Meghana Nakkanti
Nixa High School (now Davidson College)
Nixa, Missouri (now Davidson, North Carolina)
India, Food Insecurity

Transforming Agricultural Overflow: Addressing Food Insecurity in India Through Community Kitchens

In the age of rampant consumerism, the concept of "too much" persists as a common theme. Despite the widespread perception of hunger as the consequence of having an insufficient amount of food, new data reveals the contrary: some nations produce a surplus of agricultural products that are improperly allocated. This discovery indicates that hunger does not always result from inadequate food production. While the concerns regarding food loss and food waste are vital issues to address, those concerns do not sufficiently address the surplus that remains in spite of the rampant food waste and food loss. For countries such as India, the most significant contributor to food insecurity is the flawed distribution of surplus grains (Athar, 2018; Bansal, 2021).

Recent studies indicate that around 16 percent of Indians are undernourished, roughly 230 million people, and millions die from food insecurity yearly (Wallen, 2022). However, considering India's agricultural output, there is no reason for this issue to remain prominent. Between 2015 and 2016, India produced 270 million metric tons of food, a substantial difference between the amount of food needed to feed the country, which is around 225-230 million metric tons (Athar, 2018). In addition, the Indian government is not distributing the over 120 million metric tons it possesses in reserves due to the poorly managed public distribution system for food (Bansal, 2018). While these reserves are affected by a number of factors such as weather, storage efficacy, elections and local politics, the rice surplus is still present. Although there are other crops such as fruits and vegetables that do not always have a surplus as well, the excess amount of a staple can be used as a foundation to address food insecurity in the long-term. Therefore, addressing the hunger crisis by distributing the existing food will not cost the government much in the long term because decreasing food insecurity has humanitarian and economic benefits (Patnaik, 2021).

Similar to other nations that have begun rebuilding after colonialism, India has seen a substantial improvement in food access by creating food safety nets and attracting international investment (World Food Programme, 2023). While addressing systemic issues such as hunger and its collateral effects is a behemoth task, the status quo has revealed a negative outlook. Unfortunately, the Indian government's efforts have remained insufficient. On the 2022 Global Hunger Index, India was ranked 107th out of 121 nations, with high malnutrition rates and nutrient deficiencies among women and children (Global Hunger Index, 2022). Families that struggle with food insecurity are more likely to be low-income and participate in the informal economy, which does not yield consistency. The effects of having inconsistent access to food include the continuation of low-quality employment, insufficient access to education, and poor health outcomes (Bansal, 2018). These factors contribute to a vicious cycle of lowered life quality exacerbated by food insecurity. The notable concerns associated with hunger are only perpetuated when food insecurity remains a pressing problem.

The harms of food insecurity are well-documented, ranging from health issues to socio-economic disparities. For example, in children, food insecurity contributes to higher rates of birth defects, cognitive issues, asthma, mental health issues, and lower levels of vital nutrients (Gundersen & Ziliac, 2015). In addition, mental health issues, hypertension, poor sleep, diabetes, and other conditions are common in adults who are food insecure. These concerns increase and decrease in prominence based on whether the food insecurity was prolonged, along with other considerations. The issues with education access and low-quality employment are directly related to food insecurity, since poverty increases participation in the informal economy, involving low-paying and inconsistent employment. The informal economy is not always conducive to social-economic mobility, which is often a crucial element of decreasing malnutrition and similar issues in the long-term and for future generations. In the status quo, many in these conditions remain in this cycle because the existing steps to mitigate hunger are ineffective.

India, once one of the poorest nations in Asia, has slowly become an economic powerhouse, lifting millions out of poverty every year. Despite the rapid growth and improvement in the quality of life, many still need help accessing adequate resources such as food and education. This devastates families, especially those with three to four generations living under one roof, a typical phenomenon (Chadda & Deb, 2013). Indian culture tends to be collectivist and family-oriented, meaning that many resources are shared, from the kitchen to bank accounts. The limited number of resources in the possession of some Indian households might have to be stretched across many people, inadequately serving all of those individuals. Valuable assets such as clean water, healthcare, education, and other vital assets are not accessible to all; income and geography often reflect access probability. Additionally, the average Indian woman has 2.2 children in her lifetime (Kramer, 2021). As a result, there is still a pressing need to address problems associated with hunger as India's population continues to grow.

