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## **Food for Thought: The Importance of Food and Thought in the Rohingya Refugee Crisis**

### **Introduction**

In August 2017, a staggering 700,000 refugees were forced to flee the only home they had ever known. They buried their dead, packed a few belongings, and hiked through treacherous conditions – all in a desperate attempt to find a country that would not hurt them. These refugees are the Rohingya, an ethnic minority that has been forcibly repressed since the dawn of Myanmar itself. Since 1982, when Myanmar officially denied Rohingya citizenship, the Rohingya have especially faced extremely brutal persecution at the hands of Myanmar's militaristic regime and chauvinist citizens. The Rohingya Refugee Crisis, an ongoing humanitarian crisis caused by such persecution, has forced millions of Rohingya to flee Myanmar and seek refuge in neighboring countries.

### **Country & Family**

Myanmar is the largest country in mainland Southeast Asia at over 676,000 square kilometers total and over 2,000 square kilometers from North to South. Located on the Indochinese peninsula, Myanmar is surrounded by Bangladesh and India from the west, Laos and Thailand from the east, China from the northeast, and the Andaman Sea from the South. Myanmar is home to 135 government-recognized ethnicities and 4 predominant religions (Buddhism, Christianity, Islam, and Hinduism). Though there are a considerable number of religions and recognized ethnicities, nearly 90% of Myanmar's population is Buddhist, and 68% of the population belongs to the Burmese ethnic majority. Because the Rohingya join the 2.3% Muslim population, they are both a religious and ethnic minority and have faced extremely violent persecution due to such facts (Lynn).

The Myanmar government does not consider the Rohingya to be citizens of their country; as a result, specific information about Rohingya professions is rarely seen on national documents. Nevertheless, official records show that Rakhine State – where the Rohingya originated – has continually underperformed per capita in comparison to other areas in the country. Its per capita GDP is 25% below the country average and 78% of its population lives below the poverty line (World Bank Group), almost certainly due to Burmese persecution and current social tensions. Myanmar's 2014 national census shows that 61% of people in Rakhine State are involved in primary sectors of the economy like agriculture (Nitta). In Central Rakhine, sectors such as livestock, fishery, and forestry were also found to be valuable sources of income (Nugroho and San). The Rohingya's professional and family life, therefore, likely centered primarily on agriculture and religion. Men worked the fields, growing foods such as rice and beans, while women attended to at-home duties.

### **Challenges & Impacts**

Because Rakhine State lies on the western-most border of Myanmar, most Rohingya have fled to Bangladesh, the closest western country. In fact, over 1 million Rohingya currently live in Cox Bazar, Bangladesh, which has since been described as the world's largest refugee camp. Cox Bazar teeters on the

precipice of safety and danger, not only because of its ever-increasing population, but also because of its constrained geological location near the Teknaf Wildlife Sanctuary and Himchari National Park. The camp itself is built on top of 4,000 acres of unstable forest land and has been labeled as a location of “sandcastles” (McKirdy and Watson). Worse yet, the massive influx of Rohingya refugees has resulted in the building of stacked bamboo dwellings on already hazardous terrain. Landslides and monsoons, which occur particularly frequently from June to September, only serve to increase risk for an estimated 200,000 Rohingya refugees (Gurney). Though these shelters may provide security from the Myanmar government, they offer a precarious alternative.

While the Rohingya may have once been able to provide for themselves through agricultural means, Cox Bazar offers little in the way of work or food. Because the Bangladesh government has no intention of assimilating Rohingya refugees into the native population, there are extremely limited educational opportunities and practically no paid job opportunities for the Rohingya (Williams). As a result of this inability to produce or purchase their own food, the World Food Program (WFP) provides the Rohingya with daily food rations, which primarily consist of rice, oil, and lentils. Even with this food supply, however, the GAGE program reports that inadequate food intake affects 2 out of 3 Rohingya households, and 40% of Rohingya adolescents are in need of food in comparison to 20% of Burmese adolescents (Guglielmi et al.). This fragile position has been further exacerbated by the COVID-19 pandemic, which has caused resource redistribution issues, supply chain problems, and job loss that have further reduced the amount of food the Rohingya are receiving (Guglielmi et al.). According to one refugee, “We suffered a lot due to the lack of income...sometimes we did not have enough to eat” (Yeasmine and Donovan). Both in terms of quantity and access to nutrient-rich food, the Rohingya are evidently not getting the nourishment needed to live a healthy lifestyle.

As a result of all of the aforementioned factors – excessive overcrowding, precarious geography and living conditions, and a lack of nutritive food – many Rohingya refugees also face sanitation issues. In Cox Bazar, there is 1 toilet for every 100 people (Cordova). In such a densely populated area, these toilets are strikingly unsanitary, contain no washing facilities, and provide very little privacy. For women and children especially, these conditions are particularly difficult. One girl said, “If people see us using the toilet, we feel shy and outsiders laugh at us, so I prefer to wait until it is dark,” and one mother stated, “I eat less so I don’t need to go very often” (Cordova). Because of a lack of sanitary facilities, it has become hard for women and children to willingly practice hygiene or even eat food in public places unless they are in the dark.

