

**MTMSD 2022****I International Conference «Modern Trends in Governance and Sustainable Development of Socio-economic Systems: from Regional Development to Global Economic Growth»****RURAL REVITALIZATION: INTERNATIONAL EXPERIENCE  
AND CHINESE ROAD**

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**Abstract**

From common green agriculture development, ecological circular agriculture development mode, in accordance with the law for the farmers, financial services, infrastructure construction, agriculture technology innovation and professional farmers education to summarize the modern agricultural development experience of agricultural developed countries such as the United States, Japan, Korea, Russia, European countries, to provide reference for the establishment of China's rural revitalization policies. The purpose of the study is to substantiate the priorities for the revitalization of rural areas in China based on a generalization of global experience in territorial development. The research methods used are methods of analysis and synthesis of scientific literature, review of policy documents, quantitative analysis of indicators of the agricultural sector of China according to official statistical sources (grain production, living conditions, share of the manufacturing industry, share of the employed population), methods of abstraction and induction, forecasting possible consequences and impact on the economy. As a result of the study, the conceptual elements of innovative state policy in relation to rural areas are scientifically substantiated, including stimulation of cooperation “company + peasant farm”, “company + cooperative + peasant farm”, development of moderate management of agriculture, effective distribution of land, capital, technology, labor and other factors of production.

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## **1. Introduction: Research Background and Purpose**

Since the founding of the People's Republic of China, both before and after the reform and opening up, the focus of economic and social development has been on cities and industry, while the countryside and agriculture have made enormous sacrifices and contributions to this end. The lag of the rural development of China's realistic national conditions have decided that without agricultural rural modernization, there will be no national modernization. At present, compared with the developed countries, countryside is still a serious short board in the course of our country's development. Compared with urban areas, rural areas have become increasingly prominent in terms of economic backwardness, environmental degradation, weak infrastructure and hollowing out of the working population.

In the process of industrialization and urbanization, developed countries and regions also experienced lagging rural development. Their exploration and practical experience in developing rural economy and solving rural problems have formed their own rural development paths. Our country has much population and little arable land, economic development is lopsided and the foundation of agriculture is poor. On the road to rural revitalization, although we cannot copy the development models of developed countries and regions, we can draw on international experience and combine China's national conditions to formulate a scientific rural revitalization strategy and explore a Chinese road that can steadily promote agricultural and rural modernization.

## **2. Purpose of the Study**

The purpose of the study is to substantiate the priorities for the revitalization of rural areas in China based on a generalization of global experience in territorial development.

## **3. Research Methods**

The research methods in the work are the analysis of literary sources, abstraction and formulation of the problem, identification of positive experience in solving similar problems, quantitative analysis and grouping of time series of key indicators of the development of agricultural territories according to official statistics of China (production volumes, living conditions, share of manufacturing industry, share of employed population), . To formulate the author's proposals to substantiate the priorities for the revival of rural areas in China, methods of abstraction and induction, forecasting possible consequences and impact on the economy were used.

## **4. Research Question**

The limitations of the time intervals for sampling quantitative indicators (2011-2020) are due to the availability of available official sources of information at the time of the study (2022). Expert forecast estimates of these indicators show the continuation of existing trends and dynamics for 3-5 years.

## 5. Problem Statement: International Experience in Rural Revitalization

Rural areas are the driving force of society, providing many of the urgent needs of the population for food, combining large spaces and volumes of labor resources. At the same time, it is rural areas that are in dire need of civilized infrastructure: transport accessibility, quality healthcare, cultural and educational environment, industry to maintain and ensure the living conditions of the rural population. Improving the well-being of the population, fighting poverty, increasing employment, improving the quality of education and healthcare are the most important goals for rural areas of any country in the world. In China, this problem is especially acute. In the context of sustainable development, it is important for modern states, including Russia, to study how such goals are integrated into national policies and development programs.

