GCC Food Security Initiatives from COP28 to COP30

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Food security means having consistent, sufficient, safe and nutritious food supplies necessary to meet dietary needs for an active and healthy life, according to the United Nations Food and Agricultural Organization. The countries of the Gulf Cooperation Council (GCC), i.e. the United Arab Emirates (UAE), Saudi Arabia, Oman, Bahrain, Kuwait and Qatar are food secure, thanks to their oil wealth which is used to import almost 85% of their food and obtain additional food self-sufficiency at local levels.

The United Nations (UN) Climate Change Conference, COP28 UAE, which was held in Dubai from November 30 to December 13, 2023, marked several milestones to ensure food security in the GCC. To this end, GCC was instrumental in helping realize the COP28 UAE climate-food goals. COP29 held in Baku, Azerbaijan in November 2024, turned its attention to the food and agricultural sector, especially in smallholder farmers in middle-income countries (LMICs), many of which are suppliers for the GCC agricultural and technology industries, leading to initiatives for rapid AgriTech adoption, cellular agriculture especially in the UAE and Qatar, cultured meat production, and sustainable aquaculture for protein self-sufficiency. In COP30 held in Brazil in November 2025, the GCC supported initiatives to transform the agricultural and food systems industries, highlighting the urgency of transitioning from importing food to developing climate-resilient AgriTech. More importantly, the GCC took on a new role as Capital-Powered Resilience Architects to accelerate funding for AgriTech, diversify trade and protect supply chains, and promote low-carbon farming, tracked by the UN Framework Convention on Climate Change UNFCCC COP30.

Background on GCC Food Security

Heavily dependent on food imports, the GCC states are at the forefront of global debates to eradicate food insecurity. The bloc's history of importing food and achieving local food self-sufficiency turned a leaf in the 1980s, after the outbreak of the Iran-Iraq War (1980-1988). But hot temperatures challenged local food production policies, and pushed member states to introduce innovative steps for farming. Still, the global financial crisis that hit markets in late 2008 and the subsequent drop of oil prices, combined with global export bans and food price hikes, challenged the GCC commitment to safeguarding future food supply chains. This changed in 2011, after oil

prices soared again, enabling the GCC states to use the higher energy revenues to explore regional frameworks for collaboration on food security, and to mitigate future food crises through local sustainable agriculture, storage capacity buildup of a few short months, and better food procurement policies.

The process to obtain GCC food self-sufficiency remained gradual in subsequent years. Since local food production capacity was limited due to water scarcity and desert climates, the bloc's agricultural practices used energy-efficient water desalination plants for improved productivity and quality of products and lesser surface water consumption. In addition, the GCC states introduced other water-efficient agricultural practices and bought more farmland abroad. Farming for commercial purposes, however, meant that GCC dependency on local food production or on food imports was vulnerable to global climate change factors and conflicts. This led to increased GCC investments into modernized farming both locally and abroad. In South and Latin America, for example, GCC investments reached US$4 billion in 2016-2022. The bloc imported meat, cereals, sugar and coffee from Latin America. It also imported oil seeds, fruits, grains, medicinal plants, straw, birds' eggs, and honey, despite commercial and tariff restrictions.

The GCC food investment in Africa and the Americas, having surged as Gulf states aggressively diversified global food supply chains between 2024 and 2026, included the expansion of green fields for agricultural purposes. Run by GCC national sovereign funds and other forms of government investments, the business acquiring agricultural land abroad opened up to private investors from the GCC countries. Notwithstanding cash flow management hurdles, and the challenge of running or leasing the lands, as well as poor land developments and transportation costs, these agricultural investments ensured better prospects for the Gulf region's food security. In the Americas, GCC countries also secured farmland in the United States. For example, Saudi Arabia purchased land in California for food cultivation. The UAE invested in Louis Dreyfus, a leading merchant and food company.

