

Food Security in UAE

Introduction

Food security is perhaps one of the most fundamental and central aspects in society that can boost or detract from the nation's quality of life as well as larger factors of the country's economy and politics. Given this, this paper will focus on the many ways to insure food security in United Arab Emirates (UAE). To do so, we must understand how the phenomena is perceived and measured by providing case studies and applying these lessons and solutions to the UAE.

Definition and Significance

Creating a unified national policy in regards to food security can bolster the country overall, ensuring consistency. The United Nations' Committee on World Food Security defined food security as occurring when "all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life." ("Food Security", 2019 1). As such, in order to achieve food security, the country must think holistically about the many aspects of their citizens' lives that overlap with economic and political activity. In considering the many aspects of food security, measurements and factors that render a community food insecure are essential. In its most basic form, food security is having "reliable access to a sufficient quantity of affordable and nutritious foods." ("Definitions", 2018). However, this definition is much more complex than this simplified definition. Food security has become the focus of many experts seeking to better-understand larger global phenomena, such as poverty, malnutrition, climate change, and instability. Therefore, in order to achieve food security, states and non-governmental organizations (NGOs) should implement federal plans to lift standards of living and support programs across the country.

Measurement and Benchmarks

First, the World Health Organization (WHO) has emphasized that food insecurity is comprised of three pillars: food availability, food access, and food use and misuse. (WHO) Adding to this, the Food and Agriculture Organization (FAO) of the UN has argued that time also plays a critical role in determining whether individual or community is food insecure as having availability, access, and use must be continuous. (FAO). Finally, the World Summit on Food Security further contributed to this definition, arguing that stability is an essential fourth pillar to understanding food insecurity.

In better-understanding food security today, the Global Food Security Index (GFSI) has developed a quantitative and qualitative benchmarking system wherein they can measure affordability, availability, and quality around the world. This system serves as a tool for investors as well as for planning and strategizing. The 2018 GFSI Findings rank Singapore as the most food secure country in the world, with a score of 85.9/100 with Ireland ranking as second. Singapore boasts a high-income economy with a rapidly rising GDP per capita. Assisting with its high ranking is a low proportion of income spent on foods as well as the least agricultural import tariffs being charged of any country in the world (Smith, et al, 2018).

In the United Arab Emirates, food security has taken on a high priority for the national government. The country currently ranks in the 31st position in the GFSI table, holding the spot close to many other Middle Eastern countries, such as Oman and Saudi Arabia. Nevertheless, UAE continues to foster grand plans for moving up in their rankings as well as improving their long-term thinking about food security. In a policy briefing given to the Mohammed bin Rashid Al Maktoum Global Initiatives, Fischbach (2018) outlines how the UAE plans to think creatively about food security. He writes that “as a desert country, lacking in water and arable land, the UAE is facing considerable food security challenges.” (ii) In order to produce these solutions, the UAE could adopt further use of hydroponic and indoor facilities for growing foods. However, he goes on to assert that the country plans to focus on expanding its holistic and long-term approach by both fostering regional partnerships of trade and also

incorporating models dealing with climate change into their planning. Instead of ignoring these future conditions, the UAE plans to brace for the impact of warming. In this way, they aspire to improve their situation.

Recommendation to secure food security in the UAE

Based on the three pillars defined by WHO are food availability, food access, and food use and misuse. These pillars are affected by the end-to-end value chain of food, from agricultural aspect to logistics and consumer behavior. Therefore, they should be related and addressed systematically to their sources and drivers. The government role is vital to insure a sustainable future to food security by developing regulations and awareness campaigns to govern and promote food security. The development and encouragement of new innovative means to grow and produce foods and diversify to more sustainable sources of nutrition. The recommendation in this paper will touch on all factors.