While multiple solutions have been proposed, such as increasing agricultural output and the funds allocated to rural farmers, neither address the existing surplus. Instead, they create more waste without the guarantee that the imminent crisis of food insecurity will be effectively addressed. Although the following solution does not address food loss or food waste, which occur on the system and individual levels, respectively, meaningful progress in addressing food insecurity in India can be made. The most sustainable, long-term solution is distributing surplus grain to community kitchens across India, targeting the most vulnerable populations.

In the status quo, many community kitchens in India are located in places of worship. These locations make distribution more effective, as the nearly 3 million places of worship have robust community connections and strive to provide food daily, regardless of income status, religion, or other qualities (Shrinivasan, 2019). Since these places of worship are central elements of villages and cities, programs based out of these institutions have the potential to reach specific demographics while considering the diversity of Indians and their spiritual beliefs. The majority of India is religious, with a recent survey finding that 84% of Indians believe religion is essential and 71% stating that they visit a house of worship at least once a month (Sahgal et al., 2021). Additionally, a meta-analysis of existing literature determined that South and rural Indians are the most vulnerable to food insecurity (Ganpule et al., 2023). This group has high conformity to religion, further demonstrating the predicted efficacy of a wide-scale effort to provide more food to community kitchens. However, it is imperative to acknowledge that the government might be limited in its ability to work directly with community kitchens located in places of worship for a

number of reasons. The current political climate is not always conducive to religious equality, since some religious groups are not as supported by the federal government at the moment. Additionally, while many Indians are religious, there are millions more who are not regular attendees of a place of worship or have a faith. These groups would essentially be disregarded and left behind if community kitchens were only held in these locations.

However, due to the pandemic, community kitchens can now be found in government buildings, schools, and police stations. They have expanded beyond their religious roots, despite the fact that some of the most prominent community kitchens are located in temples, mosques, and churches. These community-based kitchens are practical for multiple reasons. First, the food provided in these community kitchens is nourishing, addressing the prominence of nutrient deficiencies. Since the food is culturally relevant and the individuals in those communities are accustomed to those types of food, cultural sensitivity and respect are prioritized. Rather than addressing food insecurity with solutions that seem foreign to those who need the help the most, the staple foods from each city and state can be replicated locally. Low-income and rural Indians often cannot afford healthy meals, so this cost would be mitigated. Although rural wages have increased, healthy food costs are comparatively expensive, costing nearly 60% of males and 90% of females daily wages in the status quo (Raghunathan, 2020). Community kitchens equipped with ample resources can help mitigate this issue.

The second reason these kitchens are practical is their success in the pandemic and beyond. During the pandemic, the Indian government opened 413 community kitchens in Uttar Pradesh, delivering over 42,000 meals daily to people in need (GaonConnection, 2021). Grain that was stored in different facilities was distributed by state, and state governments further distributed those quantities. States such as Kerala, and Maharashtra as well as women's groups delivered millions of meals during the pandemic, helping impoverished rural communities (Bratton, 2020; Jacob, 2020). Even before the pandemic, places of worship such as the Harmandir Sahib fed 100,000 people daily, a Herculean effort costing 4 million USD annually (Floyd, 2021). These efforts between the government, houses of worship, and nonprofit organizations also result in the distribution of additional funds, wheat, and rice to those who depend on the extra support. While the logistics of these distributions can be temporarily complicated and potentially expensive, the benefits outweigh the potential short-term consequences.

Not only are community kitchens accessible, address the needs of each community they serve, provide healthy meals, and have already seen widespread success, but there are already efforts to expand the number of these kitchens across India. For example, Uttar Pradesh is attempting to boost the number of community kitchens for low-income and rural Indians. Unfortunately, cost remains an inhibiting factor to this expansion (Parashar, 2022). Currently, for 300 canteen-style kitchens that serve 2.5 million people daily, there is an annual cost of 12.2 million USD (Khera, 2016). However, the expenditures (such as the 4 million USD that the Harmandir Sahib is spending annually) could be mitigated by using the food surplus. If the Indian government decreased inefficiencies in the Public Distribution System (PDS) and formed relationships with local religious and community centers, meaningful progress could occur in addressing food insecurity. Rather than approaching the issue from a national lens, each state should be allocated a proportional amount of excess grains to distribute to these community kitchens. Decentralizing the distribution process can allow for the gaps to be mitigated and direct connections between farmers with surplus food and community kitchens to be nurtured.

