

Chinese Rural in Globalization: Effects and Adaptations from Industrialization

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Abstract

Background: The fast growing of China's industrialization has been widely spread throughout the country included rural areas. Most of agricultural areas are now turned to be industrial areas according to the country policy of industrialization which affect the living aspect of the people, environment, pollution; relationship between people has been changed. These can be concluded that industrialization in the frame of globalization has effect directly to the reformation of rural people. The study and research outcomes will be an important knowledge for Thailand's industrialization preparation and for adaptation of Thai's rural people.

Objective: The Objective of this study is to explain the impact of China's industrialization and adaptation of rural China. Since reform and opening to the outside world until present, through all 12 Five-year Plans. The methods on this research papers is Documentary Research by review data from various academic sources, including books, essays, research papers, dissertations, statistics database and electronic media in Thai, English and Chinese language.

Results: We found that the impact of China's industrialization and adaptation of rural areas can be divided into 7 issues. 1) Agriculture. 2) The employment and wages. 3) The quality of life. 4) Welfare and health care. 5) The relationship in family. 6) The relationship between people in community. 7) Natural resources and environment.

Discussion and Conclusions: The impacts of industrialization to the adaptation of rural people have been observed in several dimensions. Start in agricultural sector has productivities while a lot of cultivated areas have been replaced by many industrial factory establishments. The employment issue is also another impacted part. Agriculturists from other areas also joined for work at the factory due to a lot of labors required along with more attractive returns offered. However, welfare and health care system of rural and urban people still differs so much because of the government policy that emphasized the industrial development in the urban areas. The relationship inside the family of rural people is another one impacted part. Besides, the relationship between people in the rural village has been changed to be more ostentatious and emulous. Helping other people depends upon the benefits.

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Introduction

China had ever been noticed as one of the impoverished country in the past. Population's livelihood was under the world's standard. As the highest population country and the willing to improve the population's livelihood, China had decided to boost their economic by mainly focused on the industrial sector development since then. Nowadays, China becomes the most competitive country of the world lower only than United-States of America.

As a very fast growing of country development during the past three decades of China, economic professors, policy analyzers and other experts of China study do all believe in the potential of China to become in reality the leader of world economy in the near future based on the readiness of relevant factors such as the prompt of nation resources, political stability, economy, workforces, military, society and culture. However, due to China's industrialization has been widely spread throughout the country included rural areas. Most of agricultural areas are now turned to be industrial areas according to the country policy of industrialization which affect the living aspect of the people. Life-style of rural people becomes more similar to what happens as urban people. The relationship between people has been changed. The willing in helping each other has been decreased while the pollution level getting higher.

These can be concluded that industrialization in the frame of globalization has effect directly to the reformation of rural people. We should perform some studies in

details and make understanding especially the impact of when industrial segment had been focused as a major driven factor of country development since the past until present. The study and research outcomes will be an important knowledge for Thailand's industrialization preparation and for adaptation of Thai's rural people.

Research methodology

Rural Chinese adaptation study under globalization is relied on Qualitative Methodology Research method which is all information will be collected from available literature and researched papers. In order to acquire the results according to the determined objectives, the synthesis from the collected information will then be performed. This kind of methodology is called "Documentary Research". Moreover, researcher will further collect additional information from an observation on the actual areas and perform an interview of the people who are impacted both directly and indirectly by the effect of China's industrialization. These can help the researcher team gains more clearly understanding regarding the industrialization effects very well. There are three studied locations determined for the research which are Zhengzhou and Luoyang cities of Henan province and Suzhou city of Jiangsu province respectively. All of these locations are the vital industrial areas for China's industrialization which will provides the various views of different Chinese rural adaptations. The case studies will be good for learning and making some understandings for further Thailand application.

The impact of China industrialization to Chinese rural adaptations

1) Effects and adaptations of agricultural sector

After the country establishment in 1949, China has emphasized on industrialization development and paid less attention on agricultural sector development. Since then until after country reformation in 1978, China economic system became a form of capitalism which continuously contributes more on industrialization development. Although domestic consumption can be handled by only

workforces, there were a lot of agricultural machineries replacing workforces for efficiently improvement and productivity increment. According to the statistic information about number of agricultural machineries (Figure 1) and the statistic information of agricultural productivities (Figure 2), these can be found that the number of agricultural machines such as tractors and diesel engines trend to be increased in the same direction of agricultural productivities in the initial phase. Although there are some declines on the way but still on the increment trend in the global view.

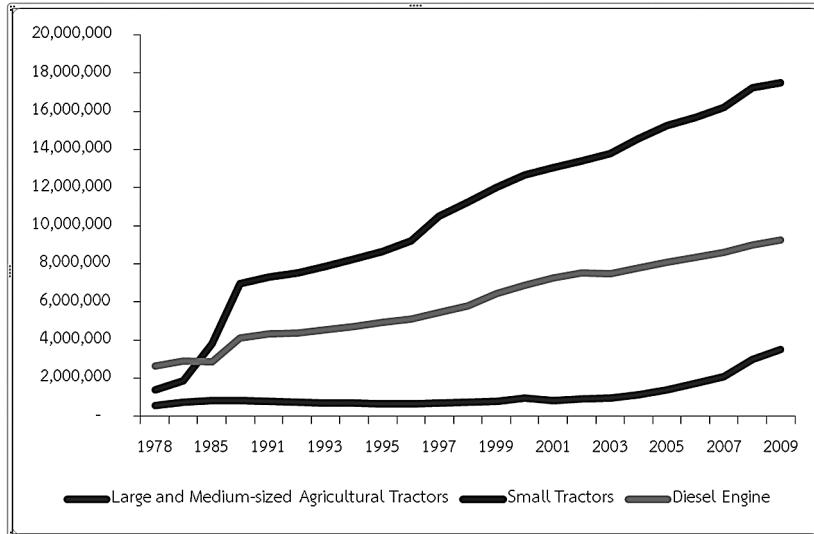


Figure 1: Statistic data about number of various kind of agricultural machines usage

Reference: National Bureau of Statistics of China

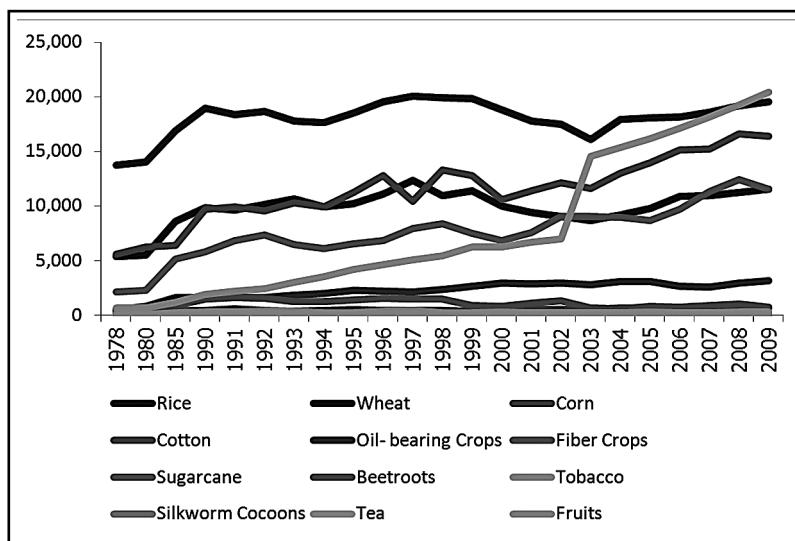


Figure 2: Statistic data about various kinds of agricultural productivities

Reference: National Bureau of Statistics of China

The statistic data from both two figures above are in-line to what the Chinese academician has mentioned during an interview that

“..Agricultural machines have been widely utilized significantly. More than 95% of the utilization is mainly used for supplement the productivity efficiency..” (Professor Chen WeiTao, Chinese academician)

Most of the agricultural machines are manufactured from Luoyang's factories which are one among 156 tractor manufacturing

projects since the first nation development plan of China's government. These benefit the agricultural sector tremendously.

