

# Income Gap Between Urban and Rural Residents in Guangxi on the Impact of Agricultural Development

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**Abstract** The gap between urban and rural incomes in Guangxi is increasing year by year in a rising tendency, which resulted in agricultural development impact cannot be ignored. Such impact on agricultural development was analyzed from three aspects: agricultural development fund, farmland and food problems and labor force flow. The following problems were found: capitals flew to non-agricultural industry, which resulted in deficiency of agricultural development fund; farmland reduced and the problem of food supply was highlighted; labor force in rural areas emigrated, the price of agricultural products rose up. Related policies were offered: to strengthen the financial support; to speed up utilization of abundant labor force; to motivate farmers' enthusiasm in food production; to increase investment in farmers' endowment insurance and retirement pension in rural areas.

**Key words** Urban-rural gap, Agricultural Development, Affection, China

With the deepening of urbanization, the income gap between residents who live in cities and countrysides of Guangxi is larger and larger. The absolute income gap between citizens and farmers was 3969 yuan in 2000, and the absolute value reached 11 471 yuan in 2009. The gap was enlarged three times in ten years, which resulted in financial deficiency for agricultural development, reduction of agricultural acreage, yield reduction of crops and the migration of work force from rural area to cities that have side effect on agricultural development. The writer analyzed the income gap of residents living in cities and countryside of Guangxi and its effect on financial deficiency for agricultural development, farmland, crops and the flows of work force. Besides, related solution and suggestions were put up.

## 1 Income gap between citizens and rural residents in Guangxi

The main indices reflecting incomes of residents in cities and rural area are per capita disposable income of urban citizens and net income of rural residents. According to China's National Bureau of Statistics, the per capita disposable income of urban citizens refers to actual income after individual income tax, property tax and regular transfer expenditure being charged; the net income of rural residents refers to the income which can be directly invested in productive or non-productive construction, consumed for daily life and deposited after running expenses, taxes and contracting fee being paid.

From Table 1<sup>[1]</sup>, the per capita disposable income of Guangxi urban citizens in 2009 was 15 451 yuan, which increased 53.46 times than 5 834 yuan in 2000; the net income of rural residents increased from 2000's 1 865 yuan to 2009's

3 980 yuan, which increased 33.17 times. The income gap between residents in cities and rural areas of Guangxi constantly increased. The ratio of citizens' income to residents' increased from 3.13:1 to 3.88:1.

**Table 1 Annual income per capita of citizens in Guangxi from 2001 to 2009**

Year	Per capita disposable income of urban citizens Yuan	Net income of rural residents Yuan	Income ratio of urban citizens to rural residents
2000	5 834	1 865	3.13:1
2002	7 315	2 013	3.63:1
2004	8 177	2 305	3.54:1
2006	9 899	2 771	3.57:1
2008	14 146	3 690	3.83:1
2009	15 451	3 980	3.88:1

## 2 Impact of income gap on agricultural development

**2.1 Capital flows into non-agricultural industry, deficient fund for agricultural development** Financial investment is necessary for the development of agriculture and rural economy as well as the increase of farmers' income. The study researched impact of the income gap between cities and rural areas on rural capitals, focused on narrowly-defined agricultural fund, mainly including farmers' private money, financial fund and rural finance.

**2.1.1** Farmers reduced disposable fund for agricultural investment. With the population flowing from countries to cities, urbanization has brought more money to farmers. Farmers' pocket money increased and they have more spare money for investment, however, the capital invested in agriculture reduced.

The average income and expenses of farmers from 1995 to 2009 was presented in Table 2<sup>[1]</sup>. From Table 2, the net income of farmers increased annually but the productive income from non-agricultural field raised gradually. The income gap between non-agricultural production and agricultural production

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was widened gradually as well. Productive income from crop farming reduced its proportion in net income in downtrend. In 2009, non-agricultural income took up 56.6% in the net income; the per capita fixed assets expenditure increased year by year, but the ratio of production assets expenses to cash out remained at low level which fluctuated within 2% to 5% and it only arrived at 4.02% in 2009.

Such phenomenon was attributed to the following two reasons: ① Farmers' own capital increased with the raise of income, the constantly increasing gap between cities and rural areas potentially boosted rural population flowing from countries to cities. The investment of rural fund usually transferred with the migration of work force, which would result in deficiency of agricultural investment. Farmers gradually separated themselves from agriculture as they went out working in cities where

**Table 2 Average income and expenses of farmers from 1995 to 2009**

Year	Per capita income of farmers//Yuan	Production income Yuan	Income from planting Yuan	Non-farming production Yuan	Income ratio of planting to the net//%	Cash out Yuan	The ratio of production assets expenses to cash out//%
1995	1 446.14	1 347.15	593.49	753.66	44.06	1 389.54	3.15
2000	1 864.51	1 764.20	674.00	1 090.20	38.20	1 809.36	2.81
2006	2 770.50	2 670.02	1 009.33	1 660.69	37.80	3 121.08	3.11
2008	3 690.28	3 459.39	1 352.79	2 106.60	36.66	3 931.71	4.27
2009	3 980.44	3 683.20	1 428.70	2 254.50	35.89	4 146.26	3.86

**2.1.2** Insufficient financial support to agricultural development. Financial investment is a powerful method for adjusting agricultural development in developing countries and the fund for agricultural development is usually related to agricultural investment policy made by government. In Guangxi, the ratio of fiscal expenditure for agriculture fluctuated within the range from 8% to 13% and remained at low level. This revealed the insufficient support to agricultural development. Agriculture is the primary industry and weak industry in national economy. As a weak industry, it has less yield and rate of return, slower fund flow speed and less contribution to the economic growth. Essentially, it should not be treated as a critical field for fiscal investment. But as the basis of national economy, the steady development of agriculture ensures the safety of a whole country. Practical measures should be implemented for fiscal expenditure to increase financial support to agriculture, especially to farmers so that farmers' income will increase and the impact caused by urban-rural gap can be mitigated.

**2.1.3** Financial support needs to be strengthened in rural area. The financial environment and insurance of rural areas lagged behind, the floating lending rate is excessive and financial institution shrinks with weak competence. All of these are mainly attributed to the increasing gap between urban and rural areas. The present development of rural areas was not attractive enough to financial investment which was injected into the investment for constructions and development of cities. Consequently, the gap was further enlarged.

**2.1.3.1** "Double identities" leads to difficulty in capital raising. The Chinese Academy of Social Sciences made an investigation in May, 2010. The result indicated that: migrant workers who were born before 1980s' were unwilling to transfer their registered permanent residence to cities. Even in those who were born in 1980s', there were 75% of them were unwilling to transfer the residence into cities. For those who would like to transfer residence into cities, only a half will return contracted

farmlands. Legally, they are still rural population if they keep the permanent residence in rural areas. The "Double identity" helps them avoid risk. With such migration model of population, private investors were able to use farmlands and the land tenure was not shifted efficiently. Therefore, it was difficult to form intensive management of agriculture. Extensive management and low rate of return conflict with "security, mobility and profitability" which is the operation goal of financial fund.

② Farmers are treated as a vulnerable group in the society. Additionally, the social security of Guangxi is incomplete. According to estimation of cities in Guangxi in 2008, the endowment insurance covered 38.03% labor force which only finished 40.03% of the target value (95%)<sup>[2]</sup>, let alone rural areas. Thus, farmers are the biggest group that should be eluded from risk. Working in cities and earning wages is easier to accept than farming, so farmers are unwilling to get money from agricultural production. Thus they will invest less and less in agriculture, which is also a result caused by the annually increased urban-rural gap.

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**2.1.3.2** "Trickle-down theory" resulted in marginalization of agriculture. It has been acknowledged that the economic growth in developing countries solves "Tricke-down theory" of all problems. Since the foundation of China, especially the reform and opening-up, the developing trend has been centered on economic development at all times, especially the inclination to industrial development. Substantially, agriculture is a weak industry and the rural economy is weaker than urban economy both in quantity and the speed. The income gap between cities and rural areas enlarged the developmental gap between cities and rural areas. In recent years, agriculture was kept at an incompetent position of Guangxi economic system although the rural economy developed to some extent. The holistic situation is not optimistic and agriculture is gradually marginalized, hence the financial support is more difficult to get.

**2.2 Reduction of farmlands and serious problem of food supply** As a media for agriculture, farmland is a vital element in food production linkage. Stable farmland area is relevant to the steady growth of total food production and is also significant for steady development of agriculture. The income gap between cities and rural areas resulted in reduction of farmlands and a problem of food supply in turn<sup>[3-4]</sup>.

**2.2.1** Farmland reduction caused by urban-rural gap. According to statistics, farmland area in Guangxi was kept around  $440.79 \times 10^4$  hm<sup>2</sup> from 2004 to 2006, but the number reduced to  $421.75 \times 10^4$  hm<sup>2</sup> in 2008 with the reduction of  $190.49 \times 10^4$  hm<sup>2</sup> which revealed a sharp decline of farmland. The following

will discuss farmland decline caused by urban-rural gap from three aspects.

**2.2.1.1 Labor force outflow and idle farmland.** Based on Lewis' population flow model and the typical dual economic structure of Guangxi, urban-rural gap is a motivation for outflow of labor force in rural areas and farmers swarm into cities for maximum profit. Labor force in Guangxi has typical amphibious features: one type is part-time or seasonal. Such kind of labor force returns to countryside during busy farming season but works in cities in other time. Another type is perennial or periodic. They spend most of their time working in cities and leave the farmlands unploughed.

**2.2.1.2 Urbanization expands and farmland shrinks.** With the economic development of Guangxi, the acceleration of urbanization and increasing construction of infrastructural facilities for energy, water conservancy, transportation, lands for construction expanded constantly and it is irreversible that some farmlands will be used for non-agriculture purpose. A great quantity of rural labor force swarm into cities plus people in cities have an increasing demands for land and houses, as a result a gradually extended trading market of land use right was established because rural labor force prefer to obtain profit from the exchange of farmland use right. However, such tendency will drive urbanization, boost construction of infrastructure facilities. The expanding construction border of urbanization will eventually replace farmland with residential buildings, flyovers, highways. Presently, reserved farmland can replenish the use in Guangxi and maintain the balance in a certain region for a while. But it is difficult to turn around the sharp decline of per capita farmland with the growth of population.

**2.2.1.3 The structural adjustment of agricultural industry led to sharp decline of farmland.** Since the grain price in China remained at low level, on the contrary, production costs such as the price of chemical fertilizer and pesticide is soaring. Thus, the comparative efficiency and relative advantage reduced, which might be unable to motivate the enthusiasm of farmers or government for producing grains. Contrarily, cash crops such as sugarcane and vegetables have better relative benefits, so the planting areas of cash crops are being expanded due to the encouragement of government and farmers' own initiative. To narrow the urban-rural gap and increase income, farmers usually choose to plant crops with better economic benefit and most of them dislike grain production, as a result a large number of farmland reduced and the quality also got worse.

**2.2.2 Reduction of farmland caused food shortage.** Urban-rural gap resulted in outflow of rural labor force, unploughed farmland and reduction of grains; on the other hand, farmers prefer to plant cash crops to increase their income so less farmland was used for food production. The grain yield declined and the ratio of grains planting area to total planting area also reduced from 63.7% (1995) to 52.6% (2009). In 2010, the sugarcane yield of the total region was  $7\,119.6 \times 10^4$  t and the cassava yield was  $173.2 \times 10^4$  t, both of which topped in nationwide. But the food production was only  $1\,406 \times 10^4$  t which was less the yield of 1995 and reduced 3.9% than that of 2009<sup>[5]</sup>. From 2005 to 2008, food possession was separately 320, 312, 294 and 291 kg/person while the number was 371, 379, 381 and 399 kg/person in the nationwide. The data of Guangxi respectively reduced 51, 67, 87 and 108 kg/person.

The gap sharply ascended so food production became a serious problem that can not be ignored.

**2.3 Outflow of rural labor force and rising price of agricultural products** Todaro's model of population flow revealed that population keep flowing from rural areas to cities as long as the present value of the income in prospective city is larger than the present value of the future income in countries<sup>[6]</sup>. The income gap between cities and rural areas increased fast in Guangxi. With the increasing urbanization of Guangxi, the gap will be enlarged continuously, so that rural labor force will move to cities at quicker speed and in larger quantity.

In fact, the undeveloped agriculture in Guangxi requires more strong male labor force. Nonetheless, the excessive outflow of male labor force impeded the enhancement of agriculture. In Guangxi, 70% of the food producers were women, children and old people. In the outflow of labor force, male labors take larger proportion<sup>[5]</sup>. As a critical element in the three factors constituting productivity, labor is the subject and creator of laboring. The outflow of rural labor forces led to few people working on farmland and the decline of productivity directly brought soaring price of agricultural products. According to official statistics, the price of food reached 7.1% in 2010 and it was the maximum increment which resulted in 2.3% increment of CPI.

### 3 Policy suggestion

The side effect of urban-rural gap should be mainly reduced in following directions: firstly, government has to make policies that increase financial support and encourage farmers to invest more money on agriculture; secondly, to speed up the construction of new socialist countryside, improve living standard, increase employment in rural areas, take full advantage of redundant labors and narrow the income gap between cities and rural areas in order to reduce the urban-rural gap; thirdly, the government has to guide farming, regulate prices of agricultural products, offer subsidy to farmer dealing with farming work so that their enthusiasm can be aroused. On the other way round, it is necessary to enhance labor quality and upgrade their producing skills. Lastly, the investment on endowment insurance and retirement pension in rural areas should be increased to get rid of their worries after retirement.

### References

- [1] Guangxi Bureau of Statistics. Guangxi statistical yearbook 2001–2010 [M]. Beijing: China Statistics Press, 2001–2010. (in Chinese).
- [2] LV YS, SONG BQ, FENG HS. The process of building a moderately prosperous society: comparison and analysis between Guangxi and China[J]. Nanning: Guangxi People's Publishing House, 2010; 78. (in Chinese).
- [3] MA XH, LAN HT. Prominent problems and suggestions of comprehensive grain production capability and grain security in China[J]. Reform, 2008(9): 37–50. (in Chinese).
- [4] LIU YX. Analysis on cultivated land quality and countermeasures for its conservation in Guangxi[J]. Guangxi Agricultural Sciences, 2010, 41(6): 629–631. (in Chinese).
- [5] Bureau of Statistics of Guangxi Zhuang Autonomous Region, National Bureau of Investigation Corps of Guangxi. Guangxi continued to maintain and expand a good momentum in economic development in 2010 [EB/OL]. (2011–01–21) <http://www.gxtj.gov.cn/show.asp?typid=82&id=7941>. (in Chinese).
- [6] BAI NS, LI J. China's urbanization and rural labor migration[J]. Chinese Journal of Population Science, 2008(4): 2–10. (in Chinese).