Aung San Suu Kyi, the former State Counsellor of Myanmar and Minister of Foreign Affairs, continues to support the Myanmar government’s response to the Rohingya Refugee Crisis. In fact, in a speech given at the 43rd Singapore Lecture, she stated, “We, who are living through the transition in Myanmar, view it differently than those who observe it from the outside and who will remain untouched by its outcome,” clearly showing Myanmar’s nonchalance towards the suffering of the Rohingya (Press). Additionally, Rohingya still living in Myanmar continue to face violent persecution, movement restrictions, apartheid, and aid blockages from the Burmese government (Human Rights Watch). These human rights violations have been steadily increasing for 5 years and show no signs of stopping soon. Although Bangladesh has willingly taken in Rohingya refugees, a growing number of Bangladeshi citizens consider the Rohingya to be illegal immigrants, interlopers, and the cause of a rise in crimes

(McPherson and Uddin). This year, Bangladeshi officials succumbed to public pressure and attacked the livelihoods of the Rohingya refugees currently living in Cox Bazar, closing a considerable number of community schools, destroying shops, and limiting travel for the Rohingya (Human Rights Watch).

### **Solutions**

One solution to Rohingya food insecurity is vertical farming. Vertical farming is an agricultural technique in which crops are stacked on top of one another, instead of in horizontal rows (Bowerly Farming). Whereas traditional farming demands large plots of land, vertical farming allows for plants to be grown in more confined areas. If utilized in Cox Bazar, one of the most land-confined areas in the world, it might help to alleviate the paradox of population density and food security, all the while allowing the Rohingya to use the most of the limited space available.

One limitation of vertical farming is cost. Most modern vertical farms today rely on technologically advanced indoor facilities and hydraulic systems, which can be expensive. For instance, in Singapore, one of the first countries to employ this technique locally, the initial cost for a vertical farm can be as high as \$1 million Singaporean dollars, or \$719,920 USD (Liang); this high cost is largely due to energy costs for indoor HVAC (Heating, Ventilation, and Air Conditioning), as well as the inclusion of ecological elements, which allow Singaporean vertical farms to produce little carbon and use water efficiently. If implemented in Cox Bazar through the aid of humanitarian organizations, modern vertical farms would certainly be costly, but would be a great asset in solving Rohingya food insecurity.

Even without modern technology, however, many other types of vertical farms are also productive and cost-effective and can be inexpensively designed to suit specific regions. In Uganda, for example, urban farmers have begun to use vertically stacked wooden crates to produce crops, and 15 vertical farms have been reported to be successfully operational (Kolliesuah, Nelson Papi, et al.). In a similar way, Rohingya bamboo dwellings can be used to vertically stack bamboo “crates” for produce; in this way, it may be easier for Rohingya migrants to adapt to vertical farming because vertical farms can work in conjunction with Cox Bazar's geographical features. Another example of a cost-effective farming technique is sack gardening. Vertical sack gardens are tall sacks filled with soil, acting as homemade “pots” for crops. These little portable gardens are especially useful in areas lacking proper resources, such as Cox Bazar. In Kenya, for example, “sack gardens” have become the norm for over 22,000 households (Kolliesuah, Nelson Papi, et al.). Because Cox Bazar has scarce gardening resources, it may be helpful and practical for Rohingya refugees to use rationed food sacks or plastic bags as a cheaper alternative.

All 3 examples of farming can also be paired with greywater garden pools, which can allow for the sustainable use of water. Greywater pools are small areas of lightly used water, which include leftover, untreated water from bathtubs and wash basins. Greywater pools are typically used in areas where water is scarce, such as California, where drought is a major concern. The implementation of greywater pools, however, can also be used in large communal spaces like Cox Bazar, in which many people share the same sanitary stations. The ‘Resource Recovery and Reuse (RRR) in Refugee Settlements in Africa’ project, for instance, has taught many refugees in the Kalobeyei Refugee Settlement, a branch of the 200,000+ populated Kakuma Refugee Camp, how to use greywater for their home gardens (Okoth). In a similar way, refugee organizations in Cox Bazar can teach the Rohingya how to safely use greywater. By

collecting greywater from the community baths and then digging trenches to reroute the wastewater, the Rohingya may be able to water their own home vertical gardens.

One limitation of greywater garden pools is sanitation. If not used or taken care of properly, such pools may contain pathogens or bacteria, especially from human contact (Greywater Action). Because of Cox Bazar's unsanitary conditions, it may be wise to scientifically test and trial the cleanliness of the camps' water before implementation. In this regard, foreign aid is especially needed to provide cleaner, more accessible water facilities. If deemed clean enough for greywater usage, refugee organizations in Bangladesh must adequately provide specific guidelines. For instance, it's crucial that such organizations follow precautions for greywater soaking and the time limits for using greywater (less than 24 hours).

