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Pakistan, Population Demographics

The People Problem: Population Control in Pakistan to Create Food Security

Demographics have a strong link to food insecurity with the fundamental issue being the discrepancy between the amount of affordable food available and the demand. Pakistan, situated in the Indian Subcontinent in South Asia, has become the fifth most populated country in the world—and one of the hungriest. Pakistan's burgeoning population has surpassed 242 million and is still growing with an estimated population growth rate of 1.95% as of 2022 (CIA World Factbook). The government is a federal parliamentary republic with three branches: judiciary, legislative, and executive. The President does not directly run the government and is a constitutional figurehead, while the Prime Minister exercises power on their behalf. While 62.2% of the total population is rural, urban sprawl is becoming a salient issue as the population increases and cities fail to meet the demand for housing and resources. With a total of 79.6 million hectares of land, about 23 million hectares are used for the cultivation of crops (Farhan et al 2022). However, agricultural land loss is a primary concern due to these lands being converted to urban areas in unplanned development. The decreasing amounts of arable land hinders the ability of production to keep pace with the growing population, placing a high burden on the agricultural sector. As more land is used to house people, less land can be used to feed them (Ulain et al 2022). Major agricultural products include rice, wheat, cotton, and maize with the main exports being textiles, clothing, and rice. Notable export partners include the United States, the United Kingdom, China, and Germany.

The average household size varies anywhere from 5 to 10 people due to close relations with extended family. Homes are made from many materials ranging from concrete and brick to wood and mud. Most houses are built with flat tops and stone floors to keep cool and sustain the intense heat of Pakistani summers with average temperatures of 100 degrees F. The climate is extremely hot and dry in most of the country, yet arctic in the north. A typical family diet consists of lentils, meat, fruits, vegetables, and spices. Chai and wheat-based flatbreads or rice typically accompany almost every meal. Oil is used in abundance with nearly all foods being fried or cooked into *salans* (curries). Those in urban areas can visit supermarkets or street markets to obtain food. In rural areas, street markets, vendors, and subsistence farming can provide individuals with food. The labor force consists of approximately 73 million people, 42.3% of which are involved in agriculture (CIA World Factbook, 2021). Salaries average around 274,000 Pakistani rupees annually, the equivalent of \$1200, perpetuating the issue of food affordability. Education in Pakistan is non-compulsory, meaning around 40% of all children do not attend school. These numbers are mostly due to disparities in socioeconomic status, gender gaps, and geographic barriers. Males outnumber females in Pakistan's education system by the millions. Public healthcare in Pakistan is behind the private sector in many aspects, primarily the lack of facilities and access. There is an estimated 1 doctor for every 1000 people in the population. In the public sector, health care is not affordable for most of the population as around 80% pay out of pocket for their healthcare expenses (Thelwell). With governmental funds set to decrease in 2023, more burden and stress is projected to be put on the already

chronically underperforming system (Finance Division- Government of Pakistan). However, Pakistan's government aims to reach Universal Health Care under the United Nations Sustainable Development Goals in the coming years. Education in Pakistan is generally affordable with the low expenses for government public schooling but the quality of education in such schools differs greatly from the more costly private schools. Women are typically the victims of lesser access to education and health care, which can be attributed to women's limited autonomy with financial freedom, traveling, and a lack of female healthcare providers. The vast majority of citizens in Pakistan do not have continual access to clean water, gas, or electricity as the government has quotas for these resources, leaving many to live without these necessities. Almost 15% of the population does not have access to mobile phones and an even greater disparity due to the gender gap is present (Kazi et al). The majority of roads in Pakistan are dilapidated, congested, and sometimes nonexistent in rural areas, creating a barrier to accessibility of nutritious and sufficient amounts of food, forcing many individuals to rely on subsistence farming. Other barriers include the value of the Pakistani rupee dropping drastically during the inflation crisis caused by COVID-19 and natural disasters, which can limit the food supply from damaged agriculture infrastructure. Regulations need to be addressed on the production, processing, transportation, and vending aspects of food systems to allow foods to become more easily available to consumers.

The high demand for food is directly proportional to the growing population; the shortcoming is the lack of availability, affordability, and distribution. If the population continues to grow at a steady rate, this figure is projected to reach over 380 million by 2050 (World Bank *Pakistan*). This kind of unchecked growth will lead to the number of people far outstripping that of the resources available to them. Although Pakistan has seen a decrease in total fertility rate and population growth rate, the country continues to see large increases in population. Family planning efforts have been attempted in the past, but they have not been able to create universal change. Aspects contributing to this trend include the lack of widespread family planning and sex education, social norms of early marriage and large family sizes, cultural subjugation of women, religious reservations, polygamy, and the recent influx of refugees from Afghanistan. Pakistan ranks with a high score of 26.1 on the Global Hunger Index, a metric ranking the severity of hunger in a country, indicating the situation in Pakistan is dire ("Pakistan." 2022). Rural areas are affected by overpopulation in Pakistan due to the need for more children to provide labor to sustain family farms. Urban areas are affected by overpopulation in Pakistan in the form of extreme congestion. As a larger number of people populate urban areas, the quality of life decreases with fewer resources being available for proportionate distribution. The economic divide based on sex keeps women out of the workforce, giving them little to no financial freedom and keeping them dependent on their families. Over 50% of married women between the ages of 15 and 49 who wish to avoid pregnancies are unable to access modern contraception (Sundaram et al). providing for large families becomes increasingly difficult with the economy facing high inflation and unemployment. The dependency ratio is high, meaning there is a greater number of elderly and children than workers in the labor force, indicating a high stress placed on the economy to support the population. In a country where unemployment and low income are already overwhelming issues, overpopulation creates fewer opportunities for people to provide for their families successfully. There are approximately 1.4 million Afghan refugees residing in Pakistan, adding to the densely populated nation (UNHCR Data Portal). Overpopulation in Pakistan has led to environmental deterioration such as deforestation, urban sprawl, and pollution. Deliberate deforestation to create

agricultural lands or urban areas is indicative of the growing need for housing and increased food production.

Although the severity of the population issue is high in Pakistan, changes can be implemented to create a future with reduced food insecurity. Pakistan's ability to achieve food security through population control appears to be latent. Many of the obstacles to a more equitable and accessible food distribution concern societal pressures and norms. Recommendations for a solution to food insecurity through population control in Pakistan would begin with Phase One, creating awareness through public service announcements in the media. Interviews and advertisements regarding overpopulation featuring government officials and other public figures would be instrumental tools in influencing the public and swaying favor toward family planning. Phase Two would require removing misinformation and misconceptions about birth control relating to health and religion. Illuminating the population with the information that modern contraceptive methods are generally safe would allow for an increase in their use as many currently have reservations for fear of health side effects (Asif and Pervaiz). Additionally, there are concerns about religious guidelines on contraception. Although Islamic law does not explicitly forbid contraception, societal norms put emphasis on not using contraception. Due to Pakistani culture being very religiously centered, religious leaders acting as the diffusers of information would allow the topic of sex and speaking openly about contraception to become less stigmatized. The uninformed population would benefit from the creation of opportunities for education in religious circles, bringing forward the idea of religious leaders' involvement in providing awareness and information to communities. Phase Three would consist of female empowerment as it has a correlative link to the decrease in total fertility rate and population growth. Advocating for women's education and reserving at least 40% of jobs for women would give them opportunities to enter the economy and pursue a career. Encouraging an increase in female muftis and imams (Islamic religious leaders) would provide women with a presence in religion, further helping to reduce stigma and encouraging family planning with contraception use. Furthermore, female empowerment aligns with Pakistan's Family Planning 2030 commitments ("Pakistan Family Planning 2030"). Community programs by female workers could lead to increased awareness and participation in an active effort to curb overpopulation. This would empower women to talk openly with their husbands about spacing children ("Integrating Family Planning with Primary Health Care in Pakistan"). Phase Four would center around laws and regulations. Creating laws to make education compulsory for all children would allow a standardized method of spreading birth control awareness, especially to the younger population. Financial incentives to have fewer children could be offered by the government for those below the poverty line in an attempt to level all growth rates of subgroups of the population. Phase Five would include making contraceptive availability and affordability widespread. Free contraceptives in hospitals and clinics all around the nation would allow greater access to birth control for everyone. Funding from previous lenders such as the World Bank, Asian Development Bank, United Nations, and International Monetary Fund would be required to allow these recommendations to succeed.

Despite the many strengths of the proposed solution, weaknesses must also be realized. Due to the large focus on adjusting long-held cultural beliefs, the solution would be a model for creating change in the long term and may take many years to manifest in the form of substantial population decreases. Furthermore, the potential lack of funding presents another concern. Pakistan spends approximately \$81 million USD per year on contraceptive services and would need around \$92 million more to cater to the

entire population's needs (Sundaram et al, 2019). While economics play a central role in inhibiting overpopulation, another aspect needing to be addressed is government instability. Having a long history of coups, corruption, and political unrest, Pakistan loses large amounts of money to these issues, depriving needed funding that could be allocated to family planning programs and the agricultural sector. Many countries similar to Pakistan have tackled the problem of overpopulation in relation to food insecurity. For example, India's slogan *Hum do, hamare do* (We are two, we have two) promotes family planning and brings awareness to overpopulation. Government incentives for sterilizations are provided (Rahaman et al 2022). In Bangladesh, "One couple, one child" is a popular slogan to advocate for having smaller families through the anti-natalist approach. Door-to-door female educational outreach creates a feeling of contact and support for Bengali women, encouraging the use of contraceptives ("Case 13: Reducing Fertility in Bangladesh"). Bangladesh has also been able to implement population control programs through the promotion of education, having successfully lowered the total fertility rate from 6.6 in 1960 to 2.1 in 2018 (Rizvi 2018). Following Iran's religious approach would include obtaining fatwas from top-ranking clerics about the allowance of contraception in Islam, using media to spread info, and increasing government provisions of resources to be distributed to the population in order to promote free family planning ("Iran's Family Planning Program: Responding to a Nation's Needs"). This would allow modern contraceptives to be provided for free at public clinics, helping to curb population growth. In Pakistan, it is more than likely that the initial population growth programs would be received poorly by the general populace. However, assertive encouragement from leaders and public figures would be able to help eliminate the stigma around the use of contraceptives. The media would also play a key role in diffusing the concepts and goals of the population control programs.

As Pakistan struggles with overpopulation and food insecurity, it becomes increasingly imperative that the country take action. Due to the number of obstacles to stopping overpopulation, the time needed for a solution to be successfully implemented could be several decades. However, addressing the barriers to progress can allow the successful integration of policies aiming to reduce population growth and hunger. Approaching the issue from a religious and cultural perspective will allow the solution to be better suited for dissemination from the foundations of society upwards, reaching all social classes.

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