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China, Factor 13: Demographics

China: Developing Rural China

Imagine back breaking work from dawn until dusk, in attempt to support yourself and your family. No matter how much you work, you will always be stuck in poverty. The only way out is to try to leave your farmstead and find a job in a larger city. This is the reality that farmers in China face. While tasked with the responsibility of providing food for the most populous nation in the world, they must also endure conditions similar to those in most third world countries. In order for China to grow and thrive, the lives of the rural farmer cannot continue to be this troubled.

1. Conditions in Modern China

China, with all its great wealth and influence, is known as a world power. Its massive cities and billions of people make urban China a symbol of the modern world. Urban China is the definition of a modern first world culture. Rural China, on the other hand, isn't the same modern vision. The conditions in rural China do not reflect the first world nation China is considered to be. Poverty in the sprawling urban cities is rare, but in the desolate rural region it is much more common. Rural China and urban China seem worlds away, even if just miles apart.

China is located in the Eastern hemisphere, just south of Russia. China's climate proves to be just as diverse as its demographics, from the tropical southern region to the subarctic conditions in the northern region. A portion of the Himalaya mountain range lies in China's far southern region, not only creating mountainous terrain, but also giving China some of the world's tallest mountains. The mountains are not the only category in which China boasts to have the largest in the world. With over one billion citizens, China also tops the list as the world's most populated nation. While the nation ranks first in world population, land wise China is the world's fourth largest nation, slightly smaller than the United States (CIA n.p.).

Chinese citizens living in urban China enjoy many of the modern convinces that can be found in other first world nations. From clean drinking water to modern sewage facilities, urban China is a picture of modern life. Urban China's infrastructure supports its high population; however, the infrastructure in rural China is not as advanced. According to the CIA World Factbook, 15.1 % of rural Chinese live without improved drinking facilities and an astounding 44.2% live without access to improved sewage facilities. While living in these conditions Chinese farmers still face the daunting challenge of feeding their urban counterparts. In fact, the life expectancy for females in rural areas versus females in urban areas is ten years shorter. Poor infrastructure is just the tip of the iceberg so to speak, of the challenges that rural Chinese face, causing this large difference in life expectancy.

Those in urban China have accesses to all the luxuries of modern life within a few minutes of travel at any given time, this is not so for those living in rural China. Cigna, a health service organization, reports that healthcare is widely available in Chinese cities. However this report also goes on to state that healthcare facilities in rural China are very basic, oftentimes they are unable to provide adequate care to their patients. Only a meager third of medical professionals practice in rural China (Ewing n.p.). The few doctors that do serve rural China receive little funding from the government. The Chinese government focuses the majority of medical spending in urban areas, with only one-fifth budgeted for medicine in rural areas (Ewing n.p.). Doctors practicing in rural areas do not have the funding needed to update

equipment and facilities, creating a lower standard of healthcare; many techniques and equipment used being obsolete.

China boasts some of the best education worldwide, however, it's rural areas are forgotten. The head of rural households has only had access to 7 years of education (Hengsdijk 3). This education is quite inferior when held in comparison with the education provided in larger Chinese cities. Only 22% of teachers in rural areas have four year college degrees, the bare minimum needed to teach in the United States (Baio n.p.). Even when enrolled in school, rural students are being taught using outdated material by teachers who do not have the knowledge or education to give students needed skills. The lack of education of rural teachers gives rural students a disadvantage from the very beginning.

The scarcity of educated teachers is just one of the many resources missing in rural schools. Many rural schools have insufficient or no modern equipment and facilities used to give students the education which is critical to the future. While urban schools have access to computers and additional educational multi-media technology, rural schools do not; meaning lecture is the chief educational strategy in rural schools. Students are deprived a diversified educational experience, making learning more difficult. In fact, many rural schools lack even the most basic of educational facilities. In the rural Ningxia Province, 17% of primary schools as well as 15% of middle schools do not have libraries (Biao n.p.). Reading levels of children from this are exceptionally low; the test scores in the language portion of college entrance exams are half of what is required for entrance to the majority of China's universities (Biao n.p.). Even with education, the substandard quality of schooling in rural areas thrusts rural students behind students taught in urban settings; leaving the rural students to continue the cycle of poverty and stagnant technology growth.

