animal products.

Korea's Agriculture Minister, Chung Hwang-keun, and Qatar's Minister of Municipality, Abdulla bin Abdulaziz bin Turki Al Subaie, have agreed to [introduce cutting-edge smart farms](#) to address the challenge of growing fresh produce in Qatar's desert climate. These smart farms are seen as a promising solution for the country's quest to domestically produce vegetables, fruit and livestock feed in a challenging environment. Both ministers explored the possibility of joint investment in localized smart farm projects. The discussions also involved the exchange of experts and researchers in the field of smart farming.

Saudi Arabia

To support Saudi Arabia's food security goals, Poultry groups MHP and Tanmiah Food Company join forces in a [USD 53.3 million joint venture](#), a collaboration combining international expertise with local insights. MHP is the largest producer and exporter of chicken in Ukraine. The partnership, with a hatchery and feed mill, aligns with Vision 2030, focusing on economic diversification and improved food security. DHV, a subsidiary of Tanmiah Food, will own 55 percent of the venture, aiming to produce 175 million hatching eggs annually.

Saudi Arabia is actively pursuing the [expansion of its coffee production](#) to support economic diversification efforts and bolster its economy. With more than 400 000 Arabica coffee trees currently yielding over 800 tonnes of coffee annually, the Kingdom has ambitious plans to plant an additional 1.2 million coffee trees by 2026. The Ministry of Environment, Water and Agriculture is focusing on developing 15 provinces in the southwestern part of Saudi Arabia as major coffee producers, particularly of the Arabica variety, aligning with the goals of Saudi Vision 2030. The southern region of Saudi Arabia already hosts more than 2 535 coffee farms, including over 500 "model" coffee farms. Saudi Arabia ranks among the world's top ten consumers of coffee. Moreover, the Najran region serves as a centre for innovative experiments promoting environmental sustainability. Farmer Ali Dhafir Al-Harith has pioneered a [model farm](#) with 2 000 coffee trees, expanding coffee plantations in collaboration with local farmers. The region's success is attributed to favourable environmental conditions, including fertile soil,

freshwater availability, and moderate weather. Other Najran farmers are also succeeding with crops like herbal stevia and finger limes, boosting agricultural diversity and food production.

The GCC Committee on Agricultural Cooperation and Food Security has officially accredited the Saudi Plant Genetic Resources Bank, making it the first of its kind in the Gulf region. The [Saudi Plant Genetic Resources Bank](#) holds a wide array of plant genetic resources, including field and horticultural crop seeds, seeds for natural plants in pastures and forests, medicinal seeds, aromatic plants, and genetic pools. The bank also incorporates herbaria and biotechnology laboratories to facilitate genetic studies and research on the genetic diversity of plant resources from GCC member states.

Syrian Arab Republic

Farmers in the Daraa Governorate in the south of the Syrian Arab Republic are resorting to recording their deferred debts in US dollars to mitigate losses caused by the continuous depreciation of the Syrian pound. In the past week, the exchange rate reached 13 700 Syrian pounds to the dollar. To protect themselves, [farmers are now fixing the prices in US dollars when selling crops](#) before they are harvested. This shift is an attempt to safeguard their income, as sales operations lack legal mechanisms to protect farmers from fraudulent practices.

Tunisia

Tunisia has extended its [quota system on tap water](#) and ban on the agricultural use of tap water due to an ongoing five-year drought, along with measures like night-time water cut-offs and restrictions on car washing and public space cleaning. Dam capacity has fallen by about one billion cubic metres, with the Sidi Salem Dam at 16 percent of its capacity.

United Arab Emirates

Emirates Development Bank (EDB) has significantly supported food security by approving over AED 721 million for [food security projects](#) since the launch of its new strategy in April 2021. EDB has dedicated AED 30 billion to aid 13 500 SMEs in five key sectors, including food security. EDB's financing solutions align with the country's National Food Security Strategy 2051, supporting climate-smart agriculture and economic development.

Moreover, the [Abu Dhabi Agriculture and Food Safety Authority \(ADAFSA\)](#) is intensifying efforts to minimize food loss and waste (FLW) and enhance production chain efficiency. The Ministry of Climate Change and Environment and Abu Dhabi Waste Management Company (Tadweer) also launched [Waste to Zero](#), a global initiative to promote waste decarbonization efforts and establish a circular economy platform.

