

# *Strategies for the Development and Utilization of Agricultural Resources in Agricultural Cultural Heritage Sites of Henan Province under the Shared Economy in the Internet Era*

Li Maolin

*College of Forestry, Xinyang Agriculture and Forestry University, China, 464000*

**Keywords:** shared economy; agricultural resources; opening up; “going out”

**Abstract:** In recent years, agricultural cooperation and exchanges between Henan and the countries with shared economies have made some progress, but on the whole, there are still some problems in the opening up of Henan agriculture in the Internet era. Henan should actively integrate into the construction of shared economy, seek agricultural cooperation on a larger scale, further optimize the agricultural trade structure, innovate the agricultural foreign investment model, expand the space for agricultural technology exchange, increase policy support, and strive to build a new pattern of Henan's agricultural opening up in the Internet era. This paper first analyzes development of Henan agricultural resources under the sharing economy in the Internet Era. And then this paper analyzes the competitiveness and development of agricultural resources. In the end, it puts forward suggestions and countermeasures for development of Henan agricultural resources.

## 1. Introduction

In March 2015, the National Development and Reform Commission, the Ministry of Foreign Affairs, and the Ministry of Commerce jointly issued the "Vision and Action for Promoting the Construction of the Silk Road Economic Belt and the 21st Century Maritime Silk Road", proposing to "expand the mutual investment field and carry out agriculture and forestry." Under the sharing economy initiative, Henan's active participation in international agricultural cooperation is an inevitable choice for upgrading Henan's agricultural competitiveness and opening up to the outside world. It is also an urgent need to promote Henan's agricultural supply side structural reform and implement a rural revitalization strategy, which is conducive to further accelerating Henan<sup>[1]</sup>.

## 2. The development of Henan agricultural resources under the sharing economy in the Internet Era

### 2.1 The growing export of agricultural products

The continuous improvement of the collection capacity of CEIBS (Zhengzhou) has brought significant development opportunities for Henan agricultural exports. Henan accelerated the

upgrading of agricultural technology standards, further optimized the agricultural structure, and increased the added value of agricultural products. The development of agricultural export bases has been gradually regionalized, clustered and standardized, as shown in fig 1 below. It shows the proportion of information on the export of Henan agricultural products to countries around the world:

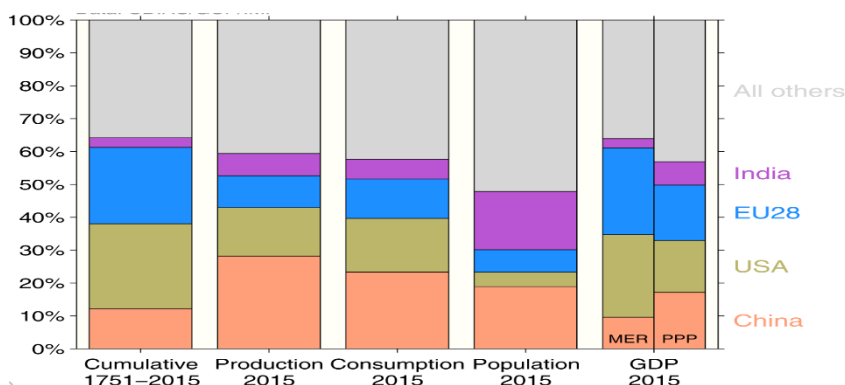


Fig 1: The current situation of agricultural products export in Henan

As shown in Figure 1 above, according to Zhengzhou Customs statistics, Henan agricultural exports in 2017 were 14.92 billion Yuan, up 16% year-on-year; in the first two months of 2018, the province's agricultural exports were 2.31 billion Yuan, up 65.2% year-on-year, including along the sharing economy. The country exported 1.29 billion Yuan of agricultural products, an increase of 1.4 times, accounting for 12.4% of Henan's total exports to countries and regions along the previous two months<sup>[2]</sup>.

## 2.2 Accelerating agricultural production capacity cooperation

In recent years, Henan encouraged agricultural leading enterprises to purchase land and rent land to set up farms, carry out agricultural planting, build agricultural product processing and marketing bases, and carry out overseas agricultural product processing trade. With the support of a series of policies, Henan's agricultural "going out" pace has accelerated significantly, and key agricultural cooperation projects such as Yuwu (Ukraine) have been promoted in an orderly manner, which has played a good demonstration effect<sup>[3]</sup>.