Thanks to some of these early actions to secure food supplies, the GCC was not as hard hit by the global food crisis that resulted from the 2023 war between Russia and Ukraine, and which was preceded by the global pandemic crisis due to the rapid spread of the coronavirus in 2020. Saudi Arabia remained the 44th most food secure country in the world as of 2021, and Qatar the 24th followed by Kuwait, the UAE, Oman and Bahrain. But massive global food price hikes threatened the stability of food supply chains for the most vulnerable communities in the GCC including its migrant labor force. In response, member states introduced initiatives to boost food production at local levels. In the UAE, an innovation district explored prototype agricultural systems to serve as a global destination for FoodTech innovators. The country also led efforts to achieve regional food self-sufficiency by holding a coordination meeting to promote inter-sectoral cooperation among friendly countries in January 2023, and used the Abraham Accords to encourage agricultural cooperation between the GCC and Israel. In April, the UAE reviewed a food security action plan, aiming to reduce climate change and preserve the environment.

In June 2023, a ministerial meeting of the Arab League which includes GCC member states and the Pacific Island States stressed the need for cross-regional cooperation to address food insecurity partly due to conflicts. Since Russia and Ukraine were responsible for the supply of more than half of the world's sunflower seed oil exports, 19% of the world's barley supply, and 14% of the wheat, the war impacted conflict zones in several Arab countries including Yemen and Syria as well as other areas surrounding the GCC. Adjusting for war risk pushed the GCC to purchase bulk supplies of grains and essential oils. By August, the GCC called for the resumption of a grain deal between Russia and Ukraine through the Black Sea, to help deliver food to countries such as Egypt and lessen pressures on the Gulf countries.

The UAE took additional steps to create 20,000 jobs in the agricultural sector, to achieve food security targets which included an investment of an additional US$10 billion into its farming industry. At the 5th Future Food Forum in Dubai in September 2023, it also unveiled localized innovation, fostered UAE-first culture and food supply chains, made the UAE a regulatory powerhouse for food supply systems, and offered farmers resources to turn into global agri-food leaders. The UAE also vowed to train the next generation of farmers in agri-tech industries, to achieve longer-term food sustainability.

But market unease due to the impact of the war between Israel and Hamas which broke out in October 2023 threatened to challenge food supply cycles and pricing once again in the GCC states, a region where by 2026, 30% to 40% of food was annually lost before reaching consumers according to the World Food Organization. Consequently, securing food for all GCC citizens remained a challenge. Harsh climate, vulnerability to natural disasters such as drought or flooding, income inequality and poverty levels also meant that not all citizens or migrant workers in the GCC states could expect to have equal access to nutritious food unless the bloc took food insecurity seriously and altered unhealthy food utilization habits and resulting health issues.

Subsequent increases in inflation rates impacted the more economically vulnerable local communities in the GCC. Global food exports and food transportation and distribution costs led to massive hike in food pricing, posing a burden that GCC countries had to continually address. Sovereign wealth funds were stretched to meet soaring food pricing globally and the quick buildup of strategic reserves to boost local food production capacity. This forced the GCC to explore new food protection mechanisms. Policy steps taken by the GCC states in this period included offering financial exemptions and credits to farmers and agribusinesses, and strengthening state subsidy programs to curb inflation.

The Middle East and North Africa (MENA) Climate Week on October 2023 held in Saudi Arabia focused on providing the region with reliable energy systems, infrastructure development, eco management and health, thereby also helping explore means to generate new employment opportunities in agricultural business in the GCC. By the

end of 2023, the UAE aimed at getting half of its basic food items from local farms, including meat, chicken, eggs, dates, green leaves, tomatoes, and more, 70% by 2025, and 100% by 2030. The country operated a vertical farming facility which would expand into the GCC, helped bring confidence to members' food security strategies. Although the GCC was least affected by the insufficient supply of Russian fertilizers, as agricultural practices remained limited in the Gulf, soil-free hydroponic farming practices that use limited water in the GCC enabled edible plant growth using direct nutrient-rich water without the need for soil fertilizers.

