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Urbanization and Social Policy Reform in Post-Mao China

As of August 16, 2010, China surpassed Japan as the world's No. 2 economy, with a GDP grossing \$1.34 trillion during the April-to-June financial quarter. This gilded financial statement, however, is a stark contrast to China's average per capita income of a mere \$3,600 and the increasingly precarious guarantee of food security in this developing country. With its population of 1.3 billion, China faces unprecedented challenges in providing sustenance for its people, especially as the Chinese government continues its policies of accelerating urban development. Although urbanization is an inevitable consequence of modern economic development, the rapid, uncontrolled urbanization and rural migration policies in China have become a threat to social stability, and most importantly, food security for the country's 1.3 billion people. Urbanization is not simply farmers migrating to cities overnight, but rather, it is a complex and gradual process, entailing compatibility with a nation's infrastructure, social policies, and agricultural stability.

In modern countries, urbanization has a variety of positive effects, including rapid increased economic growth in the case of China, whose economy is now No. 2 in the world as a result of its urbanization-induced economic growth. However, urbanization in China has yielded a number of negative effects: the largest urban-rural divide in history and the rapid loss of arable farmland, all contributing adversely to agricultural productivity and ultimately, food security in China. Until the last decade, China was, for the most part, able to feed its own population of 1.3 billion; before 1998, China produced an annual grain surplus of 5 million to 10 million tons. Between 1998 and 2006, however, China's grain production decreased by about 80 million tons. By 2003, grain production had become 56 million tons short of total consumption, and grain totals remained far below the 1998 peak level of 512 million tons (Stage). If the current rate of urbanization continues, China may have to depend increasingly on imported agricultural products to meet its domestic needs. This poses a potential threat to the country's food security if the problem of rapid, uncontrolled urbanization is not effectively addressed.

As a developing country with the world's second-largest economy, China has had a relatively short time period of economic and urban development, beginning in 1978 Post-Mao China after Chairman Mao Zedong's death marked the end of the ten tumultuous years of the Cultural Revolution. During the Cultural Revolution, urban population growth declined substantially because of the "rustication" movement of urban youth to the country and other social cleansing practices. After Mao's death and the end of the Cultural Revolution in 1978, however, a number of social and economic reforms were launched, greatly accelerating the growth of urban populations. Furthermore, the inflow of foreign direct investment created massive employment opportunities, fostering an additional influx of urban residents. Compared to the rest of the world, China's current urbanization rate (percent of the population living in urban areas) of 47% is still well below that of other developed countries and regions. The United States of America, the United Kingdom, and Japan have urbanization rates of 82%, 90%, and 66% respectively. Although China has a relatively low urbanization rate compared to developed nations, the speed of urbanization in China is unprecedented. China's urbanization took 32 years to increase from 18% to 47%; it took Britain 120 years, the US 80 years, and Japan more than 40 years to accomplish this same feat (McGinley). The unprecedented speed of urbanization in China has adversely affected various facets of social and economic stability, contributing to the worsening threat of food insecurity in this nation of 1.3 billion people. To lessen and ameliorate the negative effects of rapid urbanization and population growth, it is vital to analyze the nature of these effects and employ solutions that include the "smart growth" of cities' infrastructures, the development of smaller cities, and appropriate social reform.

One of the immediate effects of China's urbanization policies is the increasing disparity between urban and rural incomes, traditionally called the urban-rural wealth gap, which has become a great threat to the nation's social stability. This wealth gap occurs because urbanization increases and improves urban land use, urban infrastructure, and socio-economic benefits received by urban residents, thus widening the preexisting disparity between urban and rural regions in China. According to the Chinese National Bureau of Statistics, in 2009, the urban per capita net income stood at 17,175 yuan (\$2,525), in contrast to 5,153 yuan (\$766) in the countryside, with the urban-to-rural income ratio being 3.33:1 (Chen). This income disparity brings about inequalities in the social and economic benefits received by urban and rural citizens; those with urban "hukou" (the household registration system in China) have significantly more benefits, including that of better social security, healthcare, employment and educational opportunities.

The Chinese household registration system consists of two different types of hukou: agricultural (rural) and non-agricultural (urban). The purpose of having these two types of household registrations is for centralized labor allocation, to keep as many rural people farming as possible. Under the partially hereditary hukou system, an individual (one of some 800 million rural residents), once born in a rural household, cannot enjoy the social, economic, and cultural benefits available to his urban counterpart unless if he were to give up his small plot of farmland and find employment in a city. To find urban employment is often an insurmountable obstacle for rural citizens, as they lack both the wealth and the prerequisite educational background to find work because of the urban-rural income/benefit disparity, which is in turn caused by uncontrolled urbanization policies. Thus, to lessen the urban-rural wealth gap would require policies of controlling and curtailing urbanization.

