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Efficient, Inclusive, Sustainable: Urbanization in China

Introduction

Excessive population growth is an extremely serious problem facing the contemporary world. The population problem is an important question that touches upon the survival and development of the Chinese nation, the success or failure of China's urbanization drive, as well as the coordinated and sustained development between the population on one hand; and society, resources and the environment on the other (6). China has over twenty one percent of the world's population, with only eight and a half percent of the world's arable land, and just six and a half percent of the world's water reserves – and 1.3 billion people to feed ("The World Factbook China"). Population growth has raised exponentially; doubling since 1960 with an expectant 1.462 billion people by the year 2030. Not only is the population at record levels, but it is skewed towards a rapidly ageing demographic to the point that in 2030, there will only be two workers for every one over the age of sixty ("Opportunities for China and Australia in Food Security"). In spite of all of the pressing issues involved with population growth and the demographics at hand, China has managed to have record growth with over five hundred million people now out of poverty by allowing people to migrate to urban areas to make a better living ("Urban China: Towards Efficient, Inclusive, and Sustainable Urbanization"). Agricultural policies, the prices of certain food commodities such as wheat and grain, and economic development hugely impact food security, but demographic trends also play an important role ("Why Population Matters to Food Security"). China's urbanization is likely to strongly affect two important aspects of food security: the aggregate availability of domestically produced food, and the access of vulnerable individuals and households to food ("Urban China: Towards Efficient, Inclusive, and Sustainable Urbanization"). Food security is achievable in China through an efficient, inclusive, and sustainable urbanization reform.

Structure of an Urban Family

Throughout the Chinese society, the predominating ideal family type is comprised of a multigenerational, extended family living together and descending through the male line ("The World Factbook China"). The typical family is comprised of three people, most of which include an elderly individual. In this family system, children (especially males) are supposed to take prime responsibility for providing financial security to their parents during old age ("Urban China: Towards Efficient, Inclusive, and Sustainable Urbanization"). Contrary to the traditional pattern in which married sons carry the major responsibility of supporting their parents, married daughters actually provide more financial support to their parents nowadays ("Urban China: Towards Efficient, Inclusive, and Sustainable Urbanization"). As one can tell, China has a large elderly population – which is partially a result of the one-child policy enacted throughout the country. The one-child policy is a highly ambitious population control program, and although it has recently been eased to allow for two children; many say they will remain with only one child due to the high cost of living and raising a family in China (Dave Levin). The policy combines public education, social pressure, and in some cases coercion to control the population (Haiyan Zhu). Any family that participates and pledges to not have more than one child receives financial benefits, longer maternity leave, and better child care ("Urban China: Towards Efficient, Inclusive, and Sustainable Urbanization"). In urban China, raising a child requires a large portion of family income and couples with only one child are given preferential treatment in housing allocation; therefore, the typical urban family has only one child as there are many perks to this lifestyle (Dave Levin).

Increasing numbers of people often drive up demand for food, which typically results in additional use of arable land and water; a resource China has very little of. The Food and Agriculture Organization projects that by 2050, population and economic growth will result in a doubling of demand for food globally

("Why Population Matters to Food Security"). As demand increases, China strives to maintain selfsufficiency with grain products and to keep the price down for urban consumers by working with rural agriculturalists. Depending on the income of the urban family, their diets may shift towards meat and animal products that are more expensive and resource – intensive to produce. Almost all consumers in China have a diet that consists of grain products, as these are a staple food item within this country. Demand for more expensive foods such as fruits, vegetables, and animal products rises more rapidly with income growth, allowing urban families with more money to purchase a wider variety of food products. ("Urban China: Towards Efficient, Inclusive, and Sustainable Urbanization").