Working knowledge of urban farming is required for any of these approaches to be effectively applied. As such, it is important for global forces to not only attempt these novel solutions, but to lean on and support organizations that already exist to help Rohingya refugees. The Richardson Center for Global Engagement, for example, is a non-profit organization that has been providing aid to Rohingya refugees for many years; by facilitating partnerships between various different businesses and UN agencies, they have helped Rohingya refugees develop urban farming skills essential for healthy, sustainable agriculture (Ross). DanChurchAid, too, is an organization that has actively been a relief force in Cox Bazar since 2017; through their "Homestead Gardening and Community Aquaculture" project, they have provided the Rohingya with a means for managing their own food via small-scale, homestead farming (DanChurchAid). Such organizations are only two examples of many that are currently involved in the fight for Rohingya food security. Only by working with each other – with non-profit organizations, engineers, agronomists, Rohingya refugees, and local Bangladeshi citizens – can truly culturally sensitive, yet effective gardens be created.

Vertical gardening paired with greywater pools not only acts as a method for sufficient food intake, but also provides a source of income and opportunity for youth education. Cox Bazar could benefit from a recent regulation passed in Turkey, which mandated the minimum wage for all Syrian workers and allowed registered Syrian refugees to seek work permits that provided labor rights (Gee). With the support of government mandated permits, the Rohingya may be able to sell their crops in market places outside of Cox Bazar and make sizable profits. Through this process, the Rohingya stigma against education might also be reduced. Recent research has shown that parents' ability to make a living is directly linked to whether or not refugee children attend school (Gee). Self-reliance, gained through youth education, may be the key to the establishment of a Rohingya community where no one is hungry. It is important to note, however, that this course of action is entirely dependent on the Bangladeshi government. Without their utmost support for working Rohingya, as seen in their lack thereof in recent years, youth education for the Rohingya remains impossible.

However effective these solutions may be, they provide only transitory relief for Rohingya refugees, who continue to have no place to call home. With no allies in Myanmar and a growing number of opponents in Bangladesh, it therefore becomes increasingly important for global forces to urgently come forward and address the root cause of the Rohingya Refugee Crisis – the Myanmar regime. If there is to be any meaningful change, world superpowers and members of the United Nations (UN) alike must combine forces and apply global pressure.

One way to apply pressure is through economic sanctions. Currently, the United States is taking action by imposing arms sanctions against Myanmar's military and affiliated government officials. In fact, the United States has recently targeted Sky Aviator Company Unlimited, one of Myanmar's key military aircraft suppliers, as per Executive Order 14014. This instance is one of many recent efforts by the United States to support the persecuted people of Myanmar, especially those affected by recent air strikes. In order to maximize the effect of such sanctions, combined global forces must continue to apply pressure by setting their sights on even higher sanctions – particularly in regard to oil and gas. Myanmar's gas and oil industry is on track to earn approximately \$1.5 billion from oil and gas projects alone, with 50% of Myanmar's foreign currency coming from natural gas sources (International Trade Administration). By enacting oil and gas sanctions, global forces could tear considerable power and money from Myanmar's greatest conglomerates and government officials and instead give power to ordinary civilians. If a large-scale government and law change were to occur, the Rohingya may be able to voluntarily migrate back to Myanmar with the fundamental dignity they deserve.

In this situation, burden sharing is equally crucial. Many developed nations currently donate considerable amounts of money to the Bangladeshi government, so that the government may use the money to aid the Rohingya. The United States, for example, has donated \$130 million to the Bangladeshi government in support of the Rohingya Refugee Crisis (U.S. Department of State). Developed nations, however, should not only donate, but also volunteer to take in Rohingya refugees from Bangladesh and Myanmar by offering asylum to the Rohingya and housing them in a respectful and dignified manner. Formal refugee status must be granted to the Rohingya by all UN countries, and global law must be sufficiently resolved to handle such matters. Now is the time to make refugee assistance a priority, not only in rhetoric, but through established action.

### **Conclusion**

Merciless persecution of the Rohingya Muslims in Myanmar has resulted in the forcible displacement of almost 1 million refugees. From Operation Nagamin in 1978 to the passing of the Burma Citizenship Law to the 2017 mass attack, the Myanmar regime has viciously targeted and tortured the Rohingya on the basis of ethnicity and religion for decades. Recently, the Rohingya Refugee Crisis has made headlines amidst growing numbers of Rohingya making deadly boat crossings to escape Myanmar. Though the situation remains dire, perhaps the headlines are a beacon of hope in the midst of darkness. As more and more people become aware of the Rohingya Refugee Crisis, a greater cry for government action is certain to rebound. Until international law is sufficiently resolved and the Myanmar government is held responsible, those informed about the crisis must continue to advocate for the Rohingya. Together, and only together, can our voices make a difference.

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