



# Sustainable Local Agriculture to Support Liuzhou's Metropolitan Complex

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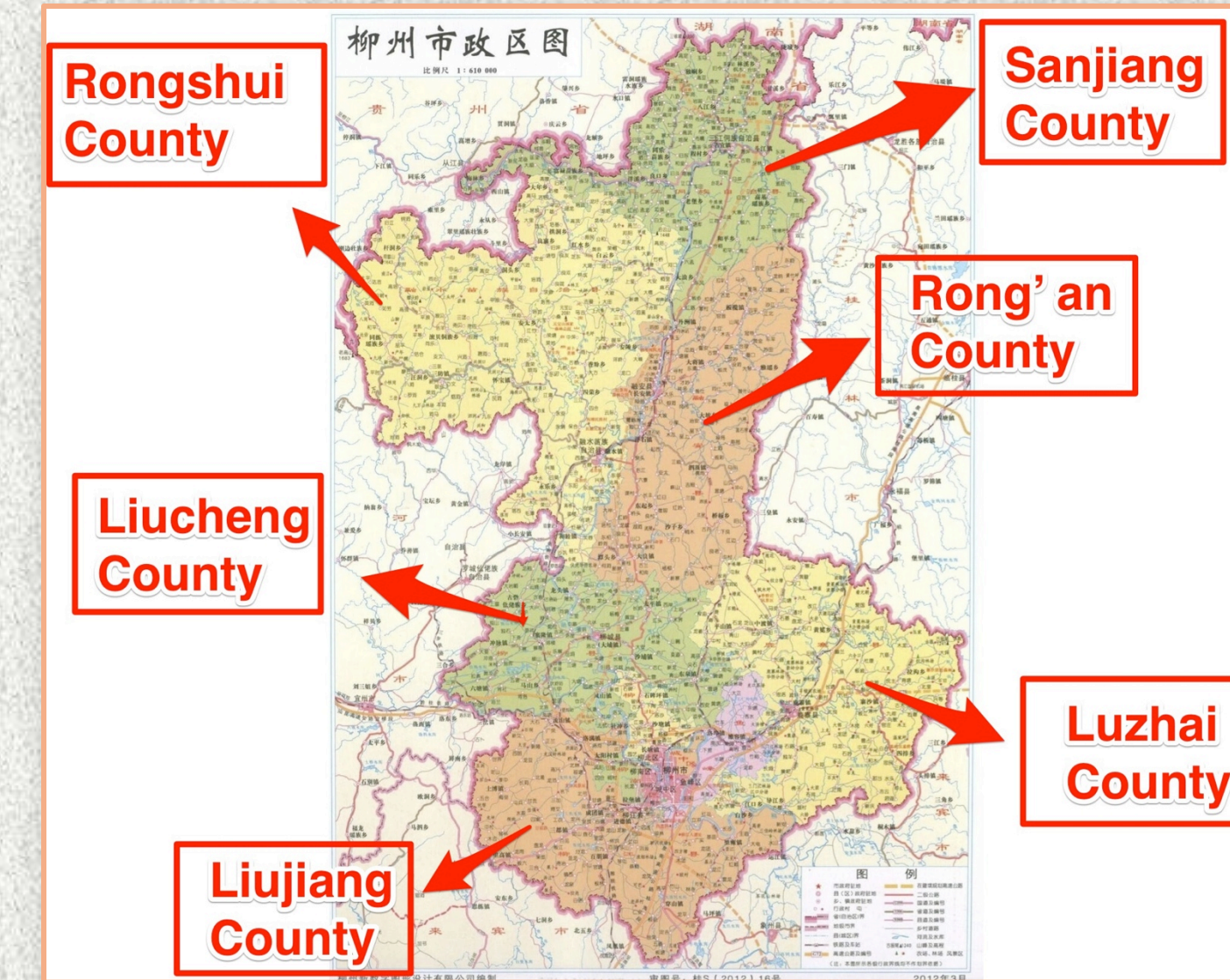