New Zealand's Trade and Export Growth Minister Damien O'Connor announced the start of exploratory discussions on a [Comprehensive Economic Partnership Agreement \(CEPA\)](#) with the United Arab Emirates. The potential agreement could boost cooperation in agriculture, services, government procurement, sustainability, and reducing non-tariff barriers. O'Connor also discussed trade matters in Saudi Arabia, reaffirming New Zealand's commitment to finalizing the New Zealand GCC-FTA and emphasizing momentum in trade agreements since 2017.

ADAFSA has launched the [Jahaziya platform](#), a comprehensive system dedicated to risk and crisis management, early warning systems, and the One Health framework covering health risks for humans, animals and plants. Jahaziya not only predicts impending risks, but also provides early detection, proactive foresight and immediate response to incidents related to food safety, epidemics, diseases, pests and more.

Nutridor Limited, a subsidiary of Nigeria's Tropical General Investments (TGI) Group, inaugurated its [advanced dairy production facility](#) in Dubai Industrial City, marking a historic event as the first factory commissioned by a Nigerian business subsidiary in the United Arab Emirates. The factory is capable of producing over 120 000 litres of liquid dairy daily. The operation is committed to clean energy, zero waste practices, automation, digital technology, sustainability, skillset development, and local value addition.

National Dairy and Masakin Dairy, both entities under Emirates Food Industries, have entered a partnership with the American company Alltech. They aim to revolutionize carbon footprint benchmarking and reduction efforts while introducing the [innovative methane-reducing technology](#), Agolin. The partnership includes access to cutting-edge carbon footprint benchmarking technologies and tools to measure their environmental impact accurately.

Abu Dhabi's wealth fund, ADQ, is in discussions with Turkey regarding the construction of a railway over the Bosphorus in Istanbul as part of a proposed [trade corridor connecting Europe to the Middle East and Asia](#). The railway is intended to traverse the Yavuz Sultan Selim suspension bridge, which links Istanbul's European and Asian sides.

The Finnish iFarm, a pioneer in [vertical farming technologies](#), has inaugurated the United Arab Emirates' first vertical farm using its innovative solutions in Dubai. This cutting-edge facility is set to produce a variety of fresh, high-quality crops. What sets this farm apart, is its pioneering iFarm Multigreens technology, designed for both microgreens and full-cycle greens cultivation, and its capacity to adapt to market demand, business objectives and seasonal variations.

Elite Agro Projects (EAP), a United Arab Emirates-based agricultural engineering, procurement and construction company, is in the process of [establishing a wheat farm in Ethiopia and a tea factory in Uganda](#). These projects aim to meet the growing demand for wheat and improve the livelihood of local farmers through agro-processing in Uganda. The wheat farm project in Ethiopia involves exporting part of the harvest to the United Arab Emirates and selling the rest in Ethiopia, while the tea factory project in Uganda aims to increase the farm gate price for local farmers' products.

United Arab Emirates has [taken the lead in climate tech funding](#) in the Middle East and North Africa and Turkey region, securing USD 401 million, which accounts for 62 percent of the total venture funding across 45 deals between 2018 and 2022, according to a report by MAGNITT. Turkey and Saudi Arabia followed with USD 124 million and USD 68 million, respectively. The region has experienced substantial growth in venture capital (VC) activity, accumulating USD 651 million in funding across 225 deals over the past five years, with climate tech now constituting 5 percent of total VC funding, marking an 11-fold increase since 2018. The horticulture sector received the most venture funding at USD 288 million, with renewable energy at USD 118 million, and renewable energy led in terms of the number of deals, totaling 39 between 2018 and 2022.