Additionally, in the GCC, where food shortages were a bigger threat than food price inflation, the food basket was expected to reach US $62.25 billion by 2030, despite price hikes. The figure reflected the cost to feed people or entertain them through the food industry. To meet this goal, Qatar and Oman financed startups for local food production projects. Saudi Arabia's futuristic NEOM city on the Red Sea coast aimed to achieve food independence. In addition, the country introduced a longer-term food self-sufficiency program which enabled it to produce all its dates, dairy, poultry and table eggs, and achieve notable self-sufficiency in producing certain crops such as wheat and barley and in cultivating greenhouse vegetables and farmed fishing.

GCC Future Food Security Initiatives

The goal of achieving global food security attracted widespread support from stakeholders and communities from among the estimated 70,000 people in attendance at COP28, translating into the COP28 Food Systems Agenda. The agenda has several initiatives that link food security to climate action for which more than US$2.5 billion was mobilized by various stakeholders, including 130 countries representing over 5.7 billion people around the globe.

By upholding the legally binding international treaty on climate change adopted at COP21, known as the 2015 Paris Climate Agreement, and its first ever Global Stocktake to evaluate progress on climate action goals, COP28 emphasized a pragmatic global energy transition and the importance of obtaining food security, and it celebrated the December 10 Food Agriculture and Water Day. Other side events at COP28 highlighted partnerships for food systems transformation, and linked food security with the gathering's climate agenda of fossil fuel transition and renewables goals. The events also addressed climate adaptability for global food consumers. These consumers include 500 million farmers whose work involves 76% of total emissions affecting climate change from the global food system, and small-scale farmers who produce 70% of the food in developing countries. The climate-food agenda at COP28 further aimed to protect lives and livelihoods including for these farmers, by prioritizing the issue of food security and highlighting the fact that small-scale farmers received a fraction of global climate finance designed for climate adaptability.

Because international conflicts, trade restrictions and price hikes exposed the heavy reliance on food production and imports, and highlighted the dangers of food insecurity, COP28 increased investments in research and development to launch new

food security strategies including in the GCC states. But market fluctuations such as bans on certain food items, and rising energy prices, remained a problem. According to a research conducted by the Rockefeller Foundation, the Global Biodiversity Framework signed by 190 nations and forged at the 2022 United Nations (UN) Biodiversity Conference (COP15) in Montreal, Canada, may have failed to address the scale of global disasters threatening food supply chains, although the November 2022 COP27, held in Egypt, and its review of the Koronivia Joint Work on Agriculture which was also initiated by the UN served as a temporary space for dialog aiming to build relations between food security and climate change, sharpen the food systems agenda, co-create a roadmap for food systems investments and guidance for farmers, and promote interconnectivity.

At COP29, Kuwait aligned its climate-agriculture agenda with the Food and Agriculture for Sustainable Transformation (FAST) initiative and global water preservation efforts to boost international investment, resource management and domestic governance to highlight food safety and nutrition coupled with the Kuwait Vision 2035, under the Public Authority for Food and Nutrition (PAFN) strategy. Oman pursued similar goals under its Vision 2040 agenda, driven by massive investments in agriculture, fisheries and food-processing infrastructure under its National Climate Platform program. Bahrain's food security strategy built on COP29 and COP30 goals to develop a unified GCC regional framework and strategic partnership with the UN Food Agriculture Organization to integrate food systems into Nationally Determined Contributions (NDCs) as a move away from import reliance toward sustainable food growth, water conservation and strategic stockpiling. Like its other GCC counterparts, Bahrain also actively backed the UAE Declaration on Agriculture and Food Systems advanced at COP29 and COP30 by integrating it into GCC National Adaptation Plans (NAPs). Qatar's National Food Security Strategy 2030 focused on arid-climate agricultural expansion with strict sustainability and emission reduction goals, through water-efficient technologies and efforts to minimize agricultural carbon footprint. Saudi Arabia prioritized negotiations at COP29 and COP30 on food systems supply chains and large strategic food reserves. It also advocated for globally integrated food security models resting in part on African breadbaskets and heavy financing, but it did not accept sectoral phase-outs to restrict emissions.