Although there would be an initial cost of at least 500 million USD to launch a widespread campaign to build new community kitchens and fund existing ones, the long-term economic cost of food insecurity in India is too significant to avoid. By 2030, India will lose millions of individuals from malnutrition, face losses of 40 billion USD, and contribute to GDP losses of 11 percent across the Asian continent (Sharma, 2021). Numerous economic benefits exist if the humanitarian crisis is not a sufficient motivator. Since food insecurity is strongly related to poor health outcomes, low-quality employment, and a lack of education, addressing the issue as an extension of existing policy would foster immediate benefits without disrupting the system. Community kitchens would create tighter connections on the local level, allowing individuals to play a role in the improvement of their own communities, with those benefits potentially rippling to a widespread movement across the Indian subcontinent.

Additionally, the long-term cost of maintaining the community kitchens and expanding the number of them across India would cost substantially less than the current Public Distribution System (PDS) for food. Between 2019 and 2020, the Indian government spent nearly 20 billion USD to store, transport, and distribute grain throughout the country (Pingali, 2022). Despite the massive annual spending, food insecurity remains rampant throughout India, leading to countless harm to Indians. The solution lies in decentralizing distribution, as most grain is harvested in six states in Northwest India, but South and rural Indians have higher rates of food insecurity. Rather than attempting to increase funding for the current system, the billions of dollars can be reallocated to expanding community kitchens. The meals in these kitchens are fairly cheap and nutritious, creating a temporary solution to remain in place while meaningful policy is implemented on the state and federal levels.

Millions will no longer be food insecure by expanding the number of community kitchens and state-run canteens across India. These kitchens provide cheap and nutritious food, often out of reach for many (Laha, 2020). The funding mechanism for these programs would involve reallocating existing funds for the Public Distribution System, which remains incomprehensive and ineffective. Community kitchens tap into tight-knit communities nationwide, strengthening bonds and effectively addressing hunger using a bottom-up approach. Fostering connections between governments, food surplus, and community kitchens addresses nearly every issue associated with food insecurity. The food provided in these locations is healthy, addressing nutrient deficiencies. Additionally, quality employment is a critical element of community kitchens, as hundreds of thousands are employed to support these efforts. The solutions with the greatest potential of longevity and effectiveness, as seen through numerous empirics and pandemic-era shifts in how the Indian government addressed food insecurity demonstrate the ability for community kitchens to help millions of Indians. With the implementation of tens of thousands of community kitchens in community buildings, places of worship, and other locations, a problem that has persisted for decades can finally be addressed. Combined, poverty and food insecurity decrease, bridging disparities and nurturing the potential of India as an economic powerhouse that leaves no Indian behind.

Works Cited

Athar, U. (2018, January 3). *As millions go hungry, India eyes ways to stop wasting $14 billion of food a year.* Reuters.
   https://www.reuters.com/article/us-india-food-hunger/as-millions-go-hungry-india-eyes-ways-to-stop-wasting-14-billion-of-food-a-year-idUSKBN1ET07Y

Bansal, V. (2021, August 6). *India's godowns are overflowing. So why are people starving?* The Indian Express.
   https://indianexpress.com/article/opinion/columns/indias-godowns-are-overflowing-so-why-are-people-starving-7440463/

Bratton, H. (2020, September 13). *How community kitchens in India are helping mitigate the spread of COVID-19.* Borgen Project.
   https://www.borgenmagazine.com/community-kitchens-in-india-covid-19/

Chadda, R., & Deb, K. (2013). Indian family systems, collectivistic society and psychotherapy. *Indian Journal of Psychiatry*, 55(6), 299. https://doi.org/10.4103%2F0019-5545.105555

Floyd, C. (2021, May 28). *The world's largest community kitchen feeds 100,000 daily at Golden Temple, India.* Insider.
   https://www.insider.com/worlds-largest-community-kitchen-golden-temple-india-feeds-100000-daily-2021-5