Just as important as having a healthy diet is to a person's wellbeing, education in China is a worthwhile investment to a large majority of Chinese families and parents. The Chinese school system is a state-run system of public education overseen by the Ministry of Education. All citizens must attend school for a least nine years, known as the nine-year compulsory education, which the government funds. It includes six years of primary education and three years of junior secondary education; which a large majority of students complete (5). China has a well-respected education system internationally, with thousands of students around the world choosing to pursue higher education within the country; whereas, Chinese students tend to score higher than the United States on standardized testing. Urban education, however, is much better than rural education offered in the country. China is working to reform and make education an equal opportunity for all students, regardless of where one may live.

In addition to equal education for all, China is taking steps towards its goal of providing every single person in the country with access to modern health-care services. Approximately one hundred and forty million urban residents, a third of the total urban population in China, are covered by a workplace-based health insurance called Basic Medical Insurance ("China Population 2014"). In the past, citizens had to pay large 'out of pocket' costs/fees towards health premiums and routine appointments – today, insurance has a better structure to prevent large fees to consumers; however, it still has a long way to go to become an ample insurance provider for all of the Chinese population ("Haiyan Zhu"). Basic Medical Insurance, while it may not be the best, continues to be modified and improved upon in order to provide the best coverage for China's citizens.

To complement the high quality food products, state-of-the-art education, and access to modern health care services urban consumers enjoy, the employment opportunities and wages of urban China are highly competitive in an ever-changing contemporary world. In most other countries, the urban-rural income ratio is 1.5 to 1; but the situation is entirely different in China. Statistics show that in 2003, the income of farmers in China averaged 2,622 Yuan (approximately US \$316.67) while that of urban residents averaged 8,500 Yuan (approximately US \$1,026.57) – more than three times that of their rural counterparts ("Rural and Urban China – Worlds Apart"). The typical urban worker averages forty hours per week with a competitive wage; whereas rural employees may work more hours to receive less pay (2). The urban lifestyle is becoming increasingly more popular, allowing for more job opportunities and resources than the rural location may provide.

Globally, the **world** is becoming more urban. Although urban residents have access to a wider array of foods, without land to farm, their food security is dependent on their income and ability to purchase food products ("Why Population Matters to Food Security"). Most urban households in China rely on food purchases; therefore, low-income households that spend a large share of their incomes on food can be vulnerable to increases in the availability and prices of staple foods ("Urban China: Towards Efficient, Inclusive, and Sustainable Urbanization"). Poor urban families typically spend up to sixty percent of their budget on food, and low incomes combined with high prices can further increase their risk of hunger and food insecurity ("Why Population Matters to Food Security"). Urbanization in China has contributed not only to increasing the self-sufficiency of the country as a whole, but also to the food security of individual citizens. Eighteen major cities satisfy eighty percent of their vegetable demand and a significant

percentage of total chicken and fish demand through urban agriculture. In China's Hong Kong Special Administrative Region it is estimated that two-thirds of the poultry, one-sixth of the pigs and close to half the vegetables are produced within the city limits ("China Population 2014"). Urban gardens are the principal source of vegetables for many of the major urban markets within China. Due to the increased population growth into urban areas, China works to ensure that its agriculture, natural resources, and food supply is being used and cultivated in efficient ways – such as through community and urban gardens (1).

Barriers through Urbanization

However, urbanization can create barriers to improving agricultural productivity which could be a problem for food security within the country. In order to expand its urban areas, China must take land used for agricultural/rural purposes and transfer it to urban land. Cultivated area in China accounts for only one tenth of its territory today. Although cultivated land in the United States makes up for only 20 percent of its territory, still its per-capita average is nine times that of China. The greatest pressure on China's agriculture industry, particularly grain production, is the continuous growth of the population and persistent shrinkage of the cultivated land. The United States and India, as well as China, are all major grain-producing nations in the world and China's agricultural productivity may be sacrificed if any additional land is taken away from agricultural purposes ("Why Population Matters to Food Security"). Urban employment opportunities are much more readily available than similar opportunities in rural areas. For a typical urban family, there are minimal barriers to employment at a living wage. Opportunities are consistently made available, as the cities continue to grow and expand throughout the urban areas of China. One barrier that may start to arise in China's largest modern cities is the amount of people compared to the employment opportunities available. As employment and a living wage are readily available, access to adequate nutrition and food markets is also easily accessible. A typical urban consumer can reach healthy, local dietary options through one of the various mediums: community periurban garden, food/farmers market, or private urban gardens (R. Marsh). While urbanization may temporarily create barriers to improving agricultural productivity, employment and earning a livable wage, and accessing adequate nutritional products, it also has the potential to secure China's financial and food security for decades to come.