Path Forward for Sustainable Food Production in GCC

COP29 and COP30 offered mixed results on the issue of progress on policy and national commitments for the agri-food industry. Against the backdrop, the closure of the Strait of Hormuz by Iran in 2026 compromised the prospects of long-term food security in the GCC despite diversified port infrastructures in a region where more than 85% of food is imported, resulting also in higher cost of food and local food production. Saudi Arabia, with a substantial strategic food reserve, could survive the blockade for 2-4 months, bringing to the fore the fact that some 36 million people residing in the country and larger numbers in the GCC remained food vulnerable during a major international crisis.

Promoting sustainable agriculture through research and development, and searching for resources to boost local food production can therefore not only help create jobs in the GCC, but also expand GCC economies, and reduce external dependency on sources of food.

To reach these goals, COP28 called on governments to ensure food systems, as part of its ongoing Action Agenda. The agenda calls for the rapid introduction of initiatives across food supply systems mindful of the challenges of climate change. Other COP28 flagship initiatives promote regenerative agriculture, a conservation and rehabilitation approach for farming in large food landscapes by boosting food procurement and investments through the United Nations Climate Change High Level Champions, the World Business Council for Sustainable Development (WBCSD), and the Boston Consulting Group (BCG).

The UAE Minister of Climate Change and Environment and COP28 food security leader Her Excellency Mariam Bint Mohammed Almheiri also called on governments to sign a first Leadership Declaration on Food systems during the 2023 Rome Food Systems Summit, to align national food and agricultural strategies with Nationally Determined Contributions (a non-binding climate change mitigation plan), National Adaptation Plans (to identify long-term climate adaptation needs) and National Biodiversity Strategies and Action Plans.

A notable achievement at COP28 was the UAE Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action. The declaration recognized the "unprecedented adverse climate impacts" that threaten food sources, as well as the potential of food systems to be powerful drivers for global prosperity. It noted the role of international and multi-stakeholder cooperation to obtain food security, including through South-South and Triangular cooperation involving countries, international organizations, civil society, private sector, and private philanthropy. Finally, the declaration reaffirmed the importance of funding and financial institutions to reach its goals.

The Intergovernmental Panel on Climate Change (IPCC) which provides scientific assessments to policymakers stressed the need for technological dialog to address future risks, and the COP28 declaration stressed the relevance of agriculture and food systems in this dialog. With 159 signatory states, the declaration highlighted global experience sharing for next steps mindful of seven years to achieve shared goals to offer equitable trading system through the World Trade Organization, accelerated science and evidence-based innovations, scaled up finance, public policy support to build food resilience, and broad engagement to integrate food systems into country-level national goals and other related strategies before the convening of COP30 in Brazil in November 2025.

The COP28 Declaration requires support for farmers involved in the food industry, a goal advanced in COP29 and COP30 to advance farmer-focused climate action through at least US$1.3 trillion annual finance by 2035, integrated management of

water and food systems, soil health enhancement, and a host of other steps to reduce food loss and promote aquatic blue foods such as animals, plants and algae harvested from freshwater and marine environments. Nutrition based food for vulnerable communities, and better infrastructure and capacity building to restore nature are also needed. This means that agriculture and food systems must adapt to the imperatives of climate change. This food security challenge also encourages efforts to work collaboratively to seek sustainable solutions, including in the form of agricultural innovation across the GCC, while also remaining mindful of the need to address harmful emissions due to expanding agricultural business. Agricultural technologies offer new solutions to identifying the most sustainable and secure food production cultivation methods, using artificial intelligence and other technologies which GCC countries are obtaining at a rapid pace. COP29 and COP30 worked on food systems as thematic areas, at a critical juncture of multilateralism to reignite global food collaboration in the midst of climate change and conflicts including those impacting GCC economies, resulting in new Nationally Determined Contributions (NDCs) to reduce emissions and integrate economies for food security.