According to the industrialization plan and its expansion to rural, there are many cases in turning the agricultural areas and farms to be areas of industrial estate. A lot of industries and factories have been established and constructed. These consequently lead the dramatic decrement of farms and cultivated areas (Figure 3)

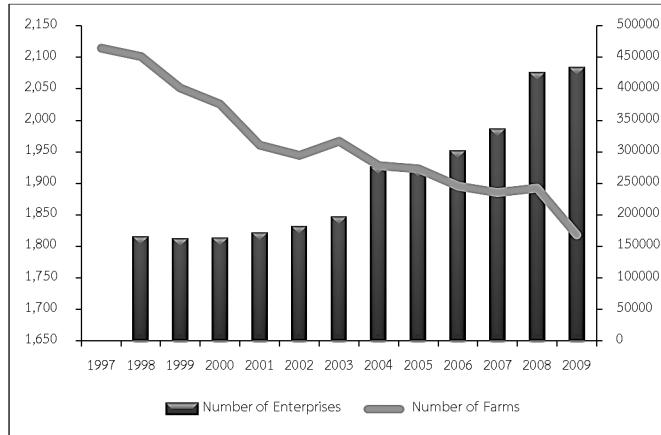


Figure 3: The comparison of organization number between industrial and agricultural sector

Reference: National Bureau of Statistics of China

The data comparison from above figure is in-line to what Professor Wang Jing Shang mentioned during an interview that

“.. Right now numbers of farmer drop a lot due to significant decrease of cultivated areas and due to widely usage of machinery..” (Professor Wang Jing Shang, Chinese academician)

As a result of cultivated areas decrement, Chinese rural have to adapt their livelihood to conform the industrialization expansion. According to the survey activities in 2 provinces, 3 cities and 5 villages, the adaptation of Chinese rural due to industrialization has been observed explicitly which can be grouped as 3 categories as follow

First category: The government will determine the industrialization zone and take over any cultivated area to be superseded. The local farmers on the taken over area have to accept the benefit payment and have to move and restore to the new area. They will also acquire a privilege in working as a

worker at government's industrial factories which going to be constructed on the returned areas. According to the survey results at Mazhai village of Zhengzhou city and Yanshi village of Luoyang city, the adaptation over these two areas have been observed and definitely match to the mentioned category above. In the past, these two areas were all the cultivated areas and then after some villagers who gained experiences as an urban worker came back to their village and initiate their own factories establishment with success. Other people in the village was then willing to follow until the government has seen their potential and decided to indicate these two areas along with additional surrounding areas as an industrialization development zone. Most of the impacted farmers decided to accept the benefit payment and relocate to the nearby areas and do their new interesting businesses that support the industrialization zone such as merchandises, workers and food shop owners.

Second category: Rural people in the nearby areas would like to evacuate to the industrialization zone for seeking the better job opportunities in term of incomes. According to the survey activities at Jiangxiang village in Suzhou city which is the major garment industrialization development zone allocated by the government, many agriculturists from surrounding areas have leave their lands and move to work in the industry zone with the hope of better life qualities and incomes. Moreover, there are some agriculturists come into the industrial zone in order to do their own business because of the location advantage. One grocery store owner in the local area and fruit shop owner from other area have mentioned during an interview that

“.. Don’t want to work for other anymore but want to be an owner. I’ve ever been a mobile phone seller in the local department store for 10 years. But after I found the factory will be established here then I decided to move my business location and earning income is better..” (Mr. Jiang, Grocery store owner)

“.. I have done everything before, whether selling vegetables, trolley worker or laborer. I come to do my own business here due to a suggestion of my relative. The advantage in term of location probably good for doing the business right here but it’s not as I thought ..” (Mr. Guo, Fruit shop owner)

Third category: Rural agriculturists have formed up their own community enterprise which will collect all the lands together with administration as community business. According to survey results over Yonglian village in Suzhou city and Huaxi village in Jiangying city, the two successful villages of

community business management, former impoverished agriculturists now become a part of huge industry ownership. Both villages have the similar initial idea of putting the entire local and nearby areas together for establishing the industrial factories and settle down the efficient management system which provides the appropriate return and welfare to the villagers. Any agriculturists who have good qualifications will be accepted for work inside the industrial factories while the rest can be worked in the service sector such as food shop servicer, porter or security servicer. In addition, the land can be allocated partially for cultivated areas in order to support the people who still need to do their farming.

In addition to the mentioned impacts, there is another one important reformation impact on agricultural sector which is the first occur of a cooperative. This occurrence has benefited directly to the agriculturist against the middleman or the middle-company in terms of product price bargaining.

“..Since the last few years, the government has supported the rural cooperative. Agriculturists have formed a group up and sell their product to the market instead of selling by only one person. The group can make a negotiation to the company and this is an alternative way for the agriculturist ...” (Professor Chen WeiTao, Chinese academician)

As per mentioned impacts when an industrialization development has been expanded to rural area, Agricultural people will face more or less of some adaptions. For example, evacuation, occupations changing, reforming a potential business group included the change of their life quality and earning

income level. These would be important adaptations for living according to the change of era.

2) The employment and wages

Consequently to the impacts and adaptations in agricultural sector after industrial factories have been found in the rural areas, the number of industrial labor is then required much higher while the cultivated areas have

been decreased due to the government industrialization development policy. Those agriculturists who have been affected by the policy will then be moved for work in the urban area which leads to a continuous increment of workforce movement from agricultural sector to industrial sector. These make the employment level in the industrial sector becomes higher than the past (Figure 4).