## ABSTRACT

In China a majority of the population is involved in the large agricultural economy. Since rural incomes lag well behind those of urban areas, improving farm income is a major concern. The rising demand for meat caused by the development of the urban economy and society makes development of a breeding industry a mutually beneficial way to do it. Liuzhou city has a rural population of 1,596,800, accounting for 41.75% of the total resident population. The municipal government is focused on the efforts to develop the whole city's breeding industry, but it could not be done using traditional methods. Small backyard breeding operators posed a serious constraint to the development of breeding industry because of the large fluctuations they created in meat prices. These economic conditions were not conducive to expansion of the scale of breeding, but only such an expansion could solve the problem. Through a series of policies that provide financial support and loans through banks to the breeding enterprises at a discounted rate the Liuzhou City government is mitigating the market problem and eliminating it over time as livestock production transitions from the traditional backyard model to standardized and large-scale breeding. After six years, the large scale-breeding rate has reached over 50% and the value of livestock production accounts for 30.88% of total value of agricultural output. The per capita net income of farmers has shown an annual growth rate of 14.53% reaching \$191.93 dollars at present.

## MEASURES

Since 2008, the Liuzhou Municipal Government has issued Decision on Accelerating Development of Breeding Industry, to increase the proportion of breeding industry among industries, and promote rapid development of breeding industry.



**Adjusting the Breeding Structure.** For the animal husbandry, attach most importance to the vigorous development of herbivores; gradually improve the traditional breeding methods of live pigs, and try to develop standardized and large-scale breeding. For aquatic products, transform the traditional breeding to standardized breeding, and vigorously develop resource-saving breeding industries.

**Financial Support.** The municipal financial department will use 50% of annually increased agricultural productive investment in the breeding industry, and supplement 3 million RMB Yuan each year.

**Planning Development Layout of Breeding Industry.** Guide the six counties and the four urban districts to rely on the existing industrial base, optimize production allocation, and highlight the regional advantage. So far it has initially formed breeding zones which are located in the counties of Liujiang, Liucheng and Luzhai, and focused on the large-scale, standardized and variety-improved breeding of pig, poultry, cattle and aquatic products. The northern counties of Rong'an, Sanjiang and Rongshui have developed advantaged and specialty large-scale breeding.



**Loans with Financial Discount.** Since 2009, the administrative departments of fishery and animal husbandry have signed cooperation agreements with five financial sectors, to issue loans with finance discount for the breeding industry through banks, and focus on supporting leading breeding enterprises, members of farmer specialized cooperatives, and large-scale farms that play a leading role in farmers' income increment. The administrative departments of fishery and animal husbandry have annually arranged 10 million RMB Yuan for interest subsidy fund.

## problem

Breeding industry in Liuzhou city mainly concentrated in rural areas. Over years, livestock breeding in rural areas mainly exhibited as small amount of breeding in each backyard. With the development of economy and society, the demand for meat in the market increases sharply, and the breeding problem starts to highlight.

**Huge Market Fluctuation.** Meat price in market directly affects the income and breeding initiative of the farmers. Meat price goes high, the breeding amount of farmers increases, resulting in lower prices. Farmers reduce or give up breeding, the slaughter rate reduces, leading to meat price rise in the market. This cycle repeats, resulting in fluctuations of meat price and supply in the market, which greatly hurts the interests of farmers and affects meat supply in the market.

### Not Conducive to Expand the Scale of Breeding.

Livestock farming in rural areas is small, lacks of development space, which limits the expanding of the breeding industry and implementation of modern breeding techniques. And rural breeding area is geographically dispersed, with low degree of specialization and socialization, which can not form a centralized breeding industry chain.

