

Aiden Bey  
Tuskegee University

## **The Global Challenge: Egyptian Solutions**

### **Current Egypt**

Every country faces its own set of challenges, shaped by geography, history, and society. In Egypt, the balance between people and resources has become an increasingly urgent concern. As the population continues to grow, so do the pressures on the systems that sustain daily life. Egypt constantly faces a water scarcity that drains water in most parts of Egypt. Among the most pressing of these are the challenges related to food or how to produce enough, how to produce it fairly, and how to secure it for others. This essay explores the population and food challenges facing Egypt today, and offers potential solutions that aim to create a more stable and sustainable path forward and create solutions that could help Egypt and end water scarcity.

Egypt's population is estimated to be around 108 million people as of 2025, making it one of the most populous countries in Africa and the Middle East (Central Agency for Public Mobilization and Statistics). 95% of the population is concentrated in a narrow strip of fertile land along the Nile river, while the rest of the country is largely desert. This means that Egypt has one of the highest population densities in the world when you consider only the livable areas.

According to the World Food Programme, approximately 15.4 million Egyptians - about 14.4% of the population - are currently food insecure (World Food Programme, "Egypt"). This number represents more people than the entire population of many countries. The situation is particularly difficult for children, with 21% suffering from stunting due to chronic malnutrition (UNICEF, "Nutrition").

Approximately in Egypt there is stated to be more than 56% of the population that resides in rural areas, but 44% of the population lives in the urban areas of Egypt. Egypt has a semi-presidential republic system of government that tries to manage these challenges, but the country faces significant economic pressures. The government spends over \$4 billion annually. But this massive spending puts strain on the national budget and doesn't solve the problems.

The average household size in Egypt is 3.45 members, and there are approximately 23.8 million households across the country, representing a 1.36% increase compared to previous years. While Egypt is still able to grow food and maintain a peaceful society, the population continues to grow faster than the country's ability to produce food and create jobs.

## Root of Food Insecurity

Egypt has faced many more problems over the years. To understand Egypt's current food crisis, we need to look back at key events that shaped the situation. The most important turning point was the 2007-2008 global food crisis, when food prices skyrocketed around the world. In Egypt, this led to deadly bread riots that killed at least 11 people and forced the government to dramatically expand food subsidies to prevent further unrest (Wikipedia, "2007–2008 world food price crisis").

Global events have contributed to the devaluation of the Egyptian pound. It has also lost much of its value, dropping from 31 pounds per US dollar to over 50 pounds per dollar between 2022 and 2024 (Trendtype). This currency devaluation made all imported food much more expensive for Egyptian families. The war between Russia and Ukraine contributed to a rise in everyday food prices and shortages in Egypt. It hit Egypt particularly hard because these two countries supplied about 85% of Egypt's wheat imports (Sustainable Agricultural Trade). Egypt had to quickly find new suppliers in France, Romania, and India.

Then recently, the Israel-Hamas crisis also caused further decline in the tourism industry. Due to the lack of foreign currency, the International Monetary Fund and Egypt agreed to term a \$3 billion dollar loan program that might end up having its own increase in daily prices. Human rights also concern including the certain restrictions of freedom of expression and assembly, which are also prominent. Gender based violence and discrimination is also a problem where women face high rates of gender based violence, and discrimination against women, LGBT+ people, and other groups persists.

Climate change and water scarcity have a very large and chaotic impact on Egypt. Egypt is warming faster than most of the world, with temperatures rising by 0.53°C per decade, which is much higher than the global average (FAO, "Egypt Country Programming Framework"). The country has already warmed by 1.5°C compared to pre-industrial times.

Egypt receives only about 33.3 millimeters of rainfall per year on average - and this has decreased by 22% over the past 30 years (U.S. International Trade Administration). Most of Egypt's agriculture depends entirely on water from the Nile River, so when climate change affects the river or makes temperatures too hot for crops, it directly hurts food production. The water issue is critical. Egypt's per capita water availability has dropped dramatically from 1,972 cubic meters per person per year in 1970 to just 570 cubic meters in 2018 (Wikipedia, "Water supply and sanitation in Egypt"). The United Nations defines absolute water scarcity as less than 500 cubic meters per person per year, so Egypt is approaching this limit. There is also concern about the threat of sea level rise to the Nile, which produces about 60% of Egypt's food. Scientists estimate that 1,500-2,600 square kilometers agricultural land can be lost to rising seas by 2100, affecting 6.3 million people and causing economic losses of about \$5 billion (U.S. International Trade Administration).