On top of little education, poor infrastructure and indigent healthcare, farmers are often considered to be on the lowest rung of Chinese society, their income and lifestyle directly reflecting this. Individuals living in rural China make about 5,919 renminbi per year. In American dollars that's around 900 dollars per year, or a mere $2.47 a day (Biao n.p.). While this is the average, over 120 million rural Chinese live under the poverty line of a dollar a day (Ewing n.p.). While living with very little, these farmers are still faced with the everyday reality of producing enough food to feed not only their families, but also their growing nation.

While urban China follows the one child per family rule, the rule often is not used in rural China as children are needed as farmhands. The average rural Chinese family contains 3-4 members (Hengsdijk 4). This is a fair size; however, it does not allow enough help to support the farms in which these families operate. Farming in China is very labor intensive, as many Chinese staples such as rice, cabbage, turnips, and sweet potatoes are grown without the use of modern technology (Wong n.p.). On average, families hire between 2-3 farm hands to help out with seasonal work, which is a large expense that must be taken out of the already little money being earned by the farmers (Hengsdijk 4).

All the poor conditions Chinese farmers withstand on a day to day basis is pushing a growing amount of rural Chinese out of the rural regions and into the massive Chinese cities. China's cities are growing at a rate of 2.85% (CIA n.p.) This may not seem like much but with China's massive population this number means an estimated 300 to 400 million Chinese will move to urban China within the next 30 years, making China a nation with 75% of its citizens living in urban areas (Urban Life in China n.p.) With more Chinese moving to cities, it leaves fewer farmers to provide for the nation.

2. Impact of pollution of Chinese agriculture

Along with the lack of rural service, Chinese farmers also face a massive environmental threat. Pollution in China's farmland is devastating, creating unsafe food for not only those who grow it, but also anyone who consumes it. Chinese industry has boomed in the modern era, now accounting for 45.3% of China's GDP, while the agricultural sector constitutes only a paltry 9.7% of the GDP (CIA n.p.). With the increasing economic value of industry in China, the government eagerly strives towards the growth of the industrial sector, providing ample funding towards the growth of industry. As factories and mines become abundant, so does pollution. As a result of the growing industry, agricultural soil and water are becoming contaminated with various nonferrous metals. These nonferrous metals are essential in industrial processes, producing products such as lead-acid car batteries (Wong n.p.). The heavy metal pollution is becoming increasingly widespread. One-sixth of China's arable land, around 50 million acres, is subject to soil pollution, including 8 million acres so polluted government officials have banned the planting of crops (Wong n.p.). Annually 13 million tons of crops harvested are contaminated by harmful amounts of heavy metals (Wong n.p.). Not only does this contaminated crop feed Chinese citizens, but a portion of it also is fed to livestock, creating tainted meat. Food safety is no longer just a concern; it has become a hazard to Chinese citizens, one that if not taken care of could effectively destroy agricultural production and food safety in China.