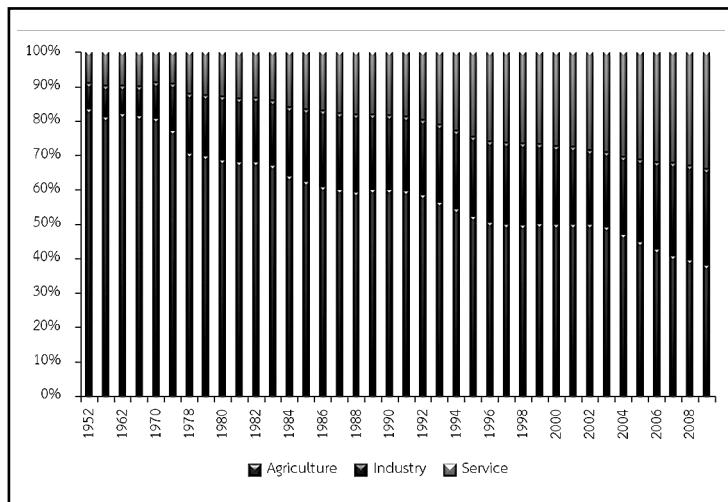


Figure 4: Employment percentage divided by agricultural, industrial and service sector

Reference: National Bureau of Statistics of China

The figure above conforms to what Chinese academician mentioned during an interview that

“... The first economic development plan is in 1953-1957. The heavy industry was mainly based on the military industry and the main problem of heavy industry is about the large amount of investment required. Due to impoverished country, entire workforces of the country are then needed in order to establish the industry. For instant, Luoyang’s tractor in-

dustries have more than hundred thousand of worker which required skillful and lot of workforces. So, hiring agriculturists to work for the factories then facing some problems because of the laggard of their industrial skill ...” (Professor Qiu JianLi, Chinese academician)

“.. After the boosted of industrialization development, there are a lot of industrial labors required which is not enough for only the labor in the urban. So, the main labors then come

from agricultural sector.." (Professor Chen WeiTao, Chinese academician)

Because the government has mainly emphasized on the industrialization development, the employment ratio then can be described as in the above figure. Since the

industrial wages have been adjusted to be higher than the agricultural wages considerably (Figure 5), most of rural agriculturists then prefer move for work in the urban industrial factories.

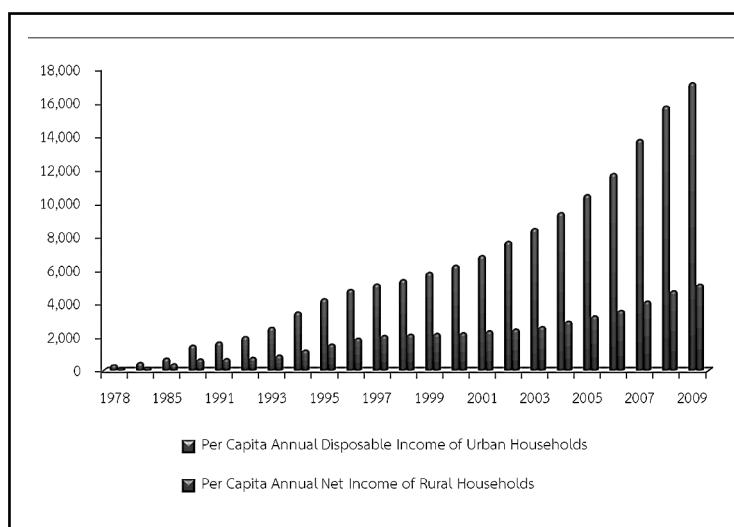


Figure 5: Income comparison between urban and rural households

Reference: National Bureau of Statistics of China

The information from the figure above conform to what Chinese academician and industrial factory worker mentioned during an interview that

".. The way of life of people may changes. Originally cultivates cornfield but now working in the factory.... Most of farmers and people are satisfied with the higher incomes received. Moreover the high benefit payment due to land taken over by government also satisfies people ..." (Professor Gao YanJun, Chinese academician)

"..My family has four members. Our 3,200 square meters cultivated area now turns

to be factory. I'm now working in the factory, don't cultivate anymore ..." (Cui Shifeng, LUOY-ANG Northern EK CHOR Motorcycle's officer)

"Urban area people have high incomes and high expenses while agriculturists have low incomes but high expenses. This is quite severe situation" (Professor Zhou LinLin, Chinese academician)

".. Because about 10-20 million people come for work in urban area each year, the quality of life then gets better. If they do only agriculture and cultivation, it's hard to raise their quality of life due to the low level of income. At this moment, the productivity value

is only few hundreds Yuan per 1,600 square meters. So, it can't be relied only on agricultural. Total income of agricultural people is higher than the past but comparatively much lower than the total income of urban people almost 3 times. The income of urban people is around 10 thousand Yuan per capita but only 2-3 thousand Yuan for agricultural people .. We are now reforming the policy. However, I think whatever the payment benefits, the development of industrialization seemed to be the better driven factor..." (Professor Qiu JianLi, Chinese academician)

Although the government has put effort to minimize the income gap between agricultural and industrial people but the result still be unchanged. This is because China still emphasizes on economic development by using industrial as a driven sector which make the growth rate of this sector continuously raised and industrial labors still be needed amid the higher utilization of industrial machines.

3) Quality of life

Formerly the agricultural people who worked in the agricultural sector have very low level of income. After they move for work in the industrial sector, most of them satisfy to get the much higher income. According to an interview and survey information, almost all people mentioned that they gain more income than former, get a better livelihood and capable to spend more money. The quality of life of rural agriculturists is then closer to the quality of life of urban people according to what mentioned by Chinese academician that

"...When agricultural people have moved for work in the factory or other areas, they will

get more income and get a better quality of life consequently. In addition, working in the urban area, they also absorbed the new economic marketing idea in term of investment, whether do their own business or open their own factory which make them acquire much higher income and high quality of life than the past..." (Professor Chen WeiTao, Chinese academician)

" ...Formerly when two economic systems have been separately applied for different location let say rural economic system will be applied only for rural area but later all locations applied with the same system. After land-used community settle up, the benefits of the land-used for agriculture has been transformed to industrialization development. Formerly, agriculturists have been controlled strictly to stay inside their village but set free after the reformation and development. This is not the government policy but they move out due to the difficulty of their way of life. After several years passed, some agriculturists get the better quality of life and right now their quality of life level rose up a lot. They work outside the areas or do their own business ..." (Professor Qiu JianLi, Chinese academician)

As a result of above information, agriculturist livelihoods have been adapted so much. There are more spending on the comfortable things as found by the increment of the home computer usage from both urban and rural areas. Moreover, rural area people have also continuously spent more in education, culture and entertainment sector. These reflect the absorption of life styles from urban people after moved for work in the industrial

sector. They look for more convenient life in order to satisfy their needs.

Besides the increment of income, industrial development is also another part that increases the education level of Chinese people (Figure 6). Chinese people can effort

the education expenses due to the raise of their income and prefer to study at the high level due to the industrial sector still require a potential employee. The higher level of education, the higher rate of remuneration package offered.