**This study is fundamental**, covering the theoretical and methodological basis on scientific issues.

### 5.1. Common Characteristics of Green Agriculture Development Stage

Agricultural green development is the trend of world agricultural development (Du & Jin, 2021). The United States, the Netherlands and Japan have some common practices and characteristics worth learning in the process of promoting the green development of agriculture.

First, although there are differences in development periods and development priorities, the development of green agriculture in various countries is generally carried out in the following aspects: input reduction, water saving and land saving, soil fertility maintenance, and agricultural multi-functional utilization. Second, in the process of transforming agriculture to green development, they all attach great importance to the research, development and application of green ecological technologies.

The United States is the main supplier of agricultural technology in the world and attaches great importance to the research and development and utilization of green agricultural technology. The Netherlands is highly supportive of research and development of highly efficient and low-residue pesticides and biopesticides; Japan pays attention to the research and development of ecological and green agricultural technology. Third, all countries use government programs and special actions to achieve green development goals, such as the Netherlands' circular agriculture Development action plan, the United States and Japan have similar special actions and programs. Fourth, countries have made sustainable agricultural development a major priority. The agricultural policy objectives of the Netherlands have gradually added environmental protection, natural landscape preservation, climate change mitigation and other contents, while the United States and Japan have incorporated agricultural environmental protection into the agricultural law system and made it clear that it is one of the agricultural development policy objectives. Fifth, all countries have promoted and implemented green agricultural development through the enactment and implementation of laws and regulations, and the law-based governance of agriculture is extremely prominent.

## **5.2. Development Model of Ecological Circular Agriculture**

Compared with China, where ecological circular agriculture has just started, developed countries have advanced experience (Qiao & Wang, 2019).

American precision agriculture model. The United States was one of the first countries in the world to implement precision agriculture. Precision agriculture is a modern agricultural production system based on information and knowledge management (Fang & Li, 2018). The US "Green Star" precision agriculture system is based on GPS and GIS system, combined with the Internet of things technology, widely used in the mechanized production of large and medium-sized farms, using the power of science and technology, through accurate management, to maximize the optimization of agricultural input and high yield of quality.

Japanese resource reuse model. This model is characterized by the emphasis on the reuse of waste resources. As early as the 1980s, Japan banned the use of non-organic fertilizers, and the unified treatment of agricultural waste, then turned into organic fertilizer for use. Through the fermentation equipment, the methane gas produced by the fermentation of kitchen waste, poultry manure, rice husk and so on is used for electricity generation, and the residual is reprocessed to form compost or harmless emission.

German green energy model. Germany combines the agricultural system with the eco-industrial system to form a unique "green energy" agricultural model. They use crops to convert solar energy into organic energy, which is stored in plants and then converted into energy for human use. In the 1990s, Germany began extracting energy alternatives such as methane and ethanol from crops. Germany regards rapeseed as an important energy crop, from which plant diesel is used as power fuel.

## **5.3. Rule of Agriculture by Law in Agricultural Transformation**

One of the reasons for the successful development of green agriculture in developed countries is that they have designated corresponding laws and regulations based on their national conditions at different stages of development (Du & Jin, 2021; Qiao & Wang, 2019).

United States Agricultural Law. In 1993, the United States introduced the first law concerning agriculture, the Agricultural Adjustment Act. In 1965, the first law concerning eco-circular agriculture, the Solid Waste Treatment Law, was introduced to prevent agricultural source pollution from the institutional level. Enacting and implementing the Agricultural Trade Development and Assistance Act, the Food Security Act, and the Food, Agriculture, Soil and Water Conservation and Trade Act to protect land; In 1985, the Food Safety Law was promulgated, incorporating "environmental protection" into the agricultural legal system for the first time. The Agricultural Security and Rural Investment Act of 2002 increased subsidies to farmers; Later, 17 agricultural laws, including the Organic Farming Law and the 2014 Farm Bill, have been introduced, forming a complete agricultural legal system.