The COP28 food security goals, compounded by COP29 and COP30 scaling up adaptation funding for protecting global food systems, involve setting new policy standards. Some standards are already outlined in the food policy of the GCC national development vision plans, in line with the United Nations Sustainable Development Goals, the 2020 G20 Declaration of Riyadh, and the 2023 32nd Arab League Summit in Jeddah. By 2026, for example, Saudi Arabia reduced food loss and waste, expanded animal husbandry, promoted AgTech Ecosystems, expanded production and harvest in its deserts, to become a food security leader.

The operation of desert farmhouses is another important theme when it comes to carving out the future of food security in the GCC states. Desert farmhouses, including one near Abu Dhabi, introduces pioneering technologies for commercial farming. In the Red Sea, Ag Tech promotion of commercial farming in hot environments ensures more sustainability for food production, through roots to roof technologies currently used in the GCC, low-cost roofing for food production purposes, climate-controlled recirculating deep water culture systems that help grow fruits such as berries, and saltwater evaporative cooling system without desalination, as well as remote greenhouse management.

The expansion of agricultural ties with the United States and India, including through 12U2 – a grouping of India, Israel, the US and UAE and launched in 2021 – and the UAE joining along with the US the Agri Innovation Mission for Climate or AIM for Climate, seeking to address climate change and global hunger, will empower the GCC bloc to take the lead in working with the Global South and the West to secure future food supply chains. AT COP29, the UAE accelerated action to co-create climate-resilient food structures to meet future needs, partly through water resiliency programs, championing finance, and promoting global collaboration.

Additionally, a new partnership between the UAE and the Bill and Melinda Gates Foundation for Food Systems, Agriculture Innovation and Climate Actions, focuses on agricultural research and innovations as well as funding technical assistance for the COP28 Declaration. The UAE will also join CGIAR, a global partnership of international organizations engaged in food security research, resilience and climate adaptation. A joint event by the Bill and Melinda Gates Foundation and the UAE Ministry of Climate Change and Environment consisted of three panels focused on support for CGIAR tech solutions for small-scale farmers as the body attracted US$375 million in pledges and funds from the US and the Netherlands, US$1.5 billion in grants from the World Bank along with another US$100 million from the bank over two years.

The technical aspects of cooperation at COP28 focus on supporting countries collaboratively to deliver on the goals of the COP28 Declaration, with partners backing the Technical Cooperation Collaborative by pledging more than US$200 million. The Action Agenda on Regenerative Landscapes received backing from COP28 and the WBCSD and BCG, as well as from the UN Climate Change High-Level Champions, leading to the transition of 160 million hectares of land to regenerative agriculture by 2030, along with future investments of US$2.2. billion and the involvement of 3.6 million farmers. COP30, despite a weak outcome to ensure nature-based solutions, promised to transform food security by strengthening climate-impacted climates, highlighting climate resilience for improved local food production in regions including the GCC.

Looking forward, these investment initiatives are promising for the GCC which will have to overcome the pending challenges of conflicts and a possible global recession on the horizon, by utilizing all available funding sources and procurement and production patterns in order to become food reliant, secure food imports, and inform consumers about food options that boost public adaptability to food challenges. Food security innovation is now a GCC mission as is the diversification of global food supplies, and COP31 is expected to offer opportunities for regional food security initiatives based on informed consultations taking place in 2026 to advance the Global Implementation Accelerator, especially in light of the impact of the recent Middle East war on food systems in the GCC.