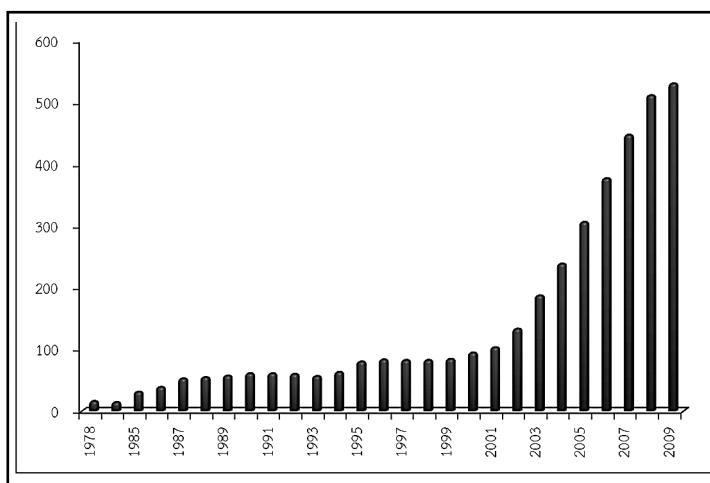


Figure 6: Number of Chinese population who educated at least the secondary school
(Unit: 10,000 people)

Reference: National Bureau of Statistics of China

There is one of the economical quality of life measurement methods using Engle's Law which described that the proportion of income used for food expenses in any economic system will be a reverse variation of the proportion of livelihood of the society. By comparing the expenses used for food and all remaining expenses used for living in the same

period of time, and use the method in measuring the quality of life level for both urban and rural areas during the 2 decades (1990-2009). It can be found that Chinese quality of life has been increased gradually. However, the quality of life in urban area is better than in rural area (Figure 7)

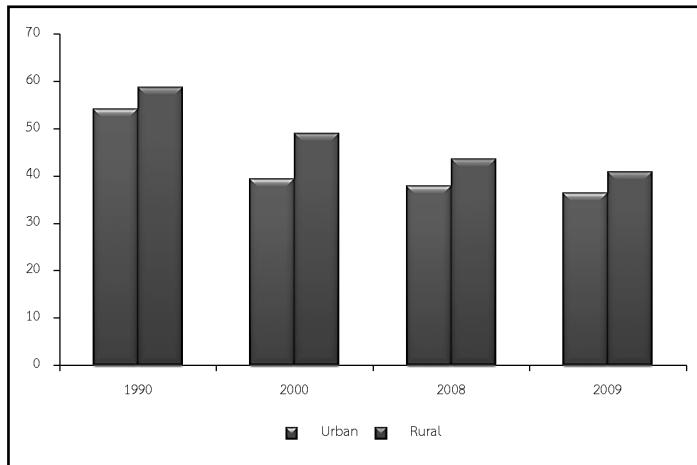


Figure 7: Quality of life level by Engel's Law

There is one village that researchers have done a study as a special case which is Yonglian village. The village physical geography comprised of beach and river. The buildings located beside the river and parallel with the dam border *“look like number one shape in Chinese writing number (Straight line)”*. Scattered locate, waste of area usage, dirty environment, restive, without management system and high services setup cost. As per these geographical features, Yonglian has started to renew the village layout based on the scientific knowledge. Finishing the establishment before moving in is the used principle of new accommodation for people “The accommodation style will be the same as in city”. Many organizations have been invited for design and planning consultant such as Qinghua University, Suzhou garden department and Changzhou design and planning college. At present, more than 1,000 million Yuan has been invested for the modern accommodation establishment which is able to contain living

capacity for 10,000 people from 3,200 households. The accommodation zone will be equipped with workout center, entertainment and shopping complex with fully furnished and environment controlled. In addition, the village will provide some privileges to the accommodation buyer by lower the selling price than the actual building cost and receives the return of payment benefit for 1,400 Yuan per every one square meter. After finished, Yonglian people will be able to feel of *“Community livelihood style”* and *“Way of life as living in town”*

Huaxi village is another one good example of rising up the rural people quality of life. In the past, this village did not have even secondary school students. Almost all people of the village did not be educated or taken only primary education level. In the present, there are up to 86% of secondary school educated agriculturist, about 200 people of vocational educated and there people had even educated from aboard. Besides, some agriculturists have taken the technical training

in various fields and there are more than 1,000 medium and high level expertise technicians available at this moment. There are about 18 village leaders graduated at university level and there are many other languages training courses available such as English, Japanese, Russian and German.

Since the beginning of village establishment in 1961, an annual income had been allocated for only 50-60 Yuan. Presently people have lived with a big accommodation on more than 400 square meters area. There are up to 400 private cars in the village. The lowest amount of money available in saving account is around 1,000,000 Yuan while the richest has up to 10,000,000 million Yuan. Electrical devices such as digital camera, video, plasma-television, air conditioning are all the normal available devices and all families have ever travelled aboard.

In addition, the building construction has been changed to the new style. Small structure with one-story house changed to bigger house with at least two-stories. Now, all families are able to living in detached house fully equipped with all facilities such as water supply, electricity and gas system. There are areas inside the village dedicated for recreation zone, relaxing zone, sport zone, shopping zone and tourist attraction zone.

Regarding the examples above, it can be deduced that the rural people way of life is always adapted all the time after the industrialization development put in place. With a good baseline infrastructure and dedicated zone for recreation, the livelihood of rural people turned to be similar to urban people. However, this change will affect to the people

attitude and culture which will be mentioned further.

4) Welfare and health care

Welfare and health care system between urban and rural people is still different very much. Rural people received the worst welfare benefits comparatively.

“.. The main problem is about social security and census registration issues. Urban people have received the medical fee and senior citizen allowance from the government since their born till die while agriculturists have received the welfare as a public welfare which contains many restrictions. These are too much different ...” (Professor Qiu JianLi, Chinese academician)

The statement above reflects the lacking of attention paying to the rural senior citizens in term of welfare system which is distinguish much compare to urban people. The consequence comes from the only taking care of the specific industrial development zone determined by the government which lead to forgetting in pay attention to the rural senior citizens who living in the outside development zone and had ever been an important worker during early phase of country development while baby-sitter is their only major role in the present

Nevertheless, some rural villages already have a good welfare system like urban. Most of industrial factories have offered quite good welfare benefits to the workers such as accommodation welfare benefits and others according to an interview information dictated by Mr. Prasit Tongtanomkul, LUOYANG Northern EK CHOR Motorcycle Co., Ltd., finance deputy managing director that

“...Here is the living zone for workers. The company has sold very cheap accommodation for them which the price is less than or equal to the cost of construction. If they resign before the time that specified in the contract, they have to return the accommodation ...” (Mr. Prasit Tongtanomkul, LUOYANG Northern EK CHOR Motorcycle Executive)

Moreover, there is kindergarten located inside the factory. Workers who have children can enroll here. The children can be delivered before working hour begins and pick up for going back after finished working.

“.. Very convenient, we can come together for round trip. There is also kindergarten outside but very convenient when it is located inside here ...” (Cui ShiFeng, LUOYANG Northern EK CHOR Motorcycle's officer)

The on-site survey outcomes at Yonglian village are the interesting case study for its welfare and health care system. Because not only supporting agriculturist job opportunities but also developing the more complete welfare system. These are the long term infrastructure and mechanism planning of spreading an efficient welfare throughout village. For health care benefits in 2007, the coverage rate of new agriculturist health insurance is 100%. The agriculturist can get money back up to 70% of their medical fee. For educational benefits, primary school and lower secondary school children will receive allowance about 500 Yuan per year while upper secondary school and university person will receive allowance about 2000 Yuan per year and received additional prize if done the high entrance examination scores.