The Hunan Province provides a good example of this. The Hunan Province produces around 17 million tons of rice, accounting for 16% of China's total rice production (Wong n.p.). This region now suffers from massive amounts of pollution, endangering all who eat the food produced in the region. Cadmium is an industrial metal that has been linked with organ failure, weakening of bones, and even cancer (Wong n.p.). This metal can be found in large quantities in the Hunan, making food produced there incredibly dangerous to those who consume it. The Hunan Province alone accounts for an astonishing 41% of the nation's total Cadmium pollution (Wong n.p.). Residents of the area have reported high rates of cancer, in many cases even leading to death. The factories and mines producing this pollution are not being stopped or even investigated. It is extremely hard to protest against these companies as many local government officials are proponents of these factories because of their industrial economic benefits. While these factories are diminishing the environment substantially, government investment in Hunan industry is increasing. Recently Hunan officials have excitedly approved over 80 new projects growing the nonferrous metal industry. These new projects amount to a total investment of just under 10 billion dollars (Wong n.p.). While many farmers contract illnesses caused by excessive intake of heavy metals, and villagers live in fear of the increasing pollution and sickness, the Chinese government continues to approve new environmentally harmful projects. These new projects without a doubt will further increase the pollution of the Hunan region, one of many Chinese provinces with a significant pollution problem. China is continuing to urbanize, and is showing no signs of slowing down its urban and industrial growth, smothering the little hope Chinese farmers have.

3. Increasing dependence on foreign nations

While China's economy may be booming, agriculturally it is falling behind. It's a fact: Chinese farmers are no longer able to keep up with the demand of feeding 1.3 billion people. Roughly 20% of the world's food is consumed by China, while only having 9% of the world's farmland (Stone n.p.). With a growing population, increasing pollution, and low living conditions in rural areas, Chinese farmers simply cannot keep up with the demands under their current circumstances. China now has to import more food than ever before, importing nearly 3 times the amount of food they export and are quickly becoming the world's top importer of rice (Wong n.p.). This is due to the inability to produce enough food on Chinese land to feed the population of 1.3 billion people. Yet the Chinese government is still prioritizing the growth of the industrial sector, without looking into the growth of the rural agriculture sector.

Along with the increased amount of imports, China has started using a tactic that imitates colonization used in the 19th century. The huge growth of industry in China has provided a resource of significant importance: money. China is struggling to produce enough food with its polluted land, obsolete farming techniques, and large urban population. There are some countries, however, that have land in abundance to feed a smaller population of less urban nature. In September of 2013, China leased a record breaking amount of land from the Ukraine. China leased 3 million hectare, or about 7.5 million acres, of agricultural production land from the Ukraine (Stone n.p.). The amount of land leased by the Chinese government is so large that China is now leasing approximately one-twentieth of the total land in Ukraine (Stone n.p.). This lease allows China to produce food while having very little usable agricultural land of its own. Not only does the deal help China to feed the millions, but it also provides the Ukraine with large amounts of money. The deal injects 2.6 billion dollars into the Ukrainian economy annually, and it will continue to do so for the next 50 years (Stone n.p.). The Ukraine and China's needs match up well; China has money but no land while Ukraine has land but no money. The Chinese government's purchase of foreign farmland will not solve China's sustainability problem, but it will help to temporarily feed the 1.3 billion Chinese citizens. However, this record breaking lease has a major downside. China is now outsourcing farming, relying on unstable nations in order to fill their food needs.

Both the increased imports and foreign land leases create another problem: foreign reliance. Food is a necessity, so relying on foreign nations for food is a terrifying thought. If China was cut off from its food supply, the repercussions would be severe with possible famine and starvation. Embargos and political tensions are a threat, especially when the land purchased by China is in such an unstable region. Recent events in the Ukraine make China's land deal a questionable situation. China now depends on countries like this for food, one of the basics to life.

4. Possible Solutions

In order to combat China's growing population and decreasing quality of life in rural areas, a multitude of issues must be faced. Everyday farmers and rural Chinese in general live in dreadful conditions. Improving living conditions in rural areas requires vast amounts of money, money which the Chinese government alone cannot provide. Private investment into small farming communities has proven itself to be a viable component to a better rural China. Cargill in particular has developed a model which not only provides safer food, but also gives farmers a reason to stay in rural areas rather than immigrating to larger urban areas. Working closely with government officials, Cargill has developed an approach to chicken processing which helps food safety as well as bettering the communities in which the facilities operate. Their first step was purchasing 750 acres of land belonging to around 1,200 different farmers (Weber 17). The company then negotiated 15 year contracts with the farmers, paying them whatever they were making from the land before its purchase. Cargill then built facilities in order to oversee the entire poultry production process. Cargill now has 40 different sites, a feed mill, pullet farm, breeder farm, hatchery, 35 grow-out farms, and a primary processing plant.