The urban-rural wealth gap is a significant barrier to improving agricultural productivity and food security because it subjugates more than half of China's population (53%) to poverty (Chen). Coincidentally, or perhaps not so, these 800 million some rural smallholders are the basis of China's agricultural exploits; by rendering them impoverished, rural agriculture faces the major productivity barrier of poverty-induced reliance on subsistence farming. Sixty percent of China's grain is produced by 200 million small peasant households that are self-sufficient in grain consumption, but the per capita grain output has steadily decreased from 412 kg in 1996 to 378 kg in 2006 as the urban-rural wealth gap increased (Cai). A typical rural subsistence farm family has 1.39 mu (0.09 hectares) of farmland per capita, only a third of the global average. Consequently, the rural family utilizing this cropland can only grow enough for their own consumption, with a small surplus that is usually sold at a low price at itinerant markets. In more impoverished regions with fewer natural resources, some rural families are unable to grow even enough crops for their own sustenance. The urban-rural wealth disparity and the inability of rural farmers (the basis of agricultural production in China) to sustain themselves poses a dilemma for future food security.

A typical rural susbsistence farm family in China is comprised of four or more people, possibly an extended family, all reliant upon farming a small plot of land for living. It is not uncommon in rural areas to see a family with mostly women tending fields and operating machinery; the men often venture to nearby cities as cheaply-hired migrant workers. This hypothetical family produces a wide variety of products including rice, wheat, potatoes, sorghum, peanuts, tea, millet, barley, cotton, oilseed, pork, and fish. Since commercialization of food has increased 7.4 percent per year from 1994 to 2006, the family relies on self-production for staple foods like grains, fruits, and vegetables, while non-staple foods like fish, meat, and eggs are commercialized.

The small-scale marketing plan for most rural families consists of selling surpluses to either the village market or a larger market town. Often, there are itinerant periodic markets within the village where rural peasants call also sell their goods. Following the cycle of goods within the economy, much of the rural surpluses are sold in urban markets. With China's accession into the World Trade Organization in 2001, many trade tariffs have been repealed or reduced. There have been increased opportunities for export of agricultural goods. As a result, grain production has decreased in favor of cash crops of vegetables and

fruit for domestic and export trade. Despite government efforts to increase growth of grain, increased growth of cash crops can only be detrimental to China's ability in the future to maintain grain independence.

Because of China's rapid urbanization and consequent wealth disparity in urban vs. rural regions, the rural exodus of farm laborers into urban areas is another barrier to increased agricultural productivity. It is common knowledge that agriculture, regardless of whether conventional or industry-based, requires the employment of manual laborers. In rural China, since most farming is done on a small-scale and consists largely of "subsistence farming," manual labor is especially important in operating machinery or tending fields. Over the past decade, more than 200 million rural residents have entered the cities through official or unofficial migration, and the share of agriculture in employment has declined from 326 million in 1998 to 270 million in 2008 (Herd). These statistics show that less than one quarter of the rural population has migrated to urban areas; however, as the Chinese economy continues to develop rapidly, these statistics suggest vast potential for further migration as the rate of urbanization increases. This is the plight of migrant workers, an unofficial social class consisting of an estimated 120 million, about 9% of China's population. The one biggest factor influencing the migration of rural laborers to find work in urban areas is poverty, and such is the case in China, as rural poverty caused by unequal urban development instigated the migration of rural workers to cities in attempt to find better employment opportunities. As migrant workers enter cities, their hukou are still agricultural (rural), and they are not permanent urban residents; however, their migration into cities gradually results in the depopulation and decline of rural regions.

The solution to both the problem of urban-rural wealth disparity and the ensuing issue of migrant workers is social policy reform, especially in the hukou registration system. Towards the end of January this year (2010), the Chinese government promulgated the Communist Party's 'No. 1 Central Committee Document,' which stipulated plans to reform the hukou system. Although this document advocates a necessary social reform, the plans are to allow a portion of rural migrants to settle permanently in only small and medium-sized cities (cities with populations less than 500,000). This plan clearly disregards two important problems: (1) opening up relatively small cities to hukou reform is far from enough, as a significant proportion of China's migrant workers are employed in much larger cities, and (2) hukou reform should not only target migrant workers but also rural smallholders, as this is the best way to lessen the urban-rural wealth gap, which is a problem because it contributes negatively to food security (Chan). To abolish the hukou system of urban-rural "segregation" would be feasible and unrealistic. The idealistic result of abolishing the hukou system would be a society of urban-rural harmony; however, this would inevitably lead to the drastic overpopulation of China's largest cities (metropolises such as Beijing, Shanghai, and Guangzhou), which would counteract the core issue of urbanization that hukou reform aims to ameliorate. Therefore, to solve the hukou reform problem would ideally entail a two-step process.

First, the Chinese government should consider opening local urban hukou registers to skilled migrant workers with regular employment. In theory, this creates a mutually beneficial scenario; the government and urban industrial employers need skilled workers to operate sophisticated machinery and increase manufacturing output, and these skilled migrant workers can thus earn more money to contribute to urban taxes and fund social services. Furthermore, migrant workers receiving local urban hukou would healthcare, social benefits and education opportunities for posterity, thus lessening the problem of poverty in China's urban-rural wealth divide. Second, the more difficult and broader reform is to create social policies that foster urban-rural equality. At China's Communist Party Congress of 2007, party leaders pledged to give equal voting rights to urban and rural populations, and last October, the National People's Congress decided to amend China's current election policy for equal representation to rural and urban populations. Although this beginning to reform is largely symbolic in China's complex political system, further improvements should eventually have the concrete and practical effect of giving both urban and rural populations the electoral system of "one head one vote" (the current ratio is 4:1 in favor of urban populations).

In addition to the social problems of the urban-rural wealth gap and the plight of migrant workers, another negative effect of rapid urbanization is the loss of arable land. China feeds 21% of the world's population (1.3 billion) with only 9% of the world's arable land, which constitutes the rural regions where small plots of cropland are tended by impoverished rural farmers. Between 1996 and 2008, total cultivated land has decreased approximately 8.35 million hectares (according to statistics from the Ministry of Land and Resources of China); a typical rural subsistence farm family has 1.39 mu (0.09 hectares) of farmland per capita, almost a third of the global average (Praendl-Zika). This current statistic is a 6.4% decrease from 1998's per capita farmland of 1.59 mu (0.11 hectares), mainly as a result of China's urbanization policy, which increases the area of urban land and encroaches upon rural land used for agricultural purposes. The increase of urban land area consists of two aspects: the increase in number of cities and the expansion of existing cities. The increase in the number of cities reflects the emergence of new cities and towns, which requires land resources from agricultural use to be allocated for construction use in urban infrastructure. As a result, the area of arable land used for agriculture in rural regions is greatly decreased, leading to smaller per capita croplands and lower agricultural productivity.

Combined with the social problem of urban-rural wealth disparity and the loss of agricultural laborers due to the rural exodus of migrant workers, the loss of arable land due to urbanization creates a huge barrier for increased agricultural productivity and food security in China. China's arable land totaled 1.83 billion mu (122 million hectares) in 2009, close to the bottom line set by the government at 1.8 billion mu (120 million hectares). China is feeding 22% of the global population on less than 9% of the world's cultivated land; per capita arable land in China is only half of the world average. Urbanization poses an acute stress on China's land resources; in 2007, China lost almost a quarter of a million hectares of arable land mainly to urbanization, and this trend is projected only to increase as the population grows and urbanization continues unabated.

As of 2010, the Chinese government has a stated policy of securing enough arable land to support its predicted future population peak of 1.6 billion in 2030 (according to the National Bureau of Statistics), and has attempted to limit urban expansion onto arable land as a part of this policy. Although this may suffice in the short term, it is not enough to guarantee sufficient land, sustainable agricultural productivity, and food security in the future. Coupled with rural poverty due to the urban-rural wealth gap, the loss of arable land is directly correlated with lowering agricultural productivity in rural smallholder farms as urbanization continues to increase rapidly. This has already become apparent in coastal provinces of Southeast China like Jiangsu and Guangdong, which witnessed grain output drops of nearly 30 million tons in 2003 from the 1998 level, due to loss of arable land to urbanization (Yan).

A short-term solution to the problem of arable land would be to consolidate and improve rural farm infrastructure (irrigation, farm road systems, plot dimensions, and farm size). Past studies have shown that land consolidation may improve land productivity and labor productivity, ultimately resulting in lower food prices. From 2000 to 2004, the Chinese government's Ministry of Land and Resources commissioned several hundred projects in poor rural villages aimed to consolidate fragmented and underused land and reclaim land damaged by natural disasters and erosion. In addition, the United Nations Development Program aided the government's efforts in sponsoring several demonstration sites of land consolidations in rural regions. These collaborative efforts were able to utilize fragmented or marginalized land parcels and benefit poor farmers by offering them low-interest land loans and contracts. In recent years, as China's speed urbanization continues to increase, such collaborative projects have slowed; on the contrary, they should be increased and maximized to mitigate the negative effects of urbanization on arable land.

Although the short-term solution of land consolidation can be effective in slowing the loss of arable land and increasing agricultural productivity, and hukou reform can aid in lessening the urban-rural wealth gap, they are not permanent and conclusive solutions to guaranteeing future food security in China. The ideal

solution, simply stated, would be to empower impoverished rural smallholders, thereby enabling them to increased opportunities of education, use of resources and land, which would all in turn contribute in a positive proportion to China's overall food security. As a country with a strong and growing economy, China's urbanization is an inevitable and economically beneficial part of its development. However, if urbanization policies are not executed in a manner that is consistent with the nation's infrastructure and social policy (among other things), the inevitable result is environmental degradation, social instability, and, ultimately, food insecurity. Thus, a sensible approach for the Chinese government and related organizations would be to (1) employ smart growth policies of urban development, (2) develop small cities and towns, and (3) encourage peri-urban agriculture.

"Smart growth" is a term coined in recent years, referring to an urban housing and infrastructure planning theory that concentrates urban growth in the center of a city to avoid urban sprawl and promote efficient land use. Because of widespread rural poverty and migration, Chinese cities have expanded spatially to uncontrolled dimensions in recent years, resulting in urban sprawl that encroaches upon more and more agricultural land. In order for smart growth to effectively correct the problem of urban sprawl and inefficient land use, several principles of smart growth should be adhered to. First, development of urban infrastructure should focus upon improving existing urban communities rather than razing down forests to build new cities. City governments, investors, and developers should ensure that public investments and building projects are first targeted at existing urban infrastructure. Second, providing quality housing opportunities for different income levels at reasonable density can help ensure the concentration of urban residences. Finally, development of urban districts should include a mix of land uses, including stores, businesses (firms), and homes, making urban life more convenient and concentrated. Ideally, such smart growth policies should work to focus urban development on quality, and not quantity, and help to adjust China's current urbanization trend (Appleyard).

The Chinese government should formulate policies to develop small cities and towns in rural areas. In the past decade, township enterprises have grown quickly in small cities, hiring over 100 million employees and accounting for half the national industrial input. This not only gives rural residents opportunities to access the market economy but also provides them with the conveniences of city life without becoming a burden of overpopulation for larger cities. This will also increase agricultural production, as small town infrastructure does not superimpose over arable land but provides farmers with better resources, transportation mechanisms, and market opportunities. Small towns also act as a transitioning step from rural to city life in that it can help, along with hukou reform, to lessen urban-rural disparity. In addition, small towns allow for more gradual and less uneven urbanization. Small towns and cities are able to develop their communities and infrastructure without significant investments from the Chinese government, allowing its residents to engage in market economy while sustaining agricultural productivity. Liushi town, called the "town of electric appliances," in Wenzhou, and Humen town, called the "hometown of overseas Chinese," in Guangzhou, are two good examples of such small cities with both success in market industry and sustainability in agriculture (Wen).

Because loss of land and rural farm laborers are inevitable results of even "smart growth" urbanization, peri-urban agriculture should be encouraged and integrated into agricultural policies in China. Although peri-urban (or suburban) agriculture has been widely employed in and around Chinese cities and towns, the practice has gradually been neglected in recent years as urbanization and ensuing urban sprawl has encroached upon much of the land in city precincts. Nonetheless, there are examples of successful peri-urban agriculture in Chinese cities; Beijing's increase in land area from 4,822 km² in 1956 to 16,808 km² in 1958 led to the increased adoption of peri-urban agriculture, causing more than 70% of non-staple food in Beijing to be produced by the city itself in the 1960s and 1970s. In recent years, peri-urban agriculture has mainly been used to improve the quality of food, and not the quantity; however, by concentrating urban infrastructure development in the center of a city, more suburban land can be reserved for agricultural use, thus improving both the quality and quantity of food available (Cai).

Although one living in a privileged family of the Western Hemisphere may not need to worry about China's plight of urbanization and agricultural crisis, a lack of food security in China will eventually affect the entire world as nations and their economies become increasingly interdependent. Therefore, it is vital for the international community to aid this developing nation's rural smallholders to secure a future of agricultural stability and food security. This goal can be achieved through careful social reform (hukou reform and land consolidation acts) and improved urbanization policies (smart-growth urbanization, development of small cities, and the increase of peri-urban agriculture). However, merely policy reform is not sufficient to guarantee food security for China and its population of 1.3 billion. In the interdependent global community, each individual of our world, whether a government official or a working class citizen, must comprehend the importance of food security in the 21st century, for ours is the epoch of a new millennium. We have everything before us, yet we have nothing without man's most primitive necessity—food.

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