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Creating Opportunities with Infrastructure

The People's Republic of China is compelling, complex and often times confusing. But there is one aspect of China that is exceptionally clear: it's potential for growth. China has prided itself with hundreds of architectural feats that supposedly add to its infrastructural prowess. (www.businessinsider.com) Amaranthine Chinese building projects include two of the world's tallest towers. The Shanghai Financial Building has held claim to the title as the third tallest in the world, but that is all about to change in 2014. The Chinese are adding a new mammoth to their infrastructural resume. The Shanghai Tower will be the second tallest building in the world, second only to the Burj Khalifa in Dubai. The most amazing, yet frustrating thing about these two giant skyscrapers is that they will literally be next-door-neighbors. In 2014, a wealthy business man can go from the 90th floor of the world's fourth tallest building, take a crosswalk and another express elevator and arrive on the 120th floor of the second tallest building in the world all in less than ten minutes, yet nearly 472 million people in the same country live on less than two U.S. dollars every day. (China-profile.com)

In cities such as Shanghai, a majority of structures are high rise apartments or office buildings. In every direction you would see construction workers laboring away producing more of these enormous complexes. Why is it that a country seemingly so wealthy and full of infrastructural success is still considered third-world?

The China currently engineering improvements like the $102 million Pingtang radio telescope and the $900 million hydro-electric project is unfortunately also the China with 40 million migrant workers living in poor conditions or working in harsh environments. China, which is apparently prepared to spend $2.12 billion on a new Wuhan Railway Station, is also home to more than 300 million rural poor. (www.china-profile.com)

While China may seem at first a strongly united nation, the population is almost completely split into two fundamentally opposed sectors: rural and urban. For decades, the Chinese government has been ardently striving to alleviate rural poverty. But in the late 1990's, China began to deal with a new problem: an urban poor population was on the rise. Living conditions have improved for both the rural and urban poor, but relocating funds originally allocated for ostentatious projects to building more basic transportation could dramatically aid both facets of Chinese poverty.

Because China has been an agricultural nation for centuries, the same basic family-village-elder autonomy can be observed in rural corners. Forty-seven percent of those considered rural live on less than two American dollars a day. (Urban Poverty in China: An Emerging Challenge to an Economy in Transition) Though this sounds severe, costs of living outside of cities is significantly lower. An average impoverished family might sustain itself by growing crops such as millet or rice. One problem that arises is the lack of large enough plots to support an entire family. The government distributes land to those living in agricultural areas, but often it is the equivalent of a ½ acre. Though a six person household is given more land, this does not account for women, children or elders that cannot work in the field. (US Department of Agriculture) If a rural family produces a surplus of crops, it may be extremely difficult to sell these crops at a small, low-competition market.

The other side of China's poverty problem exists in cities. The typical metropolis of China provides readily available sources of food and water, yet work, wages and acceptable living conditions are not guaranteed. Shanghai consists of dense, urban high-rise buildings and offices radiating for more than 50

miles from the city's center. This gives the appearance of equality and success, but only the wealthy and upper-middle class can afford to live in most of these buildings. Some slums have been torn down to make room for new, more beautiful buildings, leaving its former residents without a place to live. (Worldnews.com) While the urban poor may have sub-par water, overcrowding and a much higher cost of living, there are many reasons why the urban poor are better suited for growth than their rural counterparts. There are more jobs, though often low-paying, more places to get food and medicine at a competitive price and more access to media and technology.

China has created a unique problem for itself by funding rapid urbanization and city projects. The government will soon have to back-track and build a stronger rural infrastructure base, or more than half or the country's population will be left behind. With eight lane expressways connecting cities juxtaposed with small villages having no cars or paved roads, China's infrastructure is starkly divided.

In large urbanized areas such as Beijing, new roads are required to handle the mass amount of traffic to and from places in the city, but the monetary return on these roads is little to none. China has managed to make profits through its toll road system, but roads that are built without these tolls are costing more than they are paying back. For every high-quality road added to China's urban areas, there is little impact on the GDP, nor does the addition of high-quality roads consistently in many places change the GDP by a measurable margin. The truly effective investment exists in China's low quality rural roads. Though they are not as glamorous or seemingly necessary as the freeways of the city, the addition of rural roads since 1998 has made measurable contributions to China's overall economy, as well as adding 1.57 Yuan of agricultural income to the GDP per Yuan invested. For every Yuan spent, the rural roads also produce 5 Yuan in non-agricultural rural income such as that of factory jobs. (Road Development, Economic Growth and Poverty Reduction in China)