Dutch agricultural law. In the 1980s, the Dutch farming industry and livestock industry were seriously separated, resulting in the use of a large number of chemical fertilizers in agricultural areas due to the lack of fertilizer, and the overhang of animal manure in livestock industry caused serious environmental pollution. Therefore, the Dutch government began to pass legislation to strictly control the

number of livestock and poultry breeding. In addition to the right of farming, the Netherlands has successively issued the Soil Protection Law, formulated the national environmental policy plan for livestock and poultry breeding, and put forward the Fertilizer Act and pesticide reduction plan in 1987, thus gradually establishing the agricultural environmental protection regulations in the Netherlands.

Japanese agricultural law. In 1952, Japan enacted the Agricultural Land Act to ensure the legality of small-scale land management. In 1992, "Green tourism" appeared for the first time in the policy document "New Development Direction of Food, Agriculture and Countryside" in Japan, and gradually formed green tourism agriculture in the form of sightseeing farm, citizen farm and agricultural park. In the 1990s, Japan enacted a series of laws, such as the Basic Law of Food and Agriculture, the Law on Promoting Effective Use of Resources, the Law on Fertilizer Management (Revised), and the Law on Food Waste Recycling, to provide legal guarantee for the development of ecological and circular agriculture in Japan.

German agricultural law. Germany has issued the Seed Law, Fertilizer Use Law and Packaging Waste Treatment Law to regulate the cultivation of agricultural products and prevent and control agricultural pollution. The Agricultural Law and the Land Consolidation Law were formulated to adjust the standard use of agricultural land. The Agricultural Land Usual-Lease Transaction Law has been introduced to limit the use of agricultural land and ensure the amount of farmland. The perfect law has become a solid guarantee for the development of ecological circular agriculture in Germany.

#### **5.4. Finance Serves Modern Agriculture**

It is a common experience of developed countries to use financial means to promote the development of modern agriculture (Gao, 2020; Wei & Yang, 2008; Xian & Li, 2004).

The United States has set up a Farm Household Credit Administration under the Department of Agriculture, which offers low-interest loans with terms of up to 40 years to improve agricultural infrastructure. Insurance services for modern agriculture are provided through policy-based agricultural insurance institutions, while the government provides partial premium subsidies. The Farm Credit Corporation of the United States uses excess farm produce as collateral to make farm loans.

Japan issues loans with interest rates no higher than half of industrial loans through policy financial institutions for the development of agriculture, forestry and fishery. The government is responsible for interest discount for low-interest credit projects for the development of modern agriculture under compound policy conditions. In Japan, the government provides reinsurance to the Agricultural Ataxia Insurance Federation, a non-profit private organization that runs agricultural insurance. According to the livelihood significance of agricultural products, there are legal insurance and voluntary insurance.

Russia has adopted the mechanism of preferential loans for agricultural enterprises and continuously increased the state fund support for agriculture. The annual loan interest rate for agricultural enterprises is no more than 5%. Russia has established the National Union of Agricultural Insurance Companies to establish a joint agricultural insurance system. Insurance companies joining the alliance can sign agricultural insurance contracts that are supported by the state.

France's agri-finance institutions offer farm loans at less than half the interest rate of non-farm loans, with bank spreads subsidised by the state. France's agricultural insurance is organized

spontaneously by farmers, the government subsidizes more than half of the premiums paid by farmers, and each region has agricultural reinsurance institutions.

### **5.5. Agricultural and Rural Infrastructure Construction**

From the successful experience of foreign countries, the government plays a leading role in the infrastructure construction of agriculture and rural areas and assumes the responsibility of the main investor and organizer (Li, 2004; Zhang, 2015).

The Korean government, as an active participant in the New Rural Movement that began in 1970, invested a large amount of manpower, material resources and financial resources, and built a large number of rural infrastructures in the following decade. Through the construction of water supply facilities, the improvement of irrigation systems, the construction of rural roads and public facilities, it had greatly changed the rural landscape, improved the rural living environment, and significantly increased the income of farmers.