First of all, regulations should be put in place and promoted to bring the private sector and government in terms of crisis. A framework to combine all resources from food suppliers, food logistics and food retailers together to insure smooth and systematic mobilization to their resources for the benefit of the country's citizens. One interesting example where this has occurred is to the top GFSI ranking country: Singapore. In Singapore, during times of food crisis, policy exists that protects the country from slipping into food insecurity. This law mandates that food distributors who operate on a wholesale basis must surrender their products to the national government in order to redistribute this food to citizens in-need. This creative solution allows for preparation in times of crisis. Furthermore, a law should be introduced to mandate households to store food that can sustain the number of occupying the household for 6 to 8 months by storing canned foods and easily stored food in order to meet the measures of food security. Rice, beans, and wheats have some of the longest storage times, rendering them extremely useful for combatting food insecurity. For example, rice can be stored for upwards of twelve months to fifteen months.

Second, creating awareness and subsidizing training, equipment and supplies to support initiatives that contribute to food security. The UAE must strive to prepare for food insecurity by engaging in awareness campaigns and public service announcements. This can take the form of communicating what comprises a nutritious diet through education programs in school to building public support for initiatives that foster better food-security. For example, some countries utilize annual events to gather support for food security, organizations host annual conferences, such as the annual Food Justice conference in California or the National Farm to Cafeteria Conference in Vermont, welcoming practitioners and the public to discuss strategies for solving food insecurity as well as new problems that arise.

Another way to engage the public is through competitions that focus on food security. As one example, the Food+City Startup Challenge encourages organizations to come up with innovative plans to combat food insecurity. Participants include food distributors, those working in technology or data systems, and those focusing on sustainability (“Food+City”). There are other, more localized competitions, such as canned food drives that pit rivaling universities against one-another in gathering the most canned food for donations to soup kitchens and other organizations that feed those in need. As such, this is one successful avenue for addressing food security on a local and a national level.

Thirds, there are also new forms of eating that have become popularized due to their ability to solve food security problems in a sustainable manner. One example of this is the new focus on insect farming. Because insects are in abundance in most environments around the world, they are a potentially untapped resource. The ease with which potential farmers could build populations of insects, due to their high birth rates, in a sustainable manner holds enormous potential for assisting food insecure communities. Insects, due to their size and their life habits, also require few resources for productions, whereas producing beef and other meats can be extremely expensive and taxing on the environment (Ilyashov, 2018). Silk worms, scorpions, hornets and wasps, pupae, and locusts are just a few examples of the protein-rich organisms that could change food security for the better. Furthermore, investing R&D in

more futuristic forms of eating such as meat lab. Meats developed in laboratories might soon be the most sufficient and sustainable way to consume meats whether it is beef, pork, poultry and seafood. A collaboration between government, business communities and universities should be directed towards advancing the nation into these fields.

Forth, Awareness campaigns in regards to circular economy can also reach individuals to teach them to better utilize the food that they do have, decreasing misuse. For example, in the United States, approximately 37.6 million tons of food was wasted in 2015 alone (“Reducing”). Given these statistics, it is clear that campaigns should more closely address the food that exists in certain societies, making use of what is in circulation. Additionally, food that is spoiled should also be used to then make compost for soil. These nutrient-rich soils can be used to grow food indoors or small-scale farms. As such, campaigns should address composting as another way to retain food and decrease waste. Also, as wasted food can also be used to feed livestock, it should be used to help decrease food waste in the production of meat.

Lastly, other solutions could more closely address farmers or potential farmers through subsidizing training courses as well as the equipment and supplies necessary for new farming techniques. Even urban farming holds great potential for combatting food insecurity, but these communities require trainings. By passing on information about roof-top gardening schemes, bee-keeping, hydroponics and other methods for small-scale farming, food insecurity could be further reduced (Altieri, 2019). Additionally, by using policy interventions to directly subsidize equipment, seeds, and even land purchases for farmers, countries could more easily fight food insecurity.

In conclusion, the key to food security is to diversify the food sources innovatively whether from production, importing and consuming. The UAE should spur the GFSI ranking by addressing legislations, awareness campaigns, technology and new food and nutrition sources. The recommendations presented in this paper if implemented properly could advance the ranking of the country from 31st to the top 10 within a couple of years. Given that most of the recommendations are benchmarked from the leading countries on the GFSI ranking.

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