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SECTION II: INVESTING IN AGRIFOOD SYSTEMS

Introduction

In 2023, FAO participated for the first time as a **strategic partner** of the United Nations Conference on Trade and Development (UNCTAD) in organizing the [World Investment Forum](#) from 16 to 20 October 2023 in Abu Dhabi. The Forum provided an outstanding opportunity to draw attention to and raise awareness on the crucial impact of increasing sustainable investment in agrifood systems. FAO organized nine sessions (“FAO Track”) in the Forum under the theme **“Investing in Transforming Agrifood Systems.”**

Increased investments in agrifood systems⁴ are critical to realizing the ambitions of the 2030 Agenda and the Paris Agreement. As a means of implementing [SDG 2](#) (Zero Hunger), Target 2.A calls for **increased investment**, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular low-income countries. Furthermore, according to the FAO publication [“The future of food and agriculture 2022,”](#) investment is one of the key drivers in agrifood systems transformation, which, if activated, can spread its positive impacts throughout agrifood, socioeconomic and environmental systems, thanks to its multiple systemic linkages and feedback effects.).

Recent estimates by the Food and Land Use Coalition suggest that transforming food systems to ensure access to healthy diets, which also mitigate and adapt to climate change and address biodiversity loss, will [require an extra USD 300–350 billion per year](#) for the next decade globally. Investment in agrifood systems also presents opportunities for mitigating and adapting to climate change, addressing biodiversity loss and enabling access to healthy

⁴ The definition of agrifood systems transformation and its six pathways are identified in [SOFI 2021](#).

diets for all. Agroenterprises also require additional financing to grow their businesses and to invest in technology or transport to reach remote farmers. There is an urgent need to attract SDG-aligned, inclusive, and efficient public and private sector investment in agrifood systems to reduce food insecurity and all forms of malnutrition as well as to foster decent rural employment, green jobs, particularly for women and youths, in addition to income generation.

Agrifood systems transformation is key to ending hunger, achieving food security and improved nutrition, and promoting incomes and sustainable agriculture. However, [agriculture is far behind other sectors in attracting the necessary investments](#) to achieve the SDGs. In low-income countries, many farmers, processors and other actors need help accessing financial resources to invest in agrifood systems.

World Investment Forum 2023 FAO Track results

During the 2023 World Investment Forum (WIF), the FAO Track presented an outstanding opportunity to draw attention to and raise awareness on the crucial impact of increasing sustainable investment in agrifood systems. Agrifood systems hold paramount significance, not solely in the eradication of global hunger and delivering healthy diets, but also in expediting the progress towards achieving the SDGs, eliminating poverty, mitigating and adapting to climate change, and reversing biodiversity degradation.

The [2030 Agenda for Sustainable Development](#) highlights the critical role of agrifood systems in tackling global challenges such as malnutrition, poverty, the loss of biodiversity and ecosystem services, and climate change. Unfortunately, the world is significantly off track in achieving Zero Hunger by the end of this decade. Thus, there is an urgent need for a paradigm shift and transformation to more efficient, inclusive, resilient and sustainable agrifood systems for better production, better nutrition, a better environment and a better life, leaving no one behind.

Increased investments in agrifood systems are essential for the establishment of sustainable, inclusive and resilient food systems that are able to effectively meet the complex challenges of the region. There is, however, a lack of adequate public and private investments in agrifood systems. This necessitates scaling up these investments, repurposing existing agricultural subsidies, and mobilizing additional, SDG-aligned, inclusive financial resources, including innovative financial mechanisms, blended finance and other instruments that lower the risks of agricultural investments. Multistakeholder approaches and partnerships can be catalytic for fulfilling these objectives.

Investing in sustainable agrifood value chains and agribusiness can significantly contribute to agrifood systems transformation by creating income and employment, improving access to affordable and healthy diets, building the resilience of communities to climate change and optimizing the use of natural resources.

Investments in upgrading rural market facilities, such as improving cold storage facilities, deploying climate-smart processing, storage, and packaging, and utilizing handling technologies, **reduce food losses and negative environmental impact** and add more value to agricultural production.

Strategic foresight exercises can help long-term public planning and shaping policy processes in transforming agrifood systems. Findings from the foresight work of FAO and partners will envisage potentially significant technological developments and anticipate their impact, threats, and opportunities.

Almost 70 percent of the global population is projected to live in cities by 2050. Thus, there is also an urgent need to speed up the transformation of urban agrifood systems. Besides closing the financial gap, there should be closer cooperation between the local and national governments in developing and implementing national food safety.