Japan provided farmers with low-interest loans, subsidies and subsidy projects to promote the construction of agricultural infrastructure, including farmland renovation, water conservancy facilities construction, purchase of agricultural machinery and other means of agricultural production. At the same time, Japan also attached great importance to rural public facilities, scientific research promotion, public health and other issues.

In the United States, large water conservancy and irrigation facilities are invested and constructed by governments at all levels, while small and medium-sized water conservancy and irrigation projects are given appropriate subsidies, and daily maintenance of water conservancy facilities is also subsidized. It has also invested a lot in the construction of transportation, water and electricity supply, sewage system, schools, public facilities and environmental protection facilities in rural areas, providing a good environment for the improvement of farmers' quality of life.

### **5.6. Agricultural Technology Innovation**

The problem of agricultural ecological environment is becoming increasingly prominent in China, and the innovation of agricultural technology with the purpose of protecting environment is a strong demand of people (Liu, 2020; Murzin, 2020; Sun & Wang, 2022; Zhong et al., 2021). The experience of environment-friendly agricultural technology innovation in developed countries is worth learning for China.

The United States introduced the new technology of electric power replacing chemical substances for weeding from Britain, developed ground penetrating radar and underground scanning technology to detect the underground growth of crops, and reduced the use of chemical fertilizers (Li, 2016). Subsidies will be given to farmers who adopt new technologies to promote the diffusion of agricultural technologies. The United States implements a certification and labelling system for environment-friendly agricultural products, which tracks and monitors the information of agricultural products in the whole process, so as to promote their promotion in the market.

Russia has applied digital technology to the whole agricultural industry chain. Through the use of robotic handling, 24-hour temperature and humidity monitoring, automatic watering and other new

technologies, the construction of the "smart greenhouse" breaks the cold climate limits, achieve year-round production, and achieve efficient management and scale planting. Agricultural businesses use digital technology to monitor climate change and plan field work effectively. The agricultural digital ecosystem has been established to attract suppliers in the fields of seeds, fertilizers, agricultural machinery and agricultural technology to enter the platform, and the industrial chain has been continuously improved in the digital form in the system (Yin, 2021).

Germany has developed and applied precision agriculture technology to accurately measure the number of pesticides and fertilizers used to prevent overuse. Most farms use intelligent computer control technology and farm database control technology, as well as intelligent sensing technology including temperature, humidity, wind speed, light and other environmental indicators.

South Korea has set up a special private appraisal organization to test and appraise agricultural products and improve social trust in organic agricultural products. Korea has implemented the "agricultural production record system" for environment-friendly agricultural products, in which information about all aspects of agricultural products is entered into computers in the form of bar codes so that consumers can check them at any time. Korea is also a world leader in agricultural innovations such as soilless cultivation, greenhouse technology that uses natural enemies to control pests, and soil improvement technology that reduces soil silicate content and improves soil fertility.

### **5.7. Cultivation of Professional Farmers**

Countries with developed agriculture have rich experience in the training of professional farmers, and the training modes of professional farmers in each country have their own characteristics (Yang, 2015).

The United States has a long history of vocational education in agriculture, with farmers receiving specialized distance or academic education. Secondary vocational farmer training is mainly carried out in public schools. There are three types of training methods. One is auxiliary vocational experience training, which mainly teaches skills related to production management and agricultural investment and financing. The second is the "Future American Farmer" training, which mainly focuses on improving farmers' entrepreneurial ability, leadership ability and teamwork ability. The third is to guide agricultural technology.

In Britain, the vocational farmer education system consists of a number of agricultural colleges, agricultural training centers, farm vocational and technical middle schools at different levels to meet the needs of different levels of personnel. There are various types of secondary vocational training schools for farmers, with flexible length of schooling, and formal education and part-time training complement each other.

France's farmer education and training system includes three parts: secondary agricultural vocational and technical education, higher agricultural education and farmer vocational training. Each training institution has its own different training objectives and training objects. Farmers must receive vocational education and obtain certificates of quality before they can enjoy state subsidies and preferential loans and be qualified to operate agriculture.