In order to build these facilities Cargill had to invest not only in the facility and the farmers in it, but also new road, electricity and various other elements of infrastructure. Along with bettering infrastructure, Cargill's business model has also made great strides in food safety. By overseeing the entire production process, Cargill is able to meet the corporation's rigorous safety standards achieving a level of food safety not previously seen. This level of food safety gives Chinese consumers faith in the food supply, faith that had been shaken tremendously before Cargill's efforts.

Finally, Cargill's investment in rural China has given the citizens jobs, giving them a steady income. Between all their sites, Cargill's facility employs 3,100 people, with a goal of 4,000 employees when the

plant has reached full operation strength (Weber 20). Not only does the facility give farmers compensation, but other rural Chinese, injecting needed money into the rural economies allowing communities to grow and develop. Kenneth Zhang, the human resources director for Cargill Animal Protein China, summarizes the effects Cargill wishes to apply, “In the past people left their families to go work in other regions. We want to give them a reason to stay.” Cargill’s business model shows the effectiveness of private investment in rural China. The more money invested into the rural regions, the better conditions there will become, creating an agricultural system that can safely provide food for the massive population of China.

5. Government responsibilities

The Chinese government focuses on the growth of industry as opposed to the growth of agriculture, putting rural lives and food security nationwide at risk. In order for China's rural issues to improve, the government must rearrange their priorities. Industry must be monitored to ensure no contaminants reach agricultural ground. While this may mean industrial areas will have to be watched closer and there may be a possible decrease in the amount of pure profit earned, there is nothing that is worth the poverty stricken lives rural Chinese have to live because of the damage done by these factories. The Chinese government is now having to import more food than any year prior and is even leasing farmland in other countries. This shows the government of China has ample funds to invest into agriculture, but they choose to invest it in foreign nations and industry.

Along with policy changes favoring agricultural investment, the government of China also needs to look into further funding of the development of rural areas. By creating better conditions in rural China, farmers will have reason to stay and farm instead of being forced to migrate to urban areas. Not only will development give farmers reason to stay, but improvement in education can lead to better farming techniques and agricultural advancements, allowing farmers to produce more to feed the massive nation.

The government's role in bettering the lives of rural citizens is to provide funding for better education and healthcare, and to ensure the growth of industry is not over polluting China's farmland. China has an oversized budget allowing for investment in industrial growth, this budget could be made very powerful in reversing pollution if a portion of that budget was relocated to reversing the pollution in rural China, allowing for farmers to increase food safety and productivity. By investing into rural China, agricultural production can flourish, allowing China to rely less on other countries and more upon themselves. Partnerships between government, community, and organizations can create a better China, giving a new, more enjoyable life to those who live in the poverty of rural China.

6. Conclusion

Creating stronger rural communities is critical to feeding China’s future. In order to fight poor rural conditions, growing pollution, increasing urbanization, and unstable food safety, partnerships between private industry and government must be formed. Investment must be injected into rural economies in order to develop these crucial agricultural regions. Cargill’s community focused business model provides a higher quality of safe foods, better rural infrastructure, and a reason for Chinese farmers to stay in rural China. If more models like Cargill’s reach rural China, the effect on rural communities would create a better China. Not only must private industry invest in rural China, so must its own government by doing more to prevent pollution while also investing in rural China. This needs to be a priority to the Chinese government. With better conditions for rural farmers they will be more likely to continue farming and producing food, giving China its own safe reliable food source. After all, if there is one commodity not a single human can life without, it is food.

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