The expansion of Yonglian village area

means the expansion of wealthy area to the surrounding areas. The feature of “one village one system” has been used in order to balance equally the allowance and welfare benefits between nearby area people who are the newcomer and the existing people. In another part, there are some attempts to help these newcomers to get rid of their impoverishment and difficulty in living until able to have the same level of wealthy. After combining the two new villages into the existing village in 1995, Yonglian village has not only handle the taxes burden of the newcomer people but also allocate the allowance fund more than 1,000,000 Yuan for them in order to stimulate these people to contribute in agricultural production infrastructure reformation and expedite the wealthy level achievement.

In 2004, the party members of the village have determined a “prize of civilization family”. This prize will be awarded to the family with excellent practices in term of legality, law retaining, sanitation and environment maintaining, family planning, living style and administration. The award regulations have been clearly defined and ease to practice which will be a good incentive for villagers. If all family members have never broken any civilization regulations by 1 year, they all will get 1,000 Yuan money reward. If one of family members found breaking the regulation, all members will be deducted the score by 1 and the subdivided group of the village contains this family as its group member will also be deducted the score by 0.1. So, many villagers then would like to be a “volunteer of inspector officer” in order to inspect and supervise other villagers behavior of the same subdi-

vided group. Villagers will become familiar with the regulations according to a good precedent from these volunteers and finally will turn to be a kind of conscious to follow the regulations.

For Huaxi village, villagers who had done an important benefaction for the village will take a discount or payment benefits. This would be a persuaded methodology for the people who have great capability to settle their business in Huaxi. Huaxi's villagers have been realized in paying gratitude and respect to the mature aged citizens. In 2000, there was a money reward to senior citizens who are more than 100 years old for 300,000 Yuan. Huaxi village has also paid attention to rise up the villager quality of life. There is a meeting for the whole village every week in order to discuss and advice about economy and education of the village and up to 80% of villagers attend the meeting.

It can be found that welfare and health care benefits of the villagers are reaching the same level of urban people and seemed to be better on some measures.

5) The relationship in family

In rural, most of the family structure consists of two groups of generation which are senior and children. These are because of an evacuation for work of teenage workers due to the difficulty in finding job in their local area along with high competition and still have no plan of the industrial development. When the prompt in forming up the complete family has not yet ready and in addition with the high livelihood expenses, children then will be sent to their grandparent for taking care. Two generations inside single family is then found increasingly. Instead of senior citizens should

be taken care by their children, their roles have been changed oppositely and have to handle the more burden in term of physical and spiritual teachings for children. For teenage workers who have a good responsibility, they will contact and send back money support to their family in order to alleviate their grandparent burdens. Otherwise, their grandparent or senior citizens have to handling more burdens in term of finding earnings for the family and teaching their children which affects the healthy status on both physical and spiritual parts of senior citizens.

..The education problem of agriculturist family's children is very important. As per statistic data, there are around 24 million children existing from agricultural families and there are 8 million entered to the city with the remaining 16 million still be staying in the local area .. a lot of children have been leaved at home. When teenage workers have children, they will leave at home with old people and go for work. This leads to education problem of children and nobody else can take care if old people get sick ...” (Professor Wang JinShan, Chinese academician)

“..Old people who living in rural area are in the period of their retirement. They are not only perform an cultivation but also take care the other generation people which considered to be a critical problem in handling such a double workloads..” (Professor Zhou LinLin, Chinese academician)

“..Old people and children have been leaved at home without anybody takes care..” (Uncle Li YuZhu, Retired worker)

It can be found that children have to stay far away from their parent because the

limitation of earnings in living together or an inconvenient to accompany with. Children then did not receive both a good care and familiarity from their parent which affect to the children behavior and growth. Some bad behaviors and diseases will occur such as sadden disease, anxiety, addiction, aggressive behaving, immoral and illegal while old people will be exhausted for two times on both take care themselves and their children in the same time.

However, if the people work at their area whether in local factory or industrial estate, the relationship between members in the family will not be a problem anymore. In other words, they can come back home for taking care old people and children after finished daily working.

“.. Very good because all can live together.. yes, it’s very good for hearty family and can always meet the children .. If go to different areas, it incurs the high expenses. If work in the local area, it is more convenient and able to take care the family.. Because the proximity, comfort and good earnings..” (Cui ShiFeng, LUOYANG Northern EK CHOR Motorcycle’s officer)

6) The relationship between people in community

In the past, most of Chinese rural people are agriculturists. The relationship between people is in the feature of helping each other and friendly. There were no much social different for each family due to all are impoverished. Anyway, after the implementation of industrial development, workers who moved for work in town have absorbed and took back home the new social values from urban society such as clothing styles, high technol-

ogy devices usage and new house construction. In addition, the relation between people has been changed to be more ostentatious. Helping with sincerity becomes lower and replaced by the benefits.

“.. The industrialization has impacted the amicable relation of people. After the reformation and being an open country with capitalism system and people went for work outside the area, the notion of people has been changed. There are more competitions and benefits emphasize. The amicable relation between people then differs from the past .. when they move for work in the other area, some people are successful on their work and getting rich while some people failed. Previously, all people have the same financial equality but now it is quite different. This will cause the conflict between people afterward ...” (Professor Chen WeiTao, Chinese academician)

“..Materialism preference, neighboring family buy a car, he then would like to buy a car also. Neighboring family buy a motorcycle, he then would like to buy a motorcycle also. These are emulation and showy. You build two-story house so I build three-story. Prefer remarkable but leave their parent. Taken the treasures from the parent already but nobody take care the parent..” (Mr. Prasit Tongtanomkul, LUOYANG Northern EK CHOR Motorcycle Executive)

“.. In the past, when I do farming, I asked neighboring family for help but now I have to pay for help. In the past, helping each other was free but now has to pay money even a friend .. I prefer helping like in the past which people will help each other and no money

issue. For example, when build up a house, neighboring people will come for help without request for wages or returns. But now cannot and have to think about how much to pay for one day ..." (Mr. Wang, Yanshi villager)

The information above has reflected obviously the change of relation between people in community. There is a transition from the helping each other society to be the helping that requires return. Materialism focusing is then the consequent of the changing of people notion come from the industrialization.

7) Natural resources and environment

It is necessary about huge usage of natural resources for industrial development. In parallel as the largest population country of the world, it is essential regarding the huge usage of natural resources to serve up to 1,300 million people. The increment of both light and heavy industrial factories has reduced the country natural resources very fast.