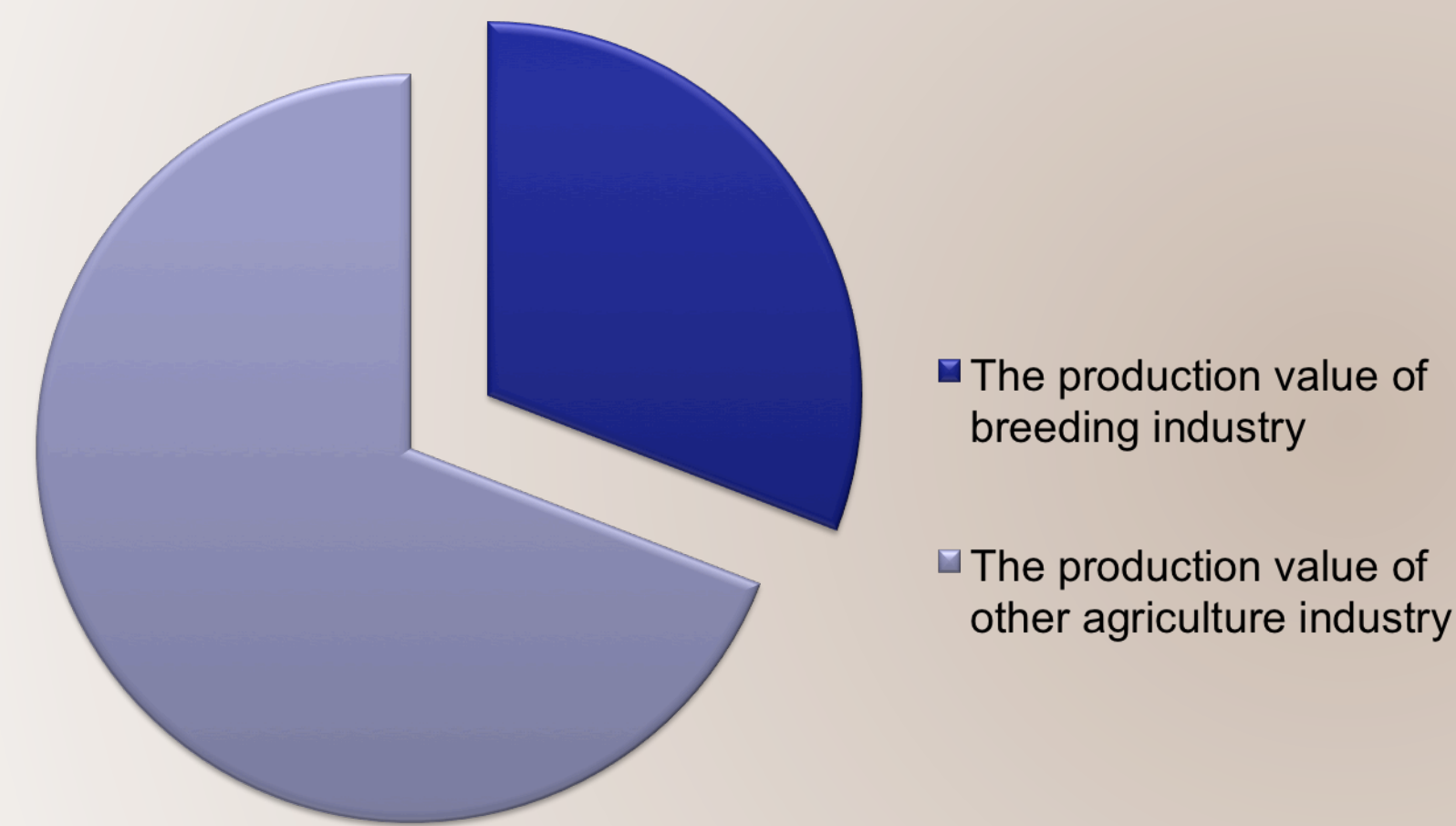


**Poor Ability in Resisting Diseases and Natural Disasters.** Polyculture in rural areas, poor isolation conditions, pollution between human and livestock, susceptible pathogenic microorganism population and outside farming of livestock, due to the climate change and migratory birds, it is difficult to control livestock disease, and easily leads to the occurrence of zoonotic diseases. As most of the farmers have low educational level, lacking of awareness of breeding science, safety breeding and disease prevention, resulting in an increased risk of breeding further.



## OUTCOMES

Up to 2013, there were 4114 large-scale livestock breeders in the city, and had initially formed 63 various breeding zones, 28 breeding bases, and 232 breeding demonstration villages. The large scale breeding rate of live pig and poultry had respectively reached 55% and 65%. There were 113 large-scale aquaculture breeders who had a breeding area of more than 3 hectares. And 105 thousand square meter of cage culture had been developed.



According to the statistic data of 2013, total production value of fishery and animal husbandry of the whole city was 1.31 billion dollar. The production value of fishery and animal husbandry accounted for 30.88% of total value of agricultural output. The annual total meat output was 223.6 thousand tons. The per capita net income of farmers getting from breeding was 191.93 dollar, which had a year-on-year growth of 14.53%.



## CHALLENGES

**Land shortage.** The high cost and difficult acquirement of breeding lands adversely affect the rapid development of scale farming.

**Pollution.** Large-scale farms have increased dramatically, but the scale farming layout is not rational. Many farms are not equipped with pollution treatment facilities, as a result, environmental pollution has aggravated in the breeding industry.

## REFERENCES

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