The Effect of Urbanization and Population Growth on Food Availability and Quality

Demographic and structural changes that are occurring in China will impact China's food production and availability. Currently, China's food production is limited by water scarcity and, to a lesser extent, the availability of land; however, a new constraint – labor – is now on the horizon as more people migrate from rural to urban areas ("Urban China: Towards Efficient, Inclusive, and Sustainable Urbanization"). Urbanization and demographics have a large role on the typical family in China. Some families have been forced to relocate to urban areas in search of better job opportunities, a living wage, and better education - as these areas are oftentimes not equal in rural areas. It is important for the average citizen to be aware of the changes that are occurring in China, in particular those associated with urbanization, as demographics have and always will be a major influence on all citizens within the nation. Demographics, as a factor, are always changing. Urbanization is easily the most influential factor impacting China today and its present status reflects that. Today, there are more people than ever before migrating from rural areas to urban areas in order to experience a 'better life' for whatever reason. China has become progressively focused on urban areas and expanding them, as this has proved to be more effective in improving food security. By enhancing urban opportunities, migrants are able to get additional help for their food insecurity and thus contribute to the overall well-being of their families, communities, and nation as a whole (R. Marsh). Urbanization is continuing to increase and has been on the incline for the past decade; as China becomes a global figure of international relevance. Improving demographics and current urbanization patterns, as demonstrated in the recommendations, would be a wise choice for China's future plans. Urbanization, although on the incline, can have several negative side effects and it is imperative that China plan and coordinate appropriately in order to prevent such occurrences from happening.

Food security, as it relates to urbanization and population growth, can be impacted by a wide variety of other prominent issues affecting China and Chinese agriculture. Due to the variations in climate throughout China, the impacts of climate change on temperature, precipitation, and agricultural productivity are likely to diminish food security ("Why Population Matters to Food Security"). Climate change and extreme weather have an important impact on food security, however, its influence will differ depending on the nature of each agricultural sector and geography of the area ("Opportunities for China and Australia in Food Security"). The food supply can also change as a result of high prices for energy, which raises prices throughout the supply chain and, in turn, increases consumer cost making food more expensive for the typical family. Climate change can happen at a faster rate as a result of greenhouse gas emissions and pollution. China is now the largest emitter of greenhouse gases in the entire world, and in the decade up to 2010, growth in greenhouse gas emissions had accelerated immensely ("Urban China: Towards Efficient, Inclusive, and Sustainable Urbanization").

Impact of Major Issues on Demographics and Urbanization

One of the largest issues impacting demographics is the standards of living from rural to urban communities. Urban consumers have a better lifestyle, as insurance, education, and a living wage are easily accessible and available in large city areas. Rural citizens, however, may be forced to walk substantial distances to and from a public school, work longer and harder for an equal paycheck to that of an urban individual, and can suffer immensely from the adverse impacts of urbanization. As more citizens migrate to urban areas, the amount of people available for labor in the agriculture sector is dwindling – which could eventually become a considerable issues in years to come.