South Korea has formed the training mode of "agricultural association as the organization carrier, Agricultural Cooperative Colleges as the leader, and cultivation of professional farmers as the core", realizing a multi-level and multi-subject longitudinal training system, which plays an important role in the improvement of professional farmers' skills and effectively promotes the development of modern agricultural economy in South Korea.

Japan's education and training system attaches great importance to the improvement of professional farmers' skills, and has realized mutual integration in the theoretical research, practical training, technical training and academic education of professional farmers. The Japanese government has made overall planning and coordination for the training of professional farmers at the national level, and the agriculture department has cooperated with the education department and the social service department.

French professional farmers have a high status. In terms of training, they have formed an integrated mode of vocational and technical training and adult education, pay attention to the effectiveness, practicality and diversity of training content, and carry out certificate education and vocational skills training according to the special stage and specific field of agricultural development. The practice certificate is the passport for professional farmers in France to engage in agricultural production and agricultural products management. Only with the certificate can they enjoy the country's financial preferences, financial subsidies and tax policies for agriculture.

## **6. Results: Rural Revitalization Strategy in China**

### **6.1. Formulation of China's Rural Revitalization Strategy Plan**

To sort out and summarize the agricultural development experience of agricultural developed countries has certain reference significance for China, which is relatively backward in agricultural development. Although different countries have different natural and economic conditions and different paths and characteristics of agricultural modernization, which cannot be copied and applied, we can make full use of the achievements of the current world agricultural revolution, avoid the detours taken by developed countries in their early development, and formulate policies suitable for rural revitalization in China in light of China's national conditions. In line with the objective trend of China's economic development and the general law of agricultural development in the world today, we will take the road of agricultural modernization with Chinese characteristics.

The Strategic Plan for Rural Revitalization (2018-2022) was formulated against this backdrop. In September 2018, the CPC Central Committee and The State Council issued the Plan and issued a notice, requiring all regions and departments to earnestly implement it in light of actual conditions. The strategic plan for China's rural revitalization, which is according to the general requirements of prosperous industries, liveable ecology, civilized local customs, effective governance, and rich life, is an important basis for making phased plans, detailing and concretizing priorities and policies and measures, making major plans and actions, ensuring the implementation of the rural revitalization strategy, and guiding all regions and departments to promote rural revitalization in a classified and orderly manner.



## **6.2. Phased Progress in China's Rural Revitalization Strategy**

The data in this chapter are from China Statistical Yearbook (2021)<sup>1</sup> and Report on the Implementation of the Strategic Plan for Rural Revitalization (2020)<sup>2</sup>.

### **6.2.1. The top-level design has been strengthened, and the institutional framework and policy system have been basically formed**

Organizational leadership is further strengthened, and institutional supply is further strengthened. All 31 provinces have set up leadership mechanisms, stipulating that the chief of governments at all levels is responsible for rural revitalization. Rural primary-level Party organizations have been strengthened, with 59.5% of village party secretaries nationwide skilled in getting rich, and 21.9% with a college degree or above. All provinces formulate assessment methods and incorporate the assessment results into the comprehensive assessment system (Murzin & Yiru, 2021). Legal support for rural revitalization has been strengthened, and laws and regulations such as the Law of the People's Republic of China on Promoting Rural Revitalization, Regulations on The Prevention and Control of Crop Diseases and Insect Pests, and Measures for the Management of transfer of Rural Land Management Rights have been promulgated.

