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Yemen, Malnutrition

Suffocating under the Shadow of Food Waste: Yemen's Battle with Malnutrition

Introduction

“Mom, I’m full. It’s too much for me. I am going to throw it away.” There is no doubt that this is a common phrase uttered by children in many households, particularly in many nations in the global north of the world. Children tend to waste food after they eat without thinking about the major consequences it could cause to the world population. Many children in poorer countries such as Yemen do not even get a chance to taste a sliver of bread. In wealthy countries, food is taken for granted mainly by children, whereas, in poverty-stricken countries, the right to eat is a matter of life or death. The complex issue of malnutrition in Yemen is due to a confluence of factors including ongoing civil war, economic collapse, disrupted food distribution, and rising food prices, which have resulted in food insecurity, making it strenuous for many families to afford adequate nutrition, resulting in increased malnutrition rates.

In Yemen, malnutrition has been a major issue that has harmed the nation's economy, health, and well-being. Specifically, Yemen's population is approximately 31 million, with 39.2% of the population living in urban areas while the remaining part of Yemen is rural with 61.4% (Central Intelligence Agency, 2023). Between January and May 2022, food insecurity is expected to increase by over 1 million to 17.4 million (CIA, 2023). According to Landlinks, it states, “34% of Yemen’s land is classified as agricultural, but the vast majority of this land is pasture and range land,” (2010). This is evident because it describes how Yemen’s land is of poor quality overall. While Yemen's top exports to China traditionally consisted of natural resources like crude petroleum and gold, the country has also successfully diversified its agricultural sector. In recent years, Yemen's growing truck farming industry has led to a wider variety of vegetables being brought to the market. This newfound success in the agricultural sector serves as an alternative source of income for Yemen, reducing its dependence on traditional exports and contributing to the country's economic growth (Crop Trust. (n.d.).

Political Landscape

Located on the southern tip of the Middle East, Yemen is governed under a liberal parliamentary democracy and is considered an Islamic sovereign country. The Houthi movement rose to popularity in the 1990s and gained momentum, especially in areas like Sanaa which is another suffering city in Yemen. Today, the Houthi movement is still a major force in Yemen's complicated political scene because of its military hostilities and evoking wars with other nations. Yemeni families endure rates of malnourishment increasing by 2.5% each year due to wars and conflicts affecting the country as a whole (Mona Relief and Development, 2022). However, the Yemeni government has made fighting malnutrition a top priority. The Yemeni government has partnered with the United Nations Children's Fund to provide malnutrition services to children and mothers across the country (UNICEF, 2022). UNICEF demonstrates the Yemeni

government's dedication to reducing malnutrition amid the challenges presented by the Houthi movement. The former members are chosen by universal adult suffrage every six years, while the president chooses the latter (Britannica, 2022).

Economy

Families in many underdeveloped countries face a myriad of challenges, including financial problems, illiteracy, and extreme poverty, all contributing to malnourishment in Yemenis. A typical Yemeni family would live with their extended family, either in the same house or nearby. According to the American Field Service United States of America (AFS-USA), large families (7+) are preferred in rural areas. In a typical family, aunts, uncles, and grandparents help raise the children (American Field Service, n.d.). The eldest male is the head of the family and makes important decisions while traditional roles for women are to play a secondary role and earn status through bearing children, with around 1/4 of them working outside the home (Britannica, 2022). It is estimated that in 2023, over 2.2 million children under the age of five, including 538,000 with severe malnutrition, and 1.3 million pregnant women will suffer from acute malnutrition (UNICEF, 2022). In Yemen, overcrowded living conditions, widespread starvation, and a population forced to fend for themselves contribute to persistently high malnutrition rates. The combination of these factors exacerbates the already dire humanitarian situation in the country, posing significant challenges to address malnutrition for Yemeni communities.

Rising food prices have been one of the leading causes of malnutrition in Yemen. As a result of the ongoing economic crisis in Yemen, numerous families are struggling to secure adequate and nutritious food due to the rapid inflation of prices. The availability of diverse food options in small shops and markets in Yemen, which are imported from various regions of the world is commendable given the economic and political state of the nation. However, despite this variety, the prices of these goods remain high and continue to place a significant burden on the local population, particularly those living with limited financial resources (Mona Relief and Development, 2022). The high cost of food and other necessities is detrimental to the daily lives of many individuals and families in the country. The prolonged conflict in the country has led to widespread job loss, and a decline in the currency value of the Yemeni Rial (YER), raising the difficulties faced by the population in securing basic necessities, including food and transportation (Mukoya, 2022). The economic situation in Yemen indicates the importance of providing foreign aid to those in need to address the pressing humanitarian issues in the region.

Solution

The issue of ongoing unrest in Yemen has been recognized by UNICEF which provides aid and advocates for the protection of children. In Yemen, the situation is particularly dire, with 2.2 million children suffering from severe acute malnutrition (Tanis, 2023). This is due to a combination of factors, including conflict, economic hardship, and disrupted health/food systems. By providing crucial therapeutic food and nutritional resources, UNICEF is currently working to save lives and improve the futures of these children. This is essential because it can also help to break the cycle of poverty and disease which can enable children to grow up healthy, educated, and able to contribute to their communities (UNICEF, 2022). The severe malnourished effects experienced by many in Yemen emphasize the urgent need for immediate medical attention and intervention to address malnutrition.

Food price inflation is considered a major issue in Yemen and neighboring countries. A beneficial solution to the issue of food price inflation is the implementation of food fortification programs. This involves adding essential vitamins and minerals to commonly consumed foods, such as flour and salt, to improve their nutritional content. Food fortification would address micronutrient deficiencies which can lead to malnutrition, a major problem in Yemen (UNICEF, 2022). This solution is cost-effective and can be easily scaled up, making it a viable option for addressing malnutrition on a large scale. In addition, food fortification does not require significant changes to people's eating habits, making it a more palatable solution for communities (Almosawa, 2022). Food fortification programs can easily be implemented in collaboration with existing food distribution networks, making it easier to reach those in need. To achieve low food price inflation, the Yemeni government can use fiscal and monetary policies to manage inflation, which would have a positive impact on food prices and rates of malnutrition. The government could introduce targeted subsidies for essential food items such as wheat, rice, and cooking oil, ensuring these staples remain affordable for the general population even during periods of economic instability. This solution can be coupled with other Yemeni initiatives such as UNICEF and the Yemeni World Food Programme to ultimately create a comprehensive approach to addressing malnutrition.

The Mona Relief and Development organization stands out as an active national and local organization that plays a critical role in delivering life-saving aid to displaced Yemeni families, giving crucial support to mitigate the effects of malnutrition and improve the well-being of affected communities. This organization stands as a national non-governmental organization (NGO) and operates primarily within Yemen. It focuses on addressing local issues such as malnutrition and displacement within the country. Mona Relief is funded through a combination of international grants, private donations, and partnerships with NGOs, that ensure a steady flow of resources for its operations. As of April 2024, recent funding from the United Nations' Office for the Coordination of Humanitarian Affairs (OCHA) has enabled Mona Relief to expand its food distribution programs which benefitted 605+ Yemeni families in need (United Nations Office for the Coordination of Humanitarian Affairs, 2021). Yemeni citizens who seek assistance participate in local fundraising events that the Mona Relief offers in order for their organization to run successfully. The Mona Relief Yemen 2022 project was a six-month initiative to provide food assistance to 21 households. During this period, 126 food parcels were distributed on a monthly basis, each containing a variety of food supplements including 10 kg. of wheat, and 5 kg. of sugar, 5 kg. of rice, 2 kg. of dates, 2 cans of oats, 3 cans of beans, 2 boxes of cheese, and an egg dish (Mona Relief and Development, 2022). This project indicates the importance of providing adequate and nutritious food to those in need, especially during challenging times.