Efficient, Inclusive, Sustainable Urbanization: The Answer to Improving China

Urbanization has been both an advantage and challenge for the Chinese society; working to ensure food security through a thriving agricultural sector while enriching growing modernized cities is no easy task. In order to ensure that this nation is able to progress in a positive way, several recommendations have been acclaimed that can be used if necessary in the future. The recommendations given address the three main areas that the Chinese need to focus on, as they continue with increasing urbanization in the future. The answer to improving China and food security for the Chinese is through efficient, inclusive, and sustainable urbanization. By promoting better usage of China's productive resources (land, people, and capital), urbanization will grow in a positive, *efficient* manner. Some fear that the increased demand from a growing urban population for water and land could undermine China's food security; but, if done efficiently that will not be the case. Land lies at the heart of China's urbanization issues and is the highest priority. One of the links between urbanization and agriculture that has received the most attention is the conversion of agricultural land into urban land; a complex issue in itself ("Urban China: Towards Efficient, Inclusive, and Sustainable Urbanization").By making this transition efficient, urbanization in China will be more economically stable and provide more opportunities for those wishing to make the switch from a rural to urban lifestyle. China should adjust its food security objective towards maintaining self-sufficiency in food grains while allowing for more imports of nonfood grains and other agricultural products ("Urban China: Towards Efficient, Inclusive, and Sustainable Urbanization"). By setting food security objectives, China will be much more efficient in ensuring food security, as it becomes more urbanized. It is unrealistic to expect to reach full self-sufficiency with the land availability that China currently has, and therefore the country should focus on maintaining a strong grain sufficiency to increase the nation's food security.

Granting all people equal access and equal opportunities through *inclusion* is the next step China needs to take in food security. Specifically, the government's role will be:

1. To improve policies that allow rural migrants to become urban citizens, thereby simulating more permanent migration to urban areas.

2. To create the conditions for consolidated agricultural operations and improved labor productivity in rural areas ("Urban China: Towards Efficient, Inclusive, and Sustainable Urbanization").

By focusing on those two objectives, urbanization in China can be inclusive and effective for both urban and rural citizens – and neither party will get hurt in the long run. Currently, as migration trends have shown, the amount of people moving out of rural communities into urban areas could make a substantial impact on the agricultural sector if agriculturalists are not being efficient in their practices and working to create a sustainable food supply by working with urbanization (R. Marsh). Migrating out of rural areas into China's cities needs to be flexible for both parties, as opposed to being an advantage for urban China and a struggle for the rural communities within the country. Increased investment in the nonagricultural sector creates jobs and creates incentives for qualified workers to move; and therefore should be an important focus of China in its fight against food insecurity. Instead of solely focusing on urban areas, China needs to also focus on rural and agricultural environments to truly ensure food security and positive urbanization.

Lastly, urbanization and the impacts of population growth need to be supported by the environment and sustainable while providing a good quality of life for urban residents. By focusing on promoting sufficient and inclusive urbanization, sustainability will naturally occur. Urbanization needs to last through hard times and food insecurity, and it can do so through instilling effective practices into the lives of urban and rural citizens starting now ("Rural and Urban China – Worlds Apart"). By educating Chinese consumers about various agricultural practices that are relevant based on where they live (community gardens for urban areas, large scale operations and less land usage for rural), urbanization can become sustainable while promoting the environment and supporting the agriculture industry. By focusing on effective, inclusive, and sustainable future urbanization reform, China's modernization will see heights it has never seen before. While some may see it as a daunting challenge, urbanization can be both an asset and an opportunity for Chinese agriculture if used in an appropriate way. Through the recommended approach, China will be better able to work towards achieving one of the Millennium Development Goals, "to eradicate extreme hunger and poverty" for its citizens ("Opportunities for China and Australia in Food Security"). Focusing on agriculture and urbanization as both separate parts and as pieces that must work interchangeably will ensure food security for the Chinese nation as one depends on the other on a day to day basis. Some may see the extreme population growth as a problem with no solution or redemption; however, population growth can be an advantage for the country as it progresses as a global figure. Urbanization in China can work and be a very beneficial tool to combating food insecurity throughout the country. Through the use of efficient land usage practices; promoting inclusive behaviors and working towards equal opportunities regardless of residency; and being a steward of the environment through sustainability, China can use urbanization and demographics, as well as any challenges associated with them, for the bettering of the nation and global food insecurity.

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