Country development by rely mainly on industrial development has consumed a lot of natural resources and all resources trend to be lower. Altogether with an inefficiency of

natural resources usage, the remaining resources may not enough to serve the need of country in the near future. Besides, there are conflicts between industrial factory and villager regarding the natural resources usage (Table 1)

“.. A lot of problems such as air pollution and no water supply. Because the factory needs a lot of water, people then have to dig for underground water. Formerly, water can be found at only 100 meters depth. In order to take more water, we then dig to 300 meters depth. Anyway, the factory still lack of water needed and sometime the situation leads to the dispute between factory and villager about lacking of water consumption. Finally, factory has to share some water to villager and find some more water from Huang He River by implement an underground pipeline system.. if the water level of the river drops down, the country will face with a lot of difficulty. The water level has been decreased a lot since 1949. Right now the remaining level is only one-fifty compare to the past and some period of time people can come over the river..”

(Uncle Li YuZhu, retired worker)

Table 1 Comparison of water use and available water supply in each year

Year	Water Supply			Water Use					
	Surface Water	Ground Water	Others	Total	Agriculture	Industry	Consumption	Ecological Protection	Total
2000	4,440	1,069	21	5,531	3,784	1,139	575		5,489
2001	4,451	1,095	22	5,567	3,826	1,142	600		5,567
2002	4,404	1,072	20	5,497	3,736	1,142	619		5,497
2003	4,286	1,018	16	5,320	3,433	1,177	631	79	5,320
2004	4,504	1,026	17	5,548	3,586	1,229	651	82	5,548
2005	4,572	1,039	22	5,633	3,580	1,285	675	93	5,633
2006	4,707	1,066	23	5,795	3,664	1,344	694	93	5,795
2007	4,440	1,069	26	5,819	3,600	1,403	710	106	5,819
2008	4,440	1,085	29	5,910	3,663	1,397	729	120	5,910
2009	4,839	1,095	31	5,965	3,723	1,391	748	103	5,965

Reference: National Bureau of Statistics of China

In addition, the pollution is an inevitable problem of industrial development. Air pollution from the toxic gas emission and water pollution from waste water emission of factories are the problem that everybody noticed. Although the current situation is getting better (Table 2) according to what Chinese academician said that.

“... First, it’s a polluted environment indeed. This area is a beautiful place and called as Venice eastern, the river city. When commercial and enterprise developments happened, the entire river then got a pollution problem but now it’s gradually better ...” (Professor Duan JinJun, Chinese academician)

Table 2 Waste water discharged volume from different industries in each year

	Total of Volume Industrial Waste Water Discharge (10,000 ton)					
	2009	2008	2007	2006	2005	2004
Total	2,090,300	2,173,775	2,207,566	2,080,440	2,159,779	1,978,378
Mining and Washing of Coal	80,236	72,209	73,040	54,023	46,650	49,983
Extraction of Petroleum and Natural Gas	10,197	11,209	9,988	11,177	11,252	10,372
Mining and Processing of Ferrous Metal Ores	15,546	16,859	16,032	15,431	14,239	14,322
Mining and Processing of Non-Ferrous Metal Ores	37,307	42,764	43,374	42,296	31,136	27,806
Mining and Processing of Nonmetal Ores	7,719	9,309	8,663	9,842	12,968	9,468
Mining of Other Ores	574	926	1,339	851	496	245
Processing of Food from Agricultural Products	143,838	157,770	148,589	94,414	118,964	102,981
Manufacture of Foods	52,699	47,833	42,824	43,113	42,830	37,304
Manufacture of Beverages	69,674	70,840	63,156	56,049	43,404	33,571
Manufacture of Tobacco	3,253	2,917	2,873	2,844	2,809	3,110
Manufacture of Textile	239,116	230,362	225,169	197,934	172,232	153,875
Manufacture of Textile Wearing Apparel, Footware, and Caps	14,728	15,244	14,494	13,685	9,185	11,395
Manufacture of Leather, Fur, Feather and Related Products	24,964	26,112	23,574	20,340	18,338	16,480
Processing of Timber, Manufacture of Wood, Bamboo, Rattan, Palm, and Straw Products	6,137	4,653	4,825	5,223	6,569	8,355
Manufacture of Furniture	1,856	1,825	1,848	931	797	519
Manufacture of Paper and Paper Products	392,604	407,675	424,597	374,407	367,422	318,705
Printing, Reproduction of Recording Media	1,783	1,702	1,964	1,199	1,618	1,379
Manufacture of Articles For Culture, Education and Sport Activity	1,239	1,273	929	883	862	726
Processing of Petroleum, Coking, Processing of Nuclear Fuel	66,406	70,496	73,126	70,281	68,122	61,423
Manufacture of Raw Chemical Materials and Chemical Products	297,062	301,935	324,026	335,956	339,052	323,233
Manufacture of Medicines	52,718	47,960	42,893	42,988	40,050	42,982
Manufacture of Chemical Fibers	43,855	48,087	48,957	49,543	48,516	47,467
Manufacture of Rubber	6,783	6,447	6,435	5,976	6,118	6,028
Manufacture of Plastics	4,387	4,842	4,148	3,374	2,288	2,809
Manufacture of Non-metallic Mineral Products	32,777	35,840	40,265	43,070	48,248	47,814
Smelting and Pressing of Ferrous Metals	125,978	144,104	156,862	156,727	169,934	186,888
Smelting and Pressing of Non-ferrous Metals	28,976	30,175	31,807	32,751	33,734	35,565
Manufacture of Metal Products	31,346	28,252	33,335	22,448	21,057	15,880
Manufacture of General Purpose Machinery	13,452	14,291	12,182	12,530	15,652	19,600
Manufacture of Special Purpose Machinery	11,006	10,513	9,439	11,506	11,324	10,455
Manufacture of Transport Equipment	27,422	28,524	22,048	25,708	24,653	40,202
Manufacture of Electrical Machinery and Equipment	9,324	9,927	8,660	8,239	8,108	7,964
Manufacture of Communication Equipment, Computers and Other Electronic Equipment	33,513	31,862	29,621	23,905	18,745	14,214
Manufacture of Measuring Instruments and Machinery for Cultural Activity and Office Work	5,798	5,756	7,195	7,845	7,241	9,902
Manufacture of Artwork and Other Manufacturing	3,587	3,357	3,767	2,340	2,160	2,087
Recycling and Disposal of Waste	959	649	961	430	235	269
Production and Supply of Electric Power and Heat Power	149,010	181,627	174,796	217,145	251,145	251,565
Production and Supply of Gas	2,013	2,605	2,837	3,278	4,099	3,503
Production and Supply of Water	22,919	27,495	15,932	19,747	18,819	12,600
Other Sectors	17,537	17,550	50,997	40,010	118,708	35,332

Reference: National Bureau of Statistics of China

Regarding the information taken from rural people interview about their opinion and adaptation, most of them said in the same way that the situation is uncontrollable, they cannot do anything and have to leave it that way. These are the problem that people cannot resolve and found that they did not pay attention much on the environment problem.

“Whether or not it’s going to be problem, I cannot control. It’s a government level problem and people cannot do anything” (Mr. Wang, Yanshi villager)

Chinese government has been trying to solve the pollution problem all the time. The pollution resolution strategy has been put into the issue 11th of 5 years economic development plan.