If China continues to allow a stark contrast between the rural and urban facets of its society, then poverty will not easily be ended by 2015. Instead of addressing the rural poor and urban poor as two separate issues, the creation of more effective infrastructure could simultaneously aid both. If people of an agricultural village were able to reach the city easily, two major improvements would develop. First, citizens would have access to media, factory jobs and more places to buy and sell crops. This might lead some of the people in the village to find work in the city, creating a situation favorable for companies and facilitating expansion. This will result in more overall jobs. Secondly, people living below the poverty line in urban cities would be able to diffuse outside to agricultural areas where the cost of living is lower while still retaining their employment and status as "urban".

Though the rural aspect of infrastructure may seem worlds apart from the problems seen in the large cities of China, the two issues are inextricably related. As the government continues to put more emphasis on expanding urban areas, more and more families are going to be drawn to the city. Though millions of dollars are being invested in cities' growth and development, the government has been adding to rural infrastructure steadily since their initiative to decrease poverty began in the mid twentieth century. (Transportation and Distribution: Will Bottlenecks be Eliminated?)

Adding to the equation are the estimated 40 million migrant workers that are the "floating population" of large Chinese cities. While the amount of permanent residence living below the poverty line in urban areas is only 4%, the amount of migrants living below that standard is more than 10%. (Migration and Urban Poverty and Inequality in China) These people, often from small rural villages, travel in search of a better future. They come to the city hoping for work, but the number of openings does not meet the demand, thus migrant workers are often unemployed or working in hostile environments such as factories. The sky-rise apartment buildings being constructed all over Shanghai are undoubtedly constructed by thousands of migrant workers. Ironically, most of the people involved in building these lavish houses are not urban people at all, but people who come to the city for extended periods of work whenever they can acquire it. (Urban Poverty in China: Measurement, Patterns and Policies)

With appropriate application of funds, man-power and planning, China's poverty in both rural and urban areas could be dramatically improved by building roads to interconnect the many stagnated settlements that make up rural China, along with the urban cities that are scattered throughout. The new infrastructure system could be comprised of many local, dirt roads at the community level. Though this may seem miniscule and ineffective to the big picture of Chinese poverty, even crude modes of transportation between villages would add competition and economic growth. (Urban Poverty in China: An Emerging Challenge to an Economy in Transition) In this way, China could build a better system of infrastructure from the ground up by starting with smaller connections at the local level. If China were able to then unite these smaller regions of trade with each other and subsequently to the urban centers, economic security would increase. With more connectivity, competition and growth between all regions, not just urban or coastal, China could focus on its poverty level as a whole, not as two segmented issues.

First in the process would be improving Chinese road systems between the many rural villages. Simple, low-quality roads between different rural settlements would be a low cost, efficient way to allow competition and expansion. If a poor agricultural family were allowed to sell their goods at markets that were reachable by several villages, more competition and fair prices would result. More profits could be seen by farmers and more food security and availability would be enjoyed by the consumers. Eventually, small companies might begin to emerge, compete and further lower prices and create jobs. This process, while not immediate, would pull more rural communities out of poverty for longer than the distribution of subsidies or aid.

The result of a network linking the cities to villages and then other villages to each other would end the stark divide between city and rural areas, as well as rich and poor. Competition between workers of rural and inner-city places for the same jobs would allow companies to take risks and expand, creating more jobs for both groups of people. If employers wanted to take advantage of more economically competitive wages and workers, they would likely move outside of the city limits. Along with large companies, smaller service providers would likely follow as they could then cater to the population of workers that need goods and services not offered in rural areas. In reality, this would be a long process, but it would offer the most amount of stable improvement in the lives of those currently disconnected from urban opportunities. The final, big picture outcome of an interconnected system of infrastructure would be the creation of a society in-between rural and urban. Without a steep divide between the two, a lower-middle class would be formed, thus creating another socio-economic class available for people to compete within.