Ganpule, A., Brown, K., Dubey, M., Venkateshmurthy, N. S., Jarhyan, P., Maddury, A., Khatkar, R., Pandey, H., Prabhakaran, D., & Mohan, S. (2023). Food insecurity and its determinants among adults in North and South India. *Nutrition Journal*, 22(1).
   https://doi.org/10.1186/s12937-022-00831-8

GaonConnection. (2021, May 29). *Uttar Pradesh comes up with community kitchens to feed the needy, more than 42,000 food packets distributed daily.*
   https://en.gaonconnection.com/uttar-pradesh-covid19-lockdown-community-kitchen-poor-poverty-food-packets-yogi-adityanath/

Global Hunger Index (2022). India - Global Hunger Index (GHI). *Global Hunger Index*.
   www.globalhungerindex.org/india.html

Gundersen, C., & Ziliak, J. P. (2015). Food insecurity and health outcomes. *Health Affairs*, 34(11), 1830-1839. https://doi.org/10.1377/hlthaff.2015.0645

Jacob, J. (2020, March 26). *Coronavirus lockdown in Kerala: Community kitchens deliver food to needy at home.* India Today.
   https://www.indiatoday.in/coronavirus-outbreak/story/coronavirus-lockdown-in-kerala-community-kitchens-deliver-food-to-needy-at-home-1660058-2020-03-26

Khera, R. (2016, January 22). *Community kitchens: An idea whose time has come.* Scroll.in.
   https://scroll.in/article/801742/community-kitchens-an-idea-whose-time-has-come

Kramer, S. (2021, September 21). *Religious composition of India.* Pew Research Center's Religion & Public Life Project.
   https://www.pewresearch.org/religion/2021/09/21/religious-composition-of-india/

Laha, S. (2020, April 29). *Community kitchens are leading the need of hour*. Tehelka.
   http://tehelka.com/community-kitchens-are-leading-the-need-of-hour/

Patnaik, P. (2021, January 12). *Why are people going hungry in India despite a massive grain surplus?*

MR Online.
https://mronline.org/2021/01/12/why-are-people-going-hungry-in-india-despite-a-massive-grain-s
urplus/

Parashar, B. K. (2022, March 28). *UP govt gears up to run community kitchens for poor.* Hindustan
Times.
https://www.hindustantimes.com/cities/lucknow-news/up-govt-gears-up-to-run-community-kitche
ns-for-poor-101648480392979.html

Pingali, P. (2022, November 3). *Revealing the hidden production costs of India's public distribution
system.* Cornell University.
https://tci.cornell.edu/?publications=revealing-the-hidden-production-costs-of-indias-public-distri
bution-system

Raghunathan, K., Headey, D., & Herforth, A. (2020). Affordability of nutritious diets in rural India. *Food
Policy*, 99, 101982. https://doi.org/10.1016/j.foodpol.2020.101982

Sahgal, N., Evans, J., Salazar, A., Jo Starr, K., & Corichi, M. (2021, June 29). *7. Religious practices*. Pew
Research Center's Religion & Public Life Project.
https://www.pewresearch.org/religion/2021/06/29/religious-practices-2/#:~:text=A%20majority%
20of%20Indian%20adults,in%20their%20lives%20(84%25).

Sharma, A. (2021, October 20). *Poor food security, hunger crisis direct threat to Indian economy.*
Businessworld.
https://www.businessworld.in/article/Poor-Food-Security-Hunger-Crisis-Direct-Threat-To-Indian-
Economy-/20-10-2021-409284/

Shrinivasan, R. (2019, November 23). *Nation of worshippers: India has one place of worship for every
400 people.* The Economic Times.
https://economictimes.indiatimes.com/news/politics-and-nation/nation-of-worshippers-india-has-
one-place-of-worship-for-every-400-people/articleshow/72200669.cms

Wallen, B. J. (2022, October 22). *Hunger plagues India – but there's no shortage of food.* The Telegraph.
https://www.telegraph.co.uk/global-health/climate-and-people/hunger-plagues-india-no-shortage
food/

World Food Programme. (2023, February). WFP India country brief.
https://docs.wfp.org/api/documents/WFP-0000147658/download/