This drastic climate change and water scarcity also affect Egypt's food security because the food prices start to rise and become more and more expensive. This causes significant economic vulnerabilities, devaluation, and high import costs.

Egypt is also suffering an Environmental Degradation which is the Pollution from industrial activities, waste management issues, and a plastic water pose. Egypt is also struggling because their foreign debt has reached a very substantial level, which puts a lot of pressure on its economy.

## **Egypt Solutions**

There are also multiple solutions that could deflect or diffuse the problem. A solution that I think that could help us diffuse the problem is to secure more Financial Support because other financial assistance from other international parts of the world like the World Bank or the Gulf countries can help bridge financing gaps and development projects. Egypt has begun receiving substantial international support that shows promise. The World Bank provided 500 million in 2022 specifically for emergency food security, helping to buy wheat for 70 million low-income Egyptians while also supporting infrastructure improvements. (WorldBank, "US 500 Million Project").

Egypt has received multiple International Monetary Fund agreements totaling \$23 billion since 2016 (\$12 billion in 2016, \$3 billion in 2022, and \$8 billion in 2024) to support economic reforms and food security measures (Foundation for Defense of Democracies). This solution gives Egypt support to help out of their debt and help decrease the prices for their food, and materials that could either provide them with more and more water or deflect and push back the water scarcity.

Another solution that could be able to help is to invest in Education and skills development because aligning the education system with the needs of the modern labor market, and investing in initiatives to improve employability, particular for the youth of the country, are essential for more job creations and a raising living standard for all of the people in Egypt. USAID's \$36.3 million Feed the Future program has already trained 34,019 individuals across 17 governorates in improved farming techniques (Social Protection). Using this method could also teach the youth how to grow and produce food for the country that could feed everyone, and it can also inform the youth about the problem and help Egypt get more and more support which gives them an advantage. By promoting financial inclusion, it can expand the access for financing for small businesses in Egypt. This could also help other citizens in Egypt start to get more jobs, and also boost others to become farmers and produce more food for the country. This then creates more food for the certain populations that are running out of food to eat in the country and increases the supply of food in Egypt as a whole.

Another solution that the people of Egypt tried to use was sustainable water management, which is a method that implements ambitious water management regulations and investing in sustainable water management practices that can help address the water scarcity and droughts. The World Bank has already provided \$60 million for irrigation modernization projects that reach 197,633 water users with improved techniques and training. Egypt is also investing heavily in desalination, with \$3 billion allocated for the first phase of projects targeting 9 million cubic meters per day of desalination capacity by 2050 (Egyptian Streets). This solution

can also help restore the water for the people of Egypt to drink and to be able to grow food. Improving waste management is also another way to solve this devastating problem.

Improving their waste collection efficiently, or promoting recycling and more energy recovering and expanding wastewater treatment can expand and be able to contribute to a circular urban economy and greenhouse gases. Refusing all of the wastewater which is the poisoned or polluted water that makes others sick, can create more cleaner water for the country to use to drink or grow their own food themselves. As a result, using this method can reduce all of the loss and waste, which then conserves resources and increases more accessible food. So this method in return can create more food for Egypt that can result in the decrease of their food prices. This method can also significantly alleviate the water scarcity in Egypt. By reducing the water pollution and enabling the safe reuse of all of the wastewater in Egypt can heavily reduce the water scarcity.

Using Targeted Support for Vulnerable populations in Egypt can also be a very helpful solution. Implementing more social protection programs and ensuring targeted fiscal support for those most in need in other parts of Egypt. Egypt currently invests \$110 million annually in school feeding programs that reach 12.5 million pupils (Social Protection). These programs ensure children get at least one nutritious meal per day while also encouraging school attendance.