Along with the creation of roads or railway systems, there are many more improvements that need to be made to Chinese infrastructure to raise living standards and lift more people out of poverty. One specific aspect that will lead to the greatest difference in the lives of both the poor, the rich and of people living in both rural and urban places is the implementation of cold chain technology. Currently, more than a third of fruit and vegetables are wasted in China during the transportation process because there are no temperature control methods being used during transport. It is common for small growers to put their crops on the side of the road to be picked up. After this, they are taken to a warehouse and the crops that were on the ground or touched the truck are thrown out. Then, from the warehouse they are distributed to shops in the city: once again, the ones at the bottom of the pile are thrown out along with the produce that has spoiled in the heat. ("Importance of Cold Chain for China" from *All Roads Lead to China*)

With the creation of new roads, more instances of the trade of crops between villages and cities will occur, calling for more effective and safer modes of transport. Investment in cold chain technology would greatly improve the waste problem as well as ensure clean, disease-free produce to more people. While infrastructure improvements could change many facets of life for rural and urban impoverished families, investment in cold chain transportation would have a particularly significant amount of impact on the most people from across every background. Increased communication between peoples of many socio-economic classes means more competition could occur between farmers, lowering the price of food for

those who live in cities, thus benefiting everyone. In turn, this would lead to less waste and more efficiency per mu (one-half acre) of land, resulting in more total food and income for those families that rely on agriculture.

The greatest thing about investing in infrastructure and connectivity between rural peoples is that it offers an inspiration to other developing nations. These advancements could be made with a relatively low investment as communities could create their own low quality roads to begin with. This in turn, if successful, would blaze a trail for other rurally stagnated nations to pull together in a similar way. Ultimately, it would show that to be successful, the national government should not necessarily concentrate on rapid urbanization, but instead build upon grass roots foundations to build a sustainable, growing and stable economy for their own populations. Thus, China, if it were to implement proper improvements, could be leading the way by 2015 in both economic work and poverty reduction in the world, a trend that was previously unprecedented.

As more and more people are connected with one another, China could experience exponential economic success, but more importantly, the rural and urban poor of the country could be lifted to a higher standard of living. As things are now, regions set apart either from the city or other villages are being suffocated by lack of technology, competition and trade opportunities. At the same time, millions upon millions of either migrant workers or urban citizens living below the poverty line are experiencing overcrowding, inflated prices and low-paying, hostile work environments. Infrastructure could connect these two polarized worlds under one unique economic umbrella, opening doors for farmers as well as the urban population to expand, trade and compete.

Works Cited

Brown, Lester R., and Brian Halweil. “China’s Water Shortage Could Shake World Food Security.” Aug. 1998. File last modified on Aug. 1998. PDF file.

Brubaker, Richard. “Importance of Cold Chain for China.” *All Roads Lead to China*. N.p., 28 Jan. 2008. Web. 31 May 2011. <http://www.allroadsleadtochina.com/2008/01/28/622/>.

“Chinese Poverty Data.” Editorial. *China Profile*. N.p., n.d. Web. 22 July 2011. <http://www.china-profile.com>.

“CIA World Factbook: China.” *CIA Factbook*. CIA, May 2011. Web. 31 May 2011. <http://https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html>.

Dictionary.com. “Difine Infrastructure.” *Dictionary.com*. Random House Publishing, 2011. Web. 31 May 2011. <http://dictionary.reference.com/browse/infrastructure>.

Fan, Shenggen, and Connie Chan-Kang. “Road Developement, Economic Growth and Poverty Reduction in China.” 2005. PDF file.

“Giant Chinese Infrastructure Projects.” Editorial. *Business Insider*. N.p., n.d. Web. 22 July 2011. <http://www.businessinsider.com/giant-chinese-infrastructure-projects-2011-6>.

Gilmour, Brad, and Fred Gale. “Transportation and Distribution: Will Bottlenecks be Eliminated?” N.d. PDF file. USDA

Hao, Yan, Dr. “Urban Povertry in China: An Emerging Challaenge to an Econemy in Transition.” 24 Aug. 2001. PDF file.

Hussain, Athar. “Urban Poverty in China: Measurement, Patterns and Policies.” Jan. 2003. PDF file. International Labour Office, Geneva

Kumer, Corby. “McSlow.” *Hungry Planet*. By Peter Menzel and Faith D’Aluisio. Napa: Material World Books, 2005. 92-95. Print.

Park, Albert, and Dewen Wang. “Migration and Urban Poverty and Inequality in China.” Apr. 2010. PDF file.

Pike, John, ed. “People’s Republic of China- Infrastructure.” *Glabal Security.org*. N.p., 27 Apr. 2005. Web. 31 May 2011. <http://www.globalsecurity.org/military/world/china/infras.htm>.

Wikipedia. “Food Security.” *Wikipedia*. Wikipedia, 30 May 2011. Web. 31 May 2011. <http://en.wikipedia.org/wiki/Food_security>.