The guarantee of factors of production is further strengthened and rural reform deepen. The Organization Department of the CPC Central Committee and other departments designated over 20,000 teachers, 4,000 doctors, 20,000 scientific and technological personnel, and 1,000 social workers to train over 10,000 urgently needed local talents for rural revitalization. To ensure the demand for land for rural revitalization, 29 provincial-level provinces issued specific implementation measures for managing the use of agricultural land for facilities, specifying both positive incentives and negative constraints, and exploring new ways to supply land in light of actual conditions. In 2020, governments at all levels allocated 2.39 trillion yuan from their general public budgets for agriculture, forestry and water conservancy. By the end of 2020, the People's Bank of China had a balance of 38.95 trillion yuan in local and foreign currency-related loans to agriculture, up 10.7% from the previous year. Major achievements were made in the reform of the rural collective property rights system, which was completed in 530,000 villages, confirmed about 900 million collective members, and basically completed the confirmation, registration, and certification of collective property rights. Institutions and mechanisms for integrated urban and rural development continued to be built, and 11 national pilot zones for integrated urban and rural development were established.

### **6.2.2. Strong progress has been made in the implementation of the plan to help achieve the goal of building a moderately prosperous society in all respects as scheduled**

Support the fight against COVID-19, and highlight the role of agriculture, rural areas and farmers. First, effectively prevent and control the epidemic in rural areas. Special epidemic prevention and control teams have been set up in rural areas to improve the regular prevention and control mechanism and

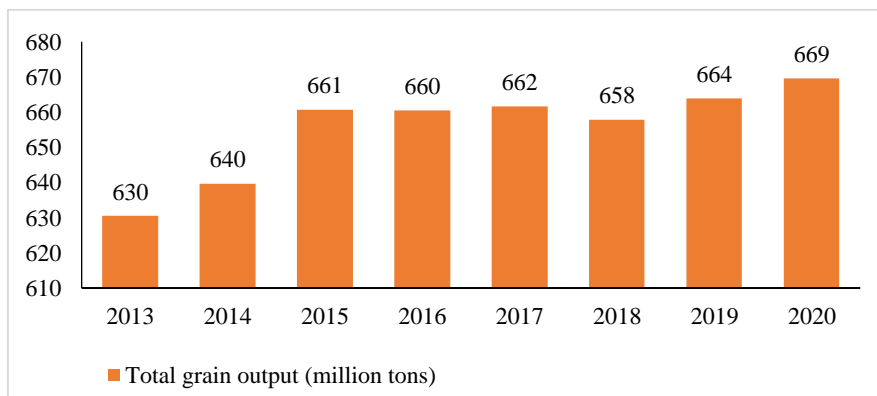
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<sup>1</sup> China statistical yearbook 2021. <http://www.stats.gov.cn/tjsj/ndsj/2021/indexch.htm>

<sup>2</sup> Report on the Implementation of the Strategic Plan for Rural Revitalization (2020). Office of Coordination and Promotion Mechanism for the Implementation of the Plan, China Agriculture Press, 2021.

encourage rural residents to adopt a healthy lifestyle of wearing masks and washing hands frequently. Second, do not miss the time of farming spring ploughing production. The Central government issued guidelines on spring ploughing production to guide local governments to restore order in agricultural production and organize agricultural machinery cooperatives to replace ploughing and planting; A mechanism was established to ensure emergency dispatch and supply of agricultural supplies for spring ploughing, and local governments were guided to strengthen organizational dispatch and supply coordination. Third, actively encourage agricultural enterprises to resume work and production. The state has extended special loans and discount interest support to key farming and other enterprises, providing more than 80 billion yuan in loans, and organized local financial institutions to grant credit of more than 180 billion yuan in small concessional loans to 89,000 micro, small and medium-sized agricultural enterprises. In combination with government subsidies, tax reductions and exemptions, and consumption subsidies, the state has accelerated the full recovery of development.

Grain and agriculture yielded another bumper harvest, and the supply of important agricultural products continued to increase. First, grain output hit a record high. The government pooled 4 billion yuan to support the resumption of double-cropping rice production in major early rice growing areas, raised the minimum purchase price for rice, and raised subsidies for corn producers, thus effectively encouraging farmers to grow grain. In 2020, the total grain sown area in China reached 1.752 billion acres, an increase of 0.6 percent year-on-year, and the total grain output reached 669.49 million tons, a record high. Second, the recovery of pig production was accelerated. The Ministry of Agriculture and Rural Affairs has divided the pig recovery target into provinces, focusing on supporting the development of large-scale breeding. The Central bank has arranged a special quota of 20 billion yuan for agricultural loans to support the expansion of pig breeding credit. By the end of 2020, the number of pigs and sows capable of breeding has recovered to 92.1% and 93.1% of that at the end of 2017 (figure 1).