## **Conclusion**

Egypt faces serious food security challenges that come from rapid population growth, limited water resources, climate change impacts, and economic pressures. The country is not helpless in the face of these problems. Successful programs in Egypt and around the world demonstrate that comprehensive solutions can work when properly implemented and supported. Egypt is a country that can be saved by following these solutions. If they continue to follow these outlined solutions they could work as a community to help diffuse or supply Egypt with more food and materials.

Ast Norman Borlaug, winner of the Nobel Peace Prize for his work fighting hunger, once said, "food security is essential for peace and stability". Egypt's success in beating its food challenges will contribute to Egyptian, and create a more peaceful and stable world for everyone.

As the great Mafeesh 7alaawah once said " There is no desert without a fire, and every problem has a solution".

Stay safe and may god bless Egypt.

## Works Cited

Helgi Library. <http://HelgiLibrary.com>

"Statista - The Statistics Portal." *Statista*, <http://Statista.com>

Food and Agriculture Organization of the United Nations. "Egypt Country Programming Framework 2023-2027." FAO, 2023.

Foundation for Defense of Democracies. "Struggling with Inflation, Egypt to Get Infusion of Funds from IMF." *Policy Brief*, 2 Jan. 2025.

[https://www.fdd.org/analysis/policy\\_briefs/2025/01/02/struggling-with-inflation-egypt-to-get-infusion-of-funds-from-imf/](https://www.fdd.org/analysis/policy_briefs/2025/01/02/struggling-with-inflation-egypt-to-get-infusion-of-funds-from-imf/)

History Rise. "The 2011 Egyptian Revolution: Arab Spring, Causes, And Consequences." 2024.

<https://historyrise.com/the-2011-egyptian-revolution-arab-spring-and-political-upheaval/>

Smart Water Magazine. "Egypt to build 19 new desalination facilities by 2022." *Smart Water*, 2022.

<https://smartwatermagazine.com/news/smart-water-magazine/egypt-build-19-new-desalination-facilities-2022>

Social Protection. "WFP School Meals Factsheet Egypt Country Office." 2024.

<https://socialprotection.org/discover/publications/wfp-school-meals-factsheet-egypt-country-office>

Sustainable Agricultural Trade. "Continued high food inflation a result of Egypt's failed food security policy." 2024.

<https://sustainable-agri-trade.eu/continued-high-food-inflation-a-result-of-egypts-failed-food-security-policy/>

The Borgen Project. "Egypt's Food System: A Possible Shift in Subsidies for 2025." 2024.

<https://borgenproject.org/egypts-food-system/>

Trading Economics. "Egypt Food Inflation." 2025. <https://tradingeconomics.com/egypt/food-inflation>

Trendtype. "Egypt devalues its currency and confirms an \$8bn IMF support package." 2024.

<https://trendtype.com/insights/egypt-devalues-its-currency-and-confirms-an-8bn-imf-support-package/>

United Nations Children's Fund. "Nutrition." *UNICEF Egypt*, 2024. <https://www.unicef.org/egypt/nutrition>

U.S. International Trade Administration. "Egypt - Water and Environment." *Country Commercial Guides*, 2024. <https://www.trade.gov/country-commercial-guides/egypt-water-and-environment>

Wikipedia. "2007–2008 world food price crisis." 2024.

[https://en.wikipedia.org/wiki/2007%E2%80%932008\\_world\\_food\\_price\\_crisis](https://en.wikipedia.org/wiki/2007%E2%80%932008_world_food_price_crisis)

Wikipedia. "Water supply and sanitation in Egypt." 2024.

[https://en.wikipedia.org/wiki/Water\\_supply\\_and\\_sanitation\\_in\\_Egypt](https://en.wikipedia.org/wiki/Water_supply_and_sanitation_in_Egypt)

World Bank Group. "MENA Has a Food Security Problem, But There Are Ways to Address It." *Opinion*, 24 Sept. 2021.

<https://www.worldbank.org/en/news/opinion/2021/09/24/mena-has-a-food-security-problem-but-there-are-ways-to-address-it>

World Bank Group. "US\$ 500 Million Project Will Help to Strengthen Egypt's Food and Nutrition Security." *Press Release*, 28 June 2022.

<https://www.worldbank.org/en/news/press-release/2022/06/28/us-500-million-project-will-help-to-strengthen-egypt-food-and-nutrition-security>