“.. Right now it’s a period of changing. The polluted and energy consumed industries have been restricted. Right here there are only about IT, Software, Telecommunication, Electronic and Process factories. SIP is bigger and more advance than SND ... The pollution is under control well. With the high regulations from government, ordinary factory will not be able to settle down here. So, there is less pollution problem..” (Professor Zhang Ming, Chinese academician)

“.. Some factories generate pollution and destroy environment. We have to reform these also. We may welcome the foreigner investment but we will control the pollution and energy resource consumption level. We allow for high technology industry which generates low pollution level such as business and financial service, electrical and data service industries. For any other industries that generate high pollution, we do have to control whether they are from

foreigner or Chinese industry. For example the paper industry that generates a lot of pollution had been closed by government and run other business..” (Professor Qiu JianLi, Chinese academician)

Since the first issue of nation economic development plan that emphasized on heavy industries until the 12th issue that emphasized on high technology and non-pollution industries, these can be found that China has paid attention explicitly on environmental issue. The polluted industries had been enforced to shut down finally.

“.. Military industry or others that generate pollution cannot be operated. If it is an industry that will improve the people quality of life, we are very welcome...” (Professor Qiu JianLi, Chinese academician)

“The 12th issue of nation economic development plan that focused on the changing of economic development as Green Economic has emphasized on high technology, energy saving with low pollution industry like a green color..” (Professor Wang JinShan, Chinese academician)

It can be found that the industrial factories have realized about environmental importance. Many investments on pollution treatment machines have been found widely and increasingly such as the treatment of waste water, toxic gases and liquids, noisy level and other pollutions.

According to the above information, it can be found that the natural resources problem still exists. The resources are decreasing while the environmental problem has been controlled by the strictly criterions altogether with the launched campaign of

environmental friendly factory by the government. However, as industrial sector is the main driver of China economic development, environmental problem is still a problem to be resolved further.

When consider to China's industrial sector impacts, both positive and negative sides can be found and the occurred problems still need a long-term resolution. Adaptation of rural people can be done by themselves or by the government supports. If Thailand decides to perform the industrial development, these impacts will be an inevitable issue. China case studies will then be the important lesson learns for Thailand in order to prevent and solve the problem immediately.

Conclusion

The impacts of China industrialization to the adaptation of rural people have been observed in several dimensions. For agricultural sector, the utilization of machinery has increased the agricultural productivities while a lot of cultivated areas have been replaced by many industrial factory establishments. The continuous decline of cultivated areas has impacted a lot to the national problem about nutritional stability. The employment issue is also another impacted part. When the cultivated areas had been transformed to be the areas for industry, local agriculturists then turned to be factory workers. Agriculturists from other areas also joined for work at the factory due to a lot of labors required along with more attractive returns offered. These lead to the reduction of workforce portion in the agricultural sector continuously while the number of workforce in industrial and service sectors trend

to increase. The next impact is about quality of life. As a factory worker, the increment of earnings will pave the way to the better livelihood with ability to spend more money. These will make quite the same quality of life between people in different areas. However, welfare and health care system of rural and urban people still differs so much because of the government policy that emphasized the industrial development in the urban areas. The relationship inside the family of rural people is another one impacted part. Because teenage workers moved for work in the city and the prompt in forming up a complete family is not ready together with the high living expenses, their children then had been sent to the hometown under taking care by their grandparent. The family structure in rural area then mostly consists of two generations which are senior citizens and children. Besides, the relationship between people in the society is also impacted. In the past, as agriculturists, most of rural people are poor and have no obvious social status different. The relationship was very friendly and mutually dependent until the industrialization happened. Worker who moved for work in the city have absorbed many social values from urban society such as clothing styles, high technology and advanced devices usage and new style of building construction. Besides, the relationship between people in the rural village has been changed to be more ostentatious and emulous. Helping other people depends upon the benefits. The last impact that China government has paid much attention is about natural resources and environmental issues due to the fact that industrial development requires

huge usage of natural resources and consequently generates inevitable pollutions. Presently, the government has already enforced

the strong regulations and initiated supported campaign for green industrialization.

References

Bei, Jin and Li Gang. (2010). *Road to Development: The Journey of the Chinese Economy*.

Byrd, William and Qingsong Lin. (1990). *China's Rural Industry: Structure, Development, and Reform*. Oxford University Press.

Cao, Xinshui. (1996). *Traditional Chinese Peasant Economy in Southern Jiangsu*. Central Translation Press, Beijing.

Chow, C. Gregory. (2011). *China as a Leader of the World Economy*.

Chow, C. Gregory. (2011). *Interpreting China's Economy*.

Li, Yining. (2010). *Economic Reform and Development: The Chinese Way*. Foreign Language Teaching and Research Press.

Yang, Mu. (2011). *China's Industrial Development in the 21st Century*. Papers in Academic Conference.

Rawski, Thomas. (2005). *China as Producer: Chinese Industry after 25 Years of Reform*. Conference Paper presented at the China and the World Economy Workshop (December 2005)

Ruan, Jianqing and Xiaobo Zhang. (2008). *Finance and Cluster-Based Industrial Development in China*. IFPRI Discussion Paper 00768 (May 2008).

Auty, Richard M. (1992). *Industrial Policy Reform in China: Structural and Regional Imbalances*. Transactions of the Institute of British Geographers, New Series, 17 (4): 481-494.

Bradbury, Ian, Richard Kirkby and Shen Guanbao. (1996). *Development and Environment: The Case of Rural Industrialization and Small-Town Growth in China*. *Ambio*, 25(3): 204-209.

Chan, Kam Wing. (2010). *Fundamentals of China's Urbanization and Policy*. The China Review, 10(1): 63-94.

Chan, Kam Wing and Li Zhang. (1999). *The Hukou System and Rural-Urban Migration in China: Processes and Changes*. The China Quarterly, (160): 818-855.

Chen, Chunlai, Andrew Watson, and Christopher Findley. (1990). *One State-two Economies: Current Issues in China's Rural Industrialization*. Working Paper series, Chinese Economic Research Unit, The University of Adelaide.

Chen, Weihong, Ruide Zhang, and Guichuan Liu (2009). *Development Model of Rural Industrialization in China*. Asian Agricultural Research, 1 (7): 8-12.

Chen, Xiwen (2010). *Issues of China's Rural Development and Policies*. China Agricultural Economic Review, 2(3): 233-239.

Chow, Peter C.Y. (2003). *China's Sustainable Development in Global Perspective*. Journal of Asian and African Studies, 38: 392.

Dong, Xiao-yuan and Louis Putterman. (1997). *Productivity and Organization in China's Rural Industries: A Stochastic Frontier Analysis*. Journal of Comparative Economics, 23: 146-180.

Fan, Shenggen and Xiaobo Zhang. (2004). *Infrastructure and Regional Economic Development in Rural China*. China Economic Review, 15: 203-214.

FitzGerald, C. P. (1981). *Reflections on the Character of the Industrial Revolution in China*. The Australian Journal of Chinese Affairs, (5): 65-71.

Goldstein, Sidney and Alice Goldstein. (1984). *Population Movement, Labor Force Absorption, and Urbanization in China*. Annals of the American Academy of Political and Social Science, China in Transition, 476: 90-110.