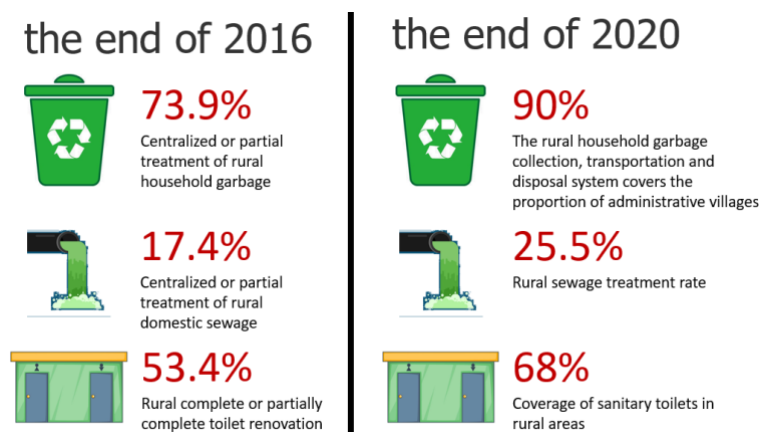


**Figure 1.** National grain output from 2013 to 2020

Positive progress was made in green agricultural development, and new types of agricultural businesses were nurtured and strengthened. First, material and equipment conditions continued to improve. In 2020, the overall mechanization rate of farming and harvesting will be increased by 1 percent, and 12 provinces carried out trials of unmanned farming on an area of over 80,000 hectares. Second, the capacity to support science and technology has significantly increased. 42 comprehensive key

laboratories, 335 specialized key laboratories, and 100 agricultural scientific observation and experiment stations have been built. The Ministry of Agriculture and Rural Affairs has invested 1 billion yuan in capital construction and supported 124 projects to upgrade the modern seed industry. Third, notable progress was made in green agricultural development. A total of 94 green air defence demonstration counties were set up, with the focus on promoting high efficiency and low toxicity biological pesticides. We established 356 key counties for comprehensive utilization of straw, and improved the recycling and utilization system of agricultural film, with the comprehensive utilization rate of straw exceeding 86% and the recovery rate of agricultural film exceeding 80%. Fourth, new industries and forms of business flourished in rural areas. We carried out high-quality projects for leisure agriculture and rural tourism, and introduced 246 beautiful leisure villages to the public. Leisure agriculture and rural tourism received 2.6 billion tourists last year. We carried out comprehensive demonstrations to expand e-commerce into rural areas, and supported an additional 235 counties. Online retail sales in rural areas reached 179 million yuan in 2020, up 8.9% year on year.

The campaign to improve the rural living environment was successfully concluded, and rural society remained harmonious and stable. First, upgrade rural infrastructure. We built or upgraded 269,000 kilometres of rural roads. We deployed 13,700 4G base stations, providing 4G access to over 99 percent of administrative villages across the country. 5.616 billion yuan in subsidies was used to build safe drinking water projects in rural areas. By the end of 2020, 83% of rural residents had access to tap water. Second, the three-year action targets for improving the rural living environment were basically met. The central government allocated 7.4 billion yuan to promote the rural toilet revolution and the development of a system for collecting, transporting and disposing rural household waste. The Ministry of Ecology and Environment promoted the treatment of domestic sewage in rural areas, with 34 counties carrying out trials of comprehensive treatment. We launched trials in 27 provinces and 154 counties to develop new types of rural housing. Third, promote the construction of "safe villages" (figure 2).



**Figure 2.** Comparison of rural living environment improvement

The Ministