

Climate change is a driver of food insecurity for the Middle East, where both the global shock and the local shock matter.

David Laborde
Director of FAO's Agrifood Economics and Policy Division



Spotlight **GREEN & BLUE**

WORLD HUNGER

Climate and the kitchen

Global warming is exacerbating food insecurity, with major consequences for the Middle East

Nada Alturki Riyadh

Global food insecurity is far worse than previously thought. That is the conclusion of the State of Food Security and Nutrition in the World 2024 report published this week by a coalition of UN entities.

As countries fall short of achieving the second UN Sustainable Development Goal of “zero hunger” by 2030, the report notes that climate change is a pivotal factor exacerbating hunger and food insecurity.

As a major food importer, the Middle East is considered especially vulnerable.

“Climate change is a driver of food insecurity for the Middle East, where both the global shock and the local shock matter,” David Laborde, director of the Agrifood Economics and Policy Division at the Food and Agriculture Organization of the UN, told Arab News.

“Now, especially for the

Middle East, I think that the global angle is important because the Middle East is importing a lot of food. Even if you don't have a (climate) shock at home, if you don't have a drought or flood at home — if it's happened in Pakistan, if it's happened in India, if it's happened in Canada — the Middle East will feel it.”

In addition to climate change, the report found that factors like conflict and economic

downturns are becoming increasingly frequent and severe, impacting the affordability of a healthy diet.

“There is also an indirect effect that we should not neglect — how climate shock interacts with conflict,” said Laborde.

In North Africa, for example, climate shocks can lead to more conflict, “either because people start to compete for natural resources, access to water, or just because you may also have some

DID YOU KNOW?

1 Up to 757 million people endured hunger in 2023 — the equivalent of one in 11 worldwide and one in five in Africa.

2 Global prevalence of food insecurity has remained unchanged for three consecutive years, despite progress in Latin America.

3 There has been some improvement in the global prevalence of stunting and wasting among children under five.

people in your area that have nothing else to do,” he said.

In late 2021, G20 countries pledged to take \$100 billion worth of unused Special Drawing Rights and allocate them to middle- and low-income countries.

Since then, however, this pledged amount has fallen \$13 billion short. Saudi Arabia is one of the countries that has exceeded its 20 percent pledge.

“Saudi Arabia is a very large state in the Middle East, so what they do is important, but also they have a financial capacity that many other countries don't,” said Laborde.

“It can be through their SDRs. It can also be through their sovereign fund because where you invest matters and how you invest matters to make the world more sustainable.”

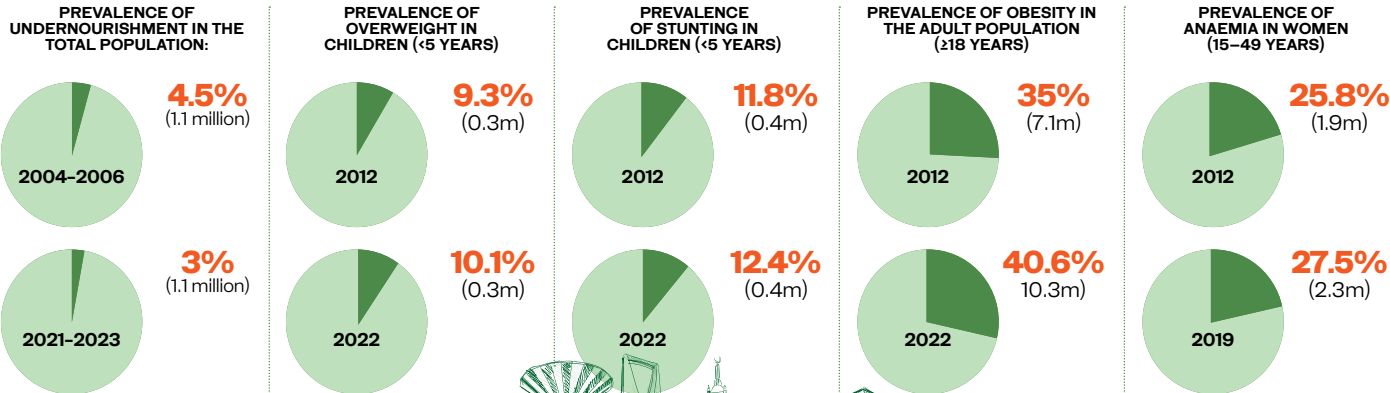
Although the prevalence of undernourishment in Saudi Arabia has fallen in recent years, the report shows that the rate of stunting in children has actually increased by 1.4 percent in the past 10 years.

There has also been an increase in the rates of overweight children, obesity, and anemia in women as the population continues to grow.

“Saudi Arabia is a good example where I would say traditional hunger and the lack of food ... become less and less a problem, but other forms of malnutrition become actually what is important,” said Laborde.

He says proper investment in nutritional education and policy adaptation may be the way to go.

THE STATE OF FOOD SECURITY AND NUTRITION IN SAUDI ARABIA



Solving food insecurity with innovation and partnerships

JUAN CARLOS MOTAMAYOR

Food security is an urgent global challenge, amplified by supply-chain disruptions and climate change. In water-scarce regions like Saudi Arabia, the issue is increasingly relevant. However, with challenges come opportunities for innovation.

Pioneering solutions implemented at NEOM — the smart city taking shape on Saudi Arabia's northwestern coastline — will help transform how we produce, supply, and consume food in the world's driest regions.

At Topian, the NEOM food company, we are innovating to address food security, envisioning a future where sustainably produced food improves nutrition, benefits the planet, and contributes to the economy.

Scaling technologies that are not yet mainstream in the Kingdom can only be achieved collectively. This is why we have focused on partnering with companies that are able to transfer the required innovations.

In agriculture, our ongoing pilots include soil-amendment technologies, a combination of water-saving interventions, and controlled environment agriculture systems.

We are developing and promoting environmentally friendly agricultural practices and identifying the most economically viable crops and varieties for local production.

At the same time, we are piloting multiple controlled environment infrastructure combinations to scale up production at NEOM in the most water-efficient and



Juan Carlos Motamayor is CEO of the NEOM food company Topian, and has advised governments and organizations on agriculture, aquaculture, and sustainable business development.

energy-efficient ways possible.

In aquaculture, collaborations with industry leaders like Pure Salmon and the National Aquaculture Group are advancing pioneering regenerative-aquacultural practices.

Technologies like recirculating aquaculture systems have proved to reduce water consumption and increase production while minimizing negative environmental impacts.

Through the establishment of Topian Aquaculture, a joint venture with Tabuk Fisheries Company, we are investing in technology to increase output, supporting the National Livestock and Fisheries Development Program's goal of producing 600,000 tonnes of fish products annually by 2030.

In novel foods, we are advancing the adoption of alternative proteins, including plant-based and cell-cultured. Through partnerships with leading companies in cell-cultured seafood, such as BlueNalu, we are accelerating the path toward commercialization of low-impact food products.

The global market for alternative proteins is expected to reach \$20 billion by 2030.

This is great news, as alternative proteins will reduce reliance on traditional livestock farming, a major source of green-house emissions.

Innovation is the key to addressing food security. By embracing innovation and fostering collaboration, Topian aims to ensure that food security is a tangible reality, nourishing present and future generations.