Gu, Shengzu, Lingyun Zheng and Shance Yi. (2007). *Problems of Rural Migrant Workers and Policies in the New Period of Urbanization*. China Population. Resources and Environment, 17(1): 1-6.

Guo, You-rong. (2010). *Empirical Analysis on the Rural Urbanization Development in Luoyang City, China*. Asian Agricultural Research, 2(6): 14-17.

Guthrie, Doug. (2005). *Organizational Learning and Productivity: State Structure and Foreign Investment in the Rise of the Chinese Corporation*. Management and Organization Review, 1(2): 165-195.

Jin, Hehui and Yingyi Qian. (1998). *Public VS. Private Ownership of Firms: Evidence from Rural China*. Quarterly Journal of Economics, 113(3): 773-808.

Keister, Lisa A. and Victor G. Nee. (2000). *The Rational Peasant in China: Flexible Adaptation, Risk Diversification, and Opportunity*. Rationality and Society, 13(1): 33-69.

Leeming, Frank. (1985). *Chinese Industry: Management Systems and Regional Structures*. Transactions of the Institute of British Geographers. New Series, 10(4): 413-426.

Li, Bingqin and David Piachaud. (2006). *Urbanization and Social Policy in China*. Asia-pacific development journal, 13(1): 1-24.

Li, Guilin, Jie Chen and Zhiying Sun. (2007). *Non-agricultural Land Expansion and Its Driving Forces: A Multi-Temporal Study of Suzhou, China*. International Journal of Sustainable Development & World Ecology, 14: 408-420.

Li, Hongbin and Scott Rozelle. (2000). *Saving or Stripping Rural Industry: An Analysis of Privatization and Efficiency in China*. Agricultural Economics, 23: 24 1-252.

Lin, Justin Y. (1992). *Rural Reforms and Agricultural Growth in China*. American Economics Review, 82(1): 34-51.

Lin, Justin Y. and Yang Yao. (1999). *Chinese Rural Industrialization in the Context of East Asia Miracle*. China Center for Economic Research, Beijing University, Working paper series.

Lin, Yi-min and Tian Zhu. (2001). *Ownership Restructuring in Chinese State Industry: An Analysis of Evidence on Initial Organizational Changes*. The China Quarterly, 166: 305-341.

McMillan, John and Barry Naughton. (1992). *How to Reform a Planned Economy: lessons from China*. Oxford Review of Economic Policy, 8(1): 130-143.

Mi, Benjia. (2009). *Infrastructure Investment and Regional Economic Development in China*. Asian Agricultural Research, 1(4): 21-26.

Pei, Xiaolin. (2002). *The Contribution of Collective Landownership to China's Economic Transition and Rural Industrialization: A Resource Allocation Model*. Modern China, 28: 279.

Peng, Yusheng. (2007). *What Has Spilled Over from Chinese Cities into Rural Industry?* Modern China. Sage Publications, 33(3): 287-319

Pereira, Alexius A. (2002). *The Suzhou industrial park project (1994-2001): The Failure of a Development Strategy*. Asian Journal of Political Science, 10(2): 122-142.

Pereira, Alexius A. (2004). *State entrepreneurship and regional development – Singapore's industrial parks in Batam and Suzhou*. Entrepreneurship & Regional Development, 16(2): 129-144.

Pereira, Alexius A. (2004). *The Suzhou Industrial Park Experiment: the Case of China-Singapore Governmental Collaboration*. Journal of Contemporary China, 13(3): 173-193.

Poon, Patrick S., Lianxi Zhou and Tsang-Sing Chan. (2009). *Social Entrepreneurship in a Transitional Economy: A Critical Assessment of Rural Chinese Entrepreneurial Firms*. Journal of Management Development, 28(2): 94-109

Samuel, P. S. Ho and George, C. S. Lin. (2004). *Converting Land to Nonagricultural Use in China's Coastal Provinces: Evidence from Jiangsu*. In Modern China. Sage Publication, 30(1): 81-112.

Wang, Mark, Michael Webber, Brian Finlayson and Jon Barnett . (2008). *Rural Industries and Water Pollution in China*. Journal of Environmental Management, 86 (2008): 648-659.

Wang, Zhongying and Junfeng Li. (2009). *China's Renewable Energy Development*. International Journal of Energy Sector Management, 3(1): 50-61.

Wong, Tai-Chee and Charles Goldblum. (2000). *The China-Singapore Suzhou Industrial Park: A Turnkey Product of Singapore?*. *Geographical Review*, 90(1): 112-122.

Yang, Minchuan (1994). *Reshaping Peasant Culture and Community: Rural Industrialization in a Chinese Village*. In *Modern China*. Sage Publications, 20(2): 157-179.

Zhang, Linxiu, Jikun Huang and Scott Rozelle. (2002). *Employment, Emerging Labors Markets and the Role of Education in Rural China*. *China Economic Review*, 13: 313–328.

Zhao, Yaohui. (1999). *Labor Migration and Earnings Differences: The Case of Rural China*. *Economic Development and Cultural Change*, 47(4): 767-782.

West (Last update on June 17, 2011)" [Online]
<http://www.gtlaw.com/NewsEvents/Publications/Alerts?find=136162>.

Gabriele, Alberto, 2011. "The Role of the State in China's Industrial Development: a Reassessment (Last update on June 17, 2011)" [Online]
http://mpra.ub.uni-muenchen.de/14551/1/MPRA_paper_14551.pdf.
(Accessed June 17, 2011)

The Group of Twenty Finance Ministers and Central Bank Governors Group. 2011. "G-20 Working About G-20 (Last update on June 17, 2011)" [Online]
http://www.g20.org/about_what_is_g20.aspx.

Website

Central Intelligence Agency, 2011. "The World Factbook (Last update on June 17, 2011)" [Online] <https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html>.

International Monetary Fund, 2011. "Data and Statistics (Last update on June 17, 2011)" [Online]
<http://www.imf.org/external/pubs/ft/weo/2010/01/weodata/weorept.aspx>

Ding, Calvin and Peter A. Neumann, 2011. "China's Latest Foreign Investment Policy: Moving up Market and Out

Kumar, Sanjeev. 2011. "Rural Development through Rural Industrialization: Exploring the Chinese Experience (Last update on June 17, 2011)" [Online]. <http://www.asianscholarship.org/asf/ejourn/articles/Sanjeev%20Kumar2.pdf>.

US-China Economic & Security Review Commission. 2003. "China's Industrial, Investment and Exchange Rate Policies: Impact on the United States. (2003) (Last update on June 17, 2011)" [Online]
<http://www.uscc.gov/hearings/2003hearings/transcripts/030925tran.pdf>.

Zhang, Guangsheng and Juan Zhou.2009.
“*Empirical Analysis of the Impact of FDI on China’s Urban-Rural Income Inequality — based on the Study of Inter-Provincial Panel Data. (February 2009) (Last update on June 17, 2011)*” [Online] <http://www.seiofbluemountain.com/uploadproduct/200911/2008qyjjhy01a7.pdf>.