



# Can Agricultural Innovations Help the UAE With Biofuel?

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The UAE is attempting to improve its food security situation and diversify its energy portfolio in a single stroke, through pursuing agricultural innovations and modern technology. At present, the country imports the vast majority of its food produce from various locations around the world, but has set its sights on bolstering its own capacity to grow enough crops to feed its populace in the coming decades.

One of the most promising projects in the pipeline is the Seawater Energy and Agriculture System (SEAS), which aims to simultaneously support the agriculture, aquaculture, aviation and oil refining industries in one fell swoop. By using saltwater from the sea to cultivate salt-resistant crops used in biofuel, it can make use of existing resources to help a number of sectors at the same time.

## A SEAS change

With concerns about climate change at an all-time high, it's likely that [the outcomes decided upon at the ongoing COP26 will affect the oil industry](#), upon which the UAE depends for much of its revenue. At the same time, the country also suffers from the sweltering climate and arid terrain found throughout much of its territory, meaning that crop cultivation is a tricky business. As a result, more than 90% of food consumed in the UAE is imported from other countries.

The SEAS initiative aims to change all that. The project will stimulate the cultivation of seafood stocks in the surrounding waters, as well as target salt-resistant crops that can withstand the harsh conditions and saltwater resources in the UAE. Although not fit for human consumption, the crops can serve perfectly well as biofuel for aviation purposes, meaning that a variety of sectors will receive a boost from a single venture.

## Other irons in the fire

Meanwhile, the UAE is also investigating a number of other agricultural technology (or AgTech) projects, as well. Concepts such as vertical farming, closed-environment farms and greenhouses are being explored as a means of circumventing the difficult climate that the UAE experiences year-round, which would help contribute to its food security and enhance its sustainable credentials. Such systems would be deployed for growing fruit and vegetables as well as cultivating aquaculture produce, too.



What's more, investing in these areas will not only bolster the country's ability to feed itself, but also give the economy a much-needed fillip. By creating employment opportunities and enhancing GDP, the UAE can safeguard itself against potential global developments in an uncertain future and increase stability in the country, all of which are key drivers of peace and security.

## **AIMing higher**

Meanwhile, the UAE's integral role in the creation of the Agricultural Innovation Mission for Climate (AIM for Climate) is further proof of the forward-thinking principles at the heart of the government's agenda. The AIM for Climate initiative was jointly announced by the UAE and the USA at President Joe Biden's Leaders' Summit on Climate earlier this year.

At its core, the initiative purports to improve food security, achieve climate objectives and facilitate attainment of the UN's Sustainable Development Goals (SDGs) for countries around the globe. Part of that remit includes substantial investment into the research and development of AgTech, including into concepts and projects such as those listed above.