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Bangladesh, Populations

Bangladesh: Saving the Sprawling State

INTRODUCTION

Imagine that you must work every day of your life just to support you and your family, and that too with just around 15 US Dollars a day (World Bank Group 2020). For most people in Bangladesh, this is reality. A country of around 164 million people packed into an area about the size of the state of Georgia, Bangladesh is the most densely populated country that is not a microstate. Despite innovations in agricultural efficiency, urbanization caused by the extremely large and fast-growing population of Bangladesh results in pressure on water and land and ultimately, a shortage of food for its people. However, by supporting the empowerment of Bangladeshi women and rural populations, the negative effects of urbanization in Bangladesh could be mitigated to a point where food insecurity in Bangladesh is much less prevalent.

Bangladesh's geography and climate contribute heavily towards the problems it has. Most of the country is relatively low in elevation, as it is found at the mouths of the Ganges and Brahmaputra Rivers. Its location on the Bay of Bengal makes it susceptible to devastation from cyclones, which considerably shrink arable land in the country and cause affected populations to migrate to urban centers such as Dhaka in search of refuge. This urbanization exacerbates the effects of natural disasters by expanding urban areas to accommodate for the new migrants at the cost of valuable land that could be used to grow desperately needed food such as rice, the country's most vital crop. Furthermore, since urban areas can only be so large, an increasing population places extreme stress on the environment's water supply through use and pollution. In turn, less water is dedicated towards agriculture and therefore the production of food for the Bangladeshi people (Ismail 2016). The issue of food insecurity in Bangladesh is already severe due to relatively uncontrollable conditions such as droughts and floods, and rampant urbanization makes the issue nearly impossible to tackle. This affects everyone in Bangladesh, whether that be directly through physical wellbeing or indirectly through the economy. Considering the country's population, the significance of effectively handling urbanization to alleviate the stress on Bangladesh's food security is paramount.

BANGLADESH'S URBANIZATION

Bangladesh's large population can be attributed to its high fertility growth rates in the past. Although they have been significantly reduced, the country continues to grow immensely because of its relatively

large population of youth, an aspect of the concept of demographic momentum. A huge contributing factor to this effect is Bangladesh's infamous tradition of marrying off teenage girls – it is estimated that around 30% of those younger than the age 15 are victims of this issue (Haast and O'Brien 2019). To make matters worse, not only is the size of Bangladesh's population a burden on the country but also its concentration. As welfare is not too ideal in rural areas due to a lack of reliable profit from farming caused by numerous factors including climate change and unfair prices for produce, many people migrate to urban areas for a better lifestyle. However, with a lack of education, most of these immigrants are unable to acquire the prosperity that they wished to achieve. Instead, they get stuck in urban slums with minimal basic services. In fact, nearly 1 of 5 people in urban Bangladesh lives in poverty, and slums have poverty rates almost 3 times higher than other areas in Dhaka, the capital and largest city of Bangladesh (Rahman and Hill 2019). Waste disposal, hygiene, and housing, among other public services are scarce if not nonexistent in these areas. People often must take up hazardous, unpleasant jobs such as breaking bricks for cement or cleaning septic tanks that force workers to toil in unsanitary, grueling conditions only for them to barely provide enough for a family of four just to eat. With such low income and quality of life, it is difficult for Bangladeshis to obtain both food and other necessities like medical treatment and clean water, which are all things becoming less accessible to the average person in this country. Additionally, land, people, and water, amongst other resources, are increasingly dedicated to this urbanization.

BANGLADESH'S GEOGRAPHICAL CHALLENGES

The situation of Bangladesh as a geographical location and hotspot for centripetal movement described above clearly has a major impact on the ability of its people to get the required amount of food needed for basic sustenance. Even considering the massively increasing food imports Bangladesh takes in, there is an inability to make up for the shortfall due to rice being much more expensive outside domestic markets and the Indian ban on rice exports in 2007 (UNU-WIDER 2015). In fact, 36% of children under the age of 5 are inflicted with chronic malnutrition, with 14% being acutely malnourished. Almost 40% of people (adults and children) were not able to reach the recommended calorie intake. (USAID 2019). This is mainly attributed to the challenge Bangladesh faces in growing nutritious crops for its people. The primary cause for this challenge is the increasing population and resulting stress placed on the already limited water supply and land.

Water

During the wet monsoon season between June and September, rainfall is usually sufficient for rice to be grown. However, during the drought-filled monsoon season between March and June, the rice crop utilizes around 95% of the irrigation supplies present. Bangladeshi rivers, especially the Ganges River with the Farakka Barrage in India, are not reliable for access to water due to their seasonal variability. Surface water from rainfall becomes runoff ending up in the sea and recharging aquifers. With increasing populations and urbanization, there is increased stress on this already pressured system with reports stating that extraction rates of groundwater are much greater than its recharge rates. There are also higher levels of salinity in these supplies and pollution with contaminants like arsenic that make them essentially futile for use (Ismail 2016). With the already scarce amount of water from natural phenomena such as droughts, urbanization causes further reduction to amounts of water that could potentially be

used to grow crops. Properly managing the growth of urban areas would allow efforts to be more focused on adapting to environmental circumstances that contribute towards water scarcity.

Land

With 30% of arable land in Bangladesh on the coast of the Bay of Bengal, and sea levels projected to rise 20-60 centimeters by 2100 even with the best of implementations, the land dedicated towards feeding a massive population is destined to get inundated. This danger is further amplified by the increasing movement of people from rural to metropolitan areas of the country. Increasing urbanization naturally causes an increase in space dedicated towards building cities, and in the case of most internal Bangladeshi immigrants, slums. With more space being dedicated to urban sprawl, space dedicated to agriculture is forsaken. Ultimately, this urbanization, sometimes caused by climate change itself with devastating storms resulting in displacement of rural areas, exacerbates the limiting effects of climate change on agricultural land (Ismail 2016). Hence, implementing mechanisms such as floating gardens that many Bangladeshis have reported to be successful would diminish such extreme effects of the sea level rise. To some extent, this would both alleviate the problem of urbanization and reduction of arable land.