Furthermore, one specific idea could be how Mona Relief can expand its reach by establishing mobile health clinics (tents) in remote areas and providing nutritional support to Yemen populations. These clinics would be staffed by trained healthcare professionals who provide nutrition counseling services and are equipped with immediate vaccinations such as vitamin B12 and vitamin D for suffering malnourished families [(World Health Organization (WHO) (n.d.))]. By providing malnutrition healthcare directly to rural communities in need, Mona Relief can address malnutrition more effectively and ensure that displaced families have access to vital healthcare services.

Water scarcity is a driving factor to increased rates of malnourishment in Yemen as only 63% of the country has access to safe drinking water. Water scarcity in Yemen impacts not just food security but also reduces per capita water availability. According to the United States Agency for International Development (USAID), “As of 2018, Yemen's per capita water availability was just 95 cubic meters, and it's predicted to fall to 55 cubic meters by 2031, which is considerably lower than the 500 cubic meter threshold for critical water scarcity,” (United States Agency for International Development, 2023). To combat this issue, harnessing solar technology is imperative to greater success in the country. Solar-powered water systems have already shown promise, with organizations like USAID and Cooperative for Assistance and Relief Everywhere (CARE) installing 20+ solar photovoltaic systems for water wells in Yemeni rural villages such as Kawkab and Sa'dah where they have benefited more than 1.5 million vulnerable Yemenis access clean water (Riley, 2023). Water technology should be implemented in more rural Yemeni areas so that water is available for nutritious food to be made. This funding should be continued from the non-profit sector as it is a valuable token for their commitment in combating malnourishment.

For the same reason, expanding seed banks in Yemen would be an important step to not only decrease malnourishment but to expand seed gene diversity throughout a variety of demographics. A gene bank is a facility where seeds are tightly sealed in controlled conditions and protected from environmental factors to ensure the long-term preservation of plant species. If a natural disaster, epidemic, or global crisis were to occur, a seed bank would be highly beneficial to large populations. It stores thousands of seeds that could be used in an international emergency to ensure food security and help rebuild agriculture. Yemen is home to one current seed genebank which is located in Sana'a, National Genetic Resources Center of Yemen (NGRC) but more facilities are needed to address the diverse needs of the population (Crop Trust, 2022). Expanding seed banks in Yemen would allow for cultivation of crops such as sorghum, millet, and barley, which are well-suited to Yemen's climate and rich in essential nutrients. Sorghum, for instance, is a crop high in B-vitamins, making them ideal for combating malnourishment. According to the Kansas Farm Food Connection organization, “B vitamins include thiamin, niacin, vitamin B6, and pantothenic acid, which has been associated with a 21% lower risk of developing malnourishment,” (Hamilton, 2018). Sorghum poses as a significant crop because including seeds such as sorghum in a seed genebank can amplify agricultural needs and become a benefit to those suffering from malnourishment. Currently, the NGRC of Yemen holds over 6000 seed samples of over 40 crops; over 40% are cereal crops (Crop Trust, 2022). This is significantly low compared to the collections held by larger and more well-funded gene banks around the world. Raising genebanks and funding toward genebanks in Yemen is a powerful step to reduce malnourishment rates. During difficult times where international tensions rise and environmental stresses rise, multiple seed genebanks containing thousands of seeds is the ultimate solution to growing nutritional crops while reducing malnourishment in large populations.

Conclusion

Malnutrition is a severe crisis in Yemen and other impoverished countries worldwide trying to strive for a better future. The Houthi movement in the country has only made the malnourishment worse, with many Yemenis left hungry and without access to the resources they need to maintain their nutritional health. Solutions to end malnourishment in Yemen includes providing free meal programs in schools for Yemeni students to ensure their health is well maintained, thereby fostering an environment conducive to optimal

education outcomes. Maximizing the funding for seed genebanks in different parts of the middle eastern country can ultimately amplify agricultural roots for farmers during international tensions with neighboring countries. Addressing the importance of malnourishment and providing aid to those suffering from malnutrition is of utmost importance in improving the food quality of life for the people of Yemen.

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