## 3. Problems in Henan agricultural cultural heritage into the construction

The ability of agricultural products to earn foreign exchange is insufficient. Most of Henan's agricultural exports are still primary agricultural products, and the ability to earn foreign exchange is relatively low. The proportion of high-tech and deep-processed agricultural products exports needs to be improved, and there is still room for improvement in the types, structure and scale of agricultural products trade. At present, Henan's agricultural exports are mainly concentrated in Asia and North American countries. Most of the developing countries along the sharing economy have not signed agricultural trade agreements, and agricultural trade is not active enough. As shown in Figure 2, Henan exports agricultural resources to other countries under the shared economy. Distribution map:

Compared with other provinces in China, the export trade volume of Henan agricultural products is quite different. According to the Ministry of Commerce's "China's Agricultural Products Import and Export Monthly Statistical Report" data, from January to November 2017, the foreign exchange earned by the agricultural products in Shandong, Guangdong, Fujian, Zhejiang, Liaoning, Yunnan and other provinces were 7.96, 4.38, 4.18, respectively. , 2.40, 2.28, 2.04 times. The agricultural

production cost in Henan is high and the efficiency is low, especially the quality of agricultural products needs to be improved.

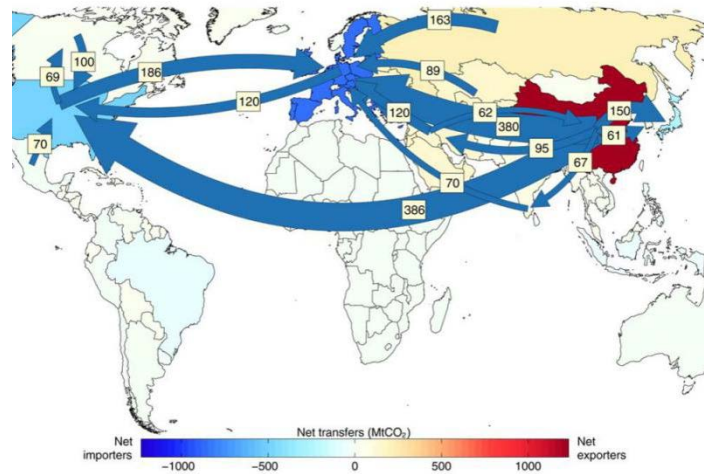


Figure 2: Henan's export trend towards world trade under the shared economy

#### 4. The competitiveness and development of agricultural resources in the Internet Era

##### 4.1 Analysis of product competition level

Agricultural trade is the most direct manifestation of international agricultural cooperation, and the potential and unique advantages of agricultural resources are the basis of agricultural trade. The agricultural development of countries and regions along the agricultural and sharing economy in Henan has strong complementarities. Henan has good natural conditions in agriculture, and there are many types of crops and rich agricultural products. Generally speaking, the higher the degree of similarity, the higher the competition level of a product between the two products. Its formula is expressed as:

$$SP(ij, k) = \left\{ \sum_1 \left[ \left( \frac{(X_{ik}^1/X_{ik}) + (X_{jk}^1/X_{jk})}{2} \right) \times \left( 1 - \frac{|(X_{ik}^1/X_{ik}) - (X_{jk}^1/X_{jk})|}{(X_{ik}^1/X_{ik}) + (X_{jk}^1/X_{jk})} \right) \right] \right\} (1) \times 100$$

Where  $SP(ij, k)$  denotes the product similarity index  $i$  and  $j$  of the export of  $i$  product and product  $j$  to market  $k$ , indicating any two products to be compared,  $k$  represents the third market or international market, and  $X$  represents the export.  $X_{ik}^1/X_{ik}$  Represents the share of the first product exported by the product  $i$  to the  $k$  market.  $X_{jk}^1/X_{jk}$  represents the share of the first product in the products exported by the  $j$  product to the  $k$  market.