POTENTIAL SOLUTIONS

Directly attempting to reverse these effects of natural constraints on water and land in order to address the problem of food shortage in Bangladesh may not be as efficient as focusing efforts into a much more controllable causation – population. The most apparent solutions needed are effectively controlling the population and its growth and providing resources to empower rural people.

Women Empowerment

Population and its growth are directly tied to the situation of women, proven by the economic success of a multitude of local Bangladeshi governments investing in maternal health care (Ganguly 2020). In fact, family planning, contraceptives, employment, and education, all focused on women, have resulted in a significant reduction of the country's fertility rates from approximately 7 children a woman to 2. However, as discussed earlier, the large number of young yet mature women being married off and eventually turned into mothers is something that needs to be reduced even further in order to cause change. This can be done by implementing organizations such as Girls Not Brides that already raise awareness amongst teenage girls in order to teach them to refuse early marriage (Haast and O'Brien 2019). Like Girls Not Brides, the MDG-Fund, World Vision, and USAID have launched campaigns to stop the prevalence of child marriage in Bangladesh. The Bangladeshi government itself is also committed to revising its laws and working on enforcing them to make sure girls are not forced into early marriages. Supporting these organizations would be effective because of their unique structure that partners with local member organizations such as Plan International, an INGO (International Non-Governmental Organization). Such local institutions hold events and programs specific to the context of their communities providing resources necessary for preventing child marriage. Another distinctive aspect of these organizations is their emphasis on the leadership of female youth to drive

efforts in advocacy. By giving power directly to the demographic that needs it, the organizations establish the setting for discussions between female youth and official authorities who can facilitate desired changes. By having the aid of these organizations, women are more engaged in their education and profession, and in the event that they do raise a family, they possess the resources to successfully support children. However, in a male-dominated society, support for women often comes only with the permission of fathers and husbands, which can be accomplished with incentives, social reform movements, and more education programs that teach them the benefits of encouraging women and the immense cost of not doing so. Indeed, pregnancies in Bangladesh that are unwanted usually happen due to opposition from women's husbands due to religious and social prohibitions (Khan et al. 2020). An important note to consider is that employment anywhere does not necessarily correlate to female independence. Only the employment of a woman outside of the grasp of a dominant male in their household truly leads to a path of female autonomy. For example, working on a husband's farm does not put a woman in a position of liberty (Behrman and Gonalons-Pons 2020). By making these changes, it would be much easier to contain the effects of a much slower growing, if not declining, population that would in turn have less urban sprawl and hence, more land dedicated to agriculture.

Rural Empowerment

Another effective way of countering urban sprawl is encouraging the development of rural economies beyond agriculture. This diversifies the options for poor communities and provides stability to their growth, ensuring financial security and in turn food security. In fact, a large majority of the reduction of poverty in Bangladeshi rural areas has been due to profit in service and industry sectors outside of agriculture (Sen 2019). We must find methods to involve women and young generations to overcome the gender gap in poverty and provide economic confidence which further encourages them to make contributions to rural areas. The empowerment of women through microloans in the garment industry has proven to be successful to the economy and therefore encourage them to not abandon their homes and contribute to urban sprawl (Ganguly 2020). Another effective way of increasing the livelihoods of rural people but also directly increasing agricultural productivity is through incentivization. By providing incentives to rural farmers, they are more likely to put in quality effort that results in excellent harvests for greater rewards. A prime example of this are foreign aid programs that involve farmers directly in private trade sectors and encourage them to form businesses (USAID 2019). This would both counter urban sprawl by encouraging farmers to stay in rural areas and decrease food shortages by allowing farmers to afford advances in production with the money they earn from harvests. However, it would be unrealistic to expect every rural person to not migrate to urban areas by just implementing these solutions. Therefore, there must also be solutions in place to successfully transition these rural migrants into urban areas without having them fail to adapt to a new environment and end up forming slums. Of course, the best way to do this is to teach and train rural migrants the skills necessary to properly lead themselves in an urban environment. By introducing education programs that accomplish this goal, rural migrants would be able to conduct themselves in a way that would enable them to get well-paid jobs and avoid having to live in crowded slums with minimal services that stress the environment and ultimately, the ability to grow food. In these education programs, volunteers with experience in urban areas can offer courses in fiscal discipline, emotional intelligence, civic engagement, health, and general skills needed to adjust to an urban society. In addition, there should be specific employment preparation courses that teach the prerequisite skills for a fairly well-paying job, given the awareness of occupations they can train for. By partnering with the Bangladeshi government and other prominent institutions, subsidies could be provided to graduates from the program. These

subsidies would in turn be used to help settle down in a house with basic human services such as food, running water, security, and disposal systems. Peer to peer education with alumni of the program serving as volunteers to support newcomers is the key to this program's success. Because of this, the education program would be an innovative grassroots effort integrating the voices of local Bangladeshis. Furthermore, in urban areas themselves, having vertical gardens along with other similar conservation programs would reduce the need for having separate urban land and rural land. Instead, urban expansion could continue without such detrimental loss to land that would produce food.

CONCLUSION

Bangladesh's geography and climate inevitably subject it to a loss of water and agricultural land. The current situation of population worsens these effects through urbanization and environmental pressure and in turn, food shortages. However, by empowering women to reduce population growth and supporting rural people, these effects can be drastically mitigated. The country's future depends on people's ability to help others climb the socioeconomic ladder.

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