Agrifood systems transformation must be inclusive; with particular focus on marginalized groups, such as smallholders, women, youth and refugees. While smallholders cultivate most farms in many countries, their farm investments are often undermined by a lack of access to inputs, resources and markets for profitable production. Young people face multiple challenges to participate in food systems fully. Limited decision-making power and control over resources often leave women unable to make strategic decisions and investment choices for themselves and their families. Refugees and people affected by conflict are especially dependent on agriculture but face significant challenges to integration into local food systems within their host communities.

Key outcomes of World Investment Forum 2023 FAO sessions

Despite the crucial importance of agrifood systems in accelerating progress towards SDGs, **there is an insufficient level of public or private projects and investments in agriculture** to promote agrifood systems transformation and sustainable agrifood value chains. The discussions highlighted the importance of local food production for regional food security and redirecting finance toward food production. However, it also pointed out the financial challenges facing indebted developing countries. The solution lies in employing innovative financial approaches and nurturing mutually advantageous partnerships between those possessing financial resources and those lacking them.

First, the **need for Public-Private Partnerships (PPPs)** for investing in agrifood systems was stressed greatly, as public investment alone is insufficient. Creating a conducive environment for the private sector is essential to encourage investments in agrifood systems transformation.

Second, additional, **SDG-aligned, inclusive financial resources need to be mobilized, including innovative financial mechanisms, blended finance, and other instruments that lower the risks of agricultural investments.** Blended finance combines public and private sector funding to reduce the risk for private investors, thereby making agrifood investments more attractive. This approach can be pivotal in attracting investors and catalyzing change.

Panelists also discussed strategies to make agricultural investments more secure, including **diversifying investments and using alternative collaterals.** Using carbon certificates as an alternative collateral for loans was discussed. In addition, **venture capital** was considered a viable option for investing in sustainability loans, especially when these loans carry elevated levels of risk, as venture capitalists are often willing to support high-risk projects in the

sustainability and environmental sectors, aiming to drive innovation and achieve sustainability objectives.

Moreover, **investing in sustainable value chains and agribusiness** can significantly contribute to creating income and employment, improving access to affordable and healthy diets, building the resilience of communities to climate change, and optimizing the use of natural resources. It was mentioned that 50 percent of GDP and 80 percent of employment were associated with SMEs in Africa. The focus should be on both start-ups and end-ups to promote successful agricultural entrepreneurship.

Apart from direct investments, **repurposing of the existing agricultural subsidies**, which are projected to amount to USD 2 trillion by 2030, can enhance agrifood systems transformation and address the three dimensions of sustainability (social, economic, and environmental). It is advisable to transition from providing subsidies based on output to offering subsidies based on inputs to lower the cost of production and technology adoption.

Furthermore, **transforming urban food systems** can play a pivotal role in fostering more sustainable value chains. This is particularly crucial due to the pressing challenges posed by urbanization, population expansion, and economic growth. With over half of the global population now residing in urban areas and 70 percent of food consumption occurring in cities, it becomes imperative to address the sustainability of urban food systems. To address these challenges effectively, there is a clear need to empower local administrations and foster collaborative efforts between national and local governments to align policies and initiatives aimed at promoting sustainable urban food systems.

In 70 percent of national pathways documents, **food loss and waste (FLW)** emerged as a significant concern. Approximately 14 percent of the food produced is lost within the supply chain, with an additional 17 percent wasted at the retail level, amounting to an economic loss of USD 400 billion. The discussion identified a range of causes, both direct and systemic, including production and harvesting practices, storage, marketing, consumer behaviour, infrastructure and policy-related issues. The NENA region experiences a high FLW rate, which underlines the need for region-specific interventions. The panel stressed strategic investments in reserve systems, optimizing land use, and private sector involvement to reduce FLW. Storage and post-harvest improvements, particularly in the grain sector, were highlighted. The introduction of social impact bonds, supported by private funds, was also suggested as a compelling approach to address food loss and waste effectively. Furthermore, the discussion emphasized that a substantial portion of food loss, exceeding 65 percent, occurs during the harvesting and production stages. Hence, technology emerges as a pivotal tool in mitigating FLW. This underscores an opportunity for private sector investment in technology solutions. Simple and readily accessible technologies, particularly in less developed regions, can have a profound impact on curbing food losses, particularly in post-harvest processing and storage stages.