##### 4.2 Analysis of agricultural resources evaluation results

According to variation coefficient weighting method, taking each evaluation index as random variable, the standardized value and variance of each index were calculated and normalized, and the weight coefficient of each index was obtained. Let  $X$  be the original data matrix, which is shown as the figure 3.  $X_i$  is the JTH index value of the  $i$ th object,  $m$  is the number of evaluation indicators, and  $n$  is the number of evaluation objects. The standard deviation is shown as the figure 4. The index variation coefficient is shown as the figure 5. We normalize the variation coefficient of each index, and then determine the weight of each index. The index weight is shown as the figure 6.

$$X = \begin{bmatrix} x_{11} & x_{12} & \cdots & x_{1m} \\ x_{21} & x_{22} & \cdots & x_{2m} \\ \cdots & \cdots & \cdots & \cdots \\ x_{n1} & x_{n2} & \cdots & x_{nm} \end{bmatrix}$$

Figure 3:the original data matrix

$$\bar{x}_i = \frac{1}{n} \sum_{x=1}^n x_{ix} \quad (i = 1, 2, 3, \dots, n);$$

$$S_i = \sqrt{\frac{1}{n} \sum_{x=1}^n (x_{ix} - \bar{x}_i)^2} \quad (i = 1, 2, 3, \dots, n)$$

Figure 4:The standard deviation

$$V_i = \frac{S_i}{\bar{x}_i} \quad (i = 1, 2, 3, \dots, n)$$

Figure 5:The index variation coefficient

$$w_i = \frac{v_i}{\sum_{i=1}^n v_i} \quad (i = 1, 2, 3, \dots, n)$$

Figure 6:The index weight

We can get the comprehensive weight of the evaluation indexes at all levels of agricultural resource value. The comprehensive weight is shown as the table 1.

Table 1: The comprehensive weight of the evaluation indexes

Index	Aesthetic value	Participate value	Cultural value	Cluster value	Scientific value
Value	0.18	0.22	0.19	0.20	0.21

## 5. Countermeasures for the agricultural resources development under the sharing economy in the internet era

### 5.1 Develop new models for agricultural investment cooperation

Promote Henan's planting, breeding, agricultural production, agricultural product processing, agricultural machinery, warehousing and logistics and other related industries to “go global”, rationally allocate resources on a global scale, and gradually form regional agricultural supply chains, industrial chains and value chains, which are in line with the line. The interests of the state and the region are also the needs of Henan to build a modern agricultural province. At the same time, it can also drive a large number of agricultural professional technicians and experienced and capable farmers to work and start businesses along the line, and promote Henan agriculture to be more open and proactive. Henan enterprises use advanced technology and well-known brands to participate in global agricultural market competition through investment, mergers and acquisitions.

## 6. Conclusions

In the construction of shared economy, China has creatively proposed the development concept of “Green Silk Road”. Therefore, Henan agriculture “going out” should establish a green development concept, strictly follow the specific provisions of the investment country's environmental protection standards, pay attention to the protection of the local environment, actively develop green ecological recycling agriculture, and ensure the sustainable development of agriculture in the investment country. Standardize the investment and business practices of agricultural enterprises to prevent adverse impacts on local land and water sources; carefully transfer land for food crops to other crops, avoiding a sharp decline in grain output in the investing countries and affecting food security in the investing countries.

## Acknowledgement

The Humanities and Social Sciences Research Project of the Chinese Ministry of Education in 2017 (No. 17YJCZH090); The Humanities and Social Sciences Research Project of Henan Education Department, China in 2018 (No. 2018-ZZJH-431); The Research Project of Henan Social Sciences Federation and Economic League Association in 2017 (No. SKL-2017-962)

## References

- [1] Zhou R, Liu Y, Li S, et al. Polymorphisms analysis of the *Plasmodium ovale* tryptophan-rich antigen gene (*potra*) from imported malaria cases in Henan Province.[J]. *Malaria Journal*, 2018, 17(1):127.
- [2] Huang L, Sun Y, Jin Y, et al. Development of high transferability cpSSR markers for individual identification and genetic investigation in *Cupressaceae* species[J]. *Ecology & Evolution*, 2018, 8(10):4967-4977.
- [3] Zhu K, Zhen L, Tan X, et al. Study on the ecological potential of Chinese straw resources available for bioenergy producing based on soil protection functions[J]. *Biomass & Bioenergy*, 2018, 116:26-38.