In an ever-evolving climate, marked by increasing risks and volatility, the need for **strengthening resilience to shocks and changes, spearheaded by technology and innovation**, has grown significantly. The central theme of the discussion concerning technology and innovation was that the development of such new tools needs to be tailored to the specific needs of the targeted populations, thereby compounding the emphasis that needs to be placed on inclusivity in transformation.

The pressing need for technology and innovation in transforming agrifood systems becomes evident when examining the challenges and potential solutions presented during the panel discussions. Rising hunger rates and the significant contribution of agriculture to greenhouse gas emissions continue to be key areas of concern for policymakers across all sectors and require holistic approaches to the development and application of new technologies and innovations. Investment in robust technologies and innovative strategies stands as a critical factor in enabling this shift and transition.

In response to these challenges, the panel discussions highlighted potential solutions. Renewable technologies, such as solar and wind power, offer a pathway to reduce reliance on finite natural resources. Moreover, innovative technologies, like precision irrigation, possess the capacity to double agricultural yields while substantially decreasing the demand for irrigation water. Additionally, discussions underscored advancements in plant architecture and leaf adaptations, which could enhance crop resilience in the face of climate change.

Another critical challenge lies in **data collection, sharing and privacy**. Weather forecasts and data play pivotal roles in enhancing agrifood system resilience. However, concerns persist regarding data ownership and privacy, particularly between technology suppliers and individual farmers. A vital solution lies in the development of robust regulatory frameworks and the amendment of intellectual property laws to address data ownership, data value and data privacy issues within agriculture. These regulatory efforts aim to ensure equitable access to information and promote fair distribution of the value created by the data, all while avoiding stifling innovation. Utilizing standardized contract templates and harmonization processes can help mitigate data misuse and enhance regional cooperation.

Addressing the unique needs of **small-scale farmers** is paramount, with technology tailored to the small-scale farming context, categorized from basic to advanced, and adapted to local conditions to effectively combat climate change. A collaborative approach involving governments, civil society and the private sector is essential to address climate change effectively. Government support for private innovations, funding for start-ups and agribusinesses and private sector involvement are critical for promoting sustainable practices and driving the transformation of agrifood systems.

Agrifood systems are facing unprecedented challenges that demand creative policy decisions, specific investments, and responsible governance. To effectively address the complexity, uncertainty, volatility, and ambiguity of these challenges and trends in a collaborative way, **foresight practices are increasingly being employed in long-term public planning and policy formation**. Given FAO's track record of utilizing new and emerging technologies to create more sustainable futures, it's become abundantly clear that foresight exercises are necessary to know which areas require the most attention.

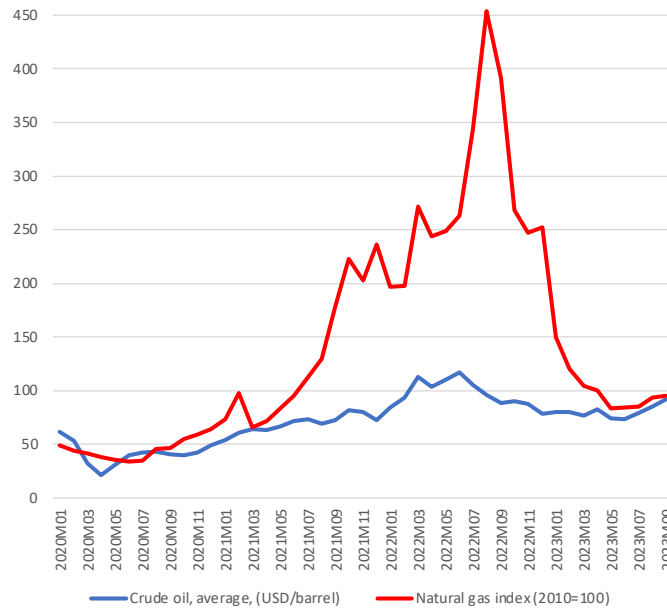
One of the pivotal benefits of using foresight revolves around the exploration of diverse future scenarios for agrifood systems. Through foresight exercises, stakeholders can delve into a spectrum of possibilities, ranging from the adoption of sustainable technologies to the potential risks associated with AI-controlled agrifood systems. This underscores the need for a proactive approach to anticipate and mitigate risks, as well as to seize emerging opportunities in the ever-evolving agrifood landscape. Foresight enables the development of a strategic vision that respects local contexts and production methods while simultaneously promoting efficiency.

Throughout all sessions, the issue of inclusivity remained a central concern and one session addressed the issue of **inclusive agrifood systems transformation**. To ensure that marginalized groups, including smallholders, women, youth and refugees, can fully benefit from agrifood systems, there is a critical need to invest in inclusive transformation. Smallholders often lack access to resources and markets, while youth face limited opportunities, and women have restricted decision-making power, hindering their ability to make strategic choices for themselves and their families at the household level. Refugees and those affected by conflict depend on agriculture but face challenges in integrating into local food systems. Therefore, investing in building inclusive food systems is essential to empower these marginalized populations and provide them with access to the opportunities and benefits that food systems offer, while also strengthening the overall sustainability of these systems. Creating an enabling environment and catalyzing investments are key to achieving this inclusivity, which will, in turn, generate more and improved job opportunities and increase smallholders' market access.

Discussions recognized the **private sector's pivotal role in agrifood systems transformation**. The private sector, in collaboration with governments and various other stakeholders, can empower local producers who have long been left behind by the global transformation of agrifood systems. The private sector can also ensure the correct leveraging of technology, including geospatial technology and precision agriculture, to empower smallholders and enhance their productivity. In the wake of the recent rise of climate-aware financing, incorporating green growth strategies and green financing within agriculture is imperative, given the looming environmental challenges. The NENA region has begun to witness a rise in green financing facilities that have been well integrated into national development strategies.

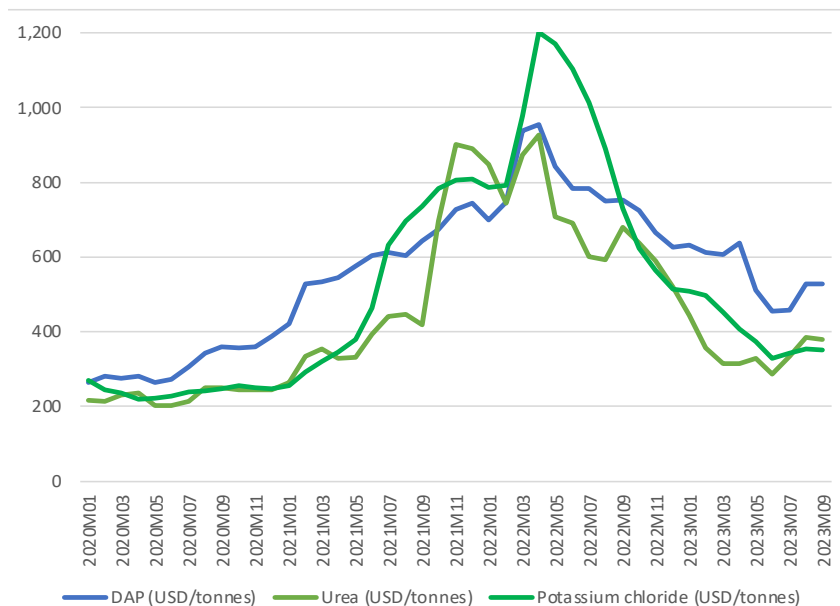
ANNEX

Figure A1. Crude oil (USD/barrel) and natural gas index (2010=100) of the World Bank



Source: World Bank. 2023. Commodity Price Data (The Pink Sheet). In: *The World Bank*. Washington, DC. [Cited November 2023]. <https://www.worldbank.org/en/research/commodity-markets>

Figure A2. Prices of fertilizers: Diammonium phosphate (DAP), urea, and potassium chloride (USD/tonnes)



Source: World Bank. 2023. Commodity Price Data (The Pink Sheet). In: *The World Bank*. Washington, DC. [Cited November 2023]. <https://www.worldbank.org/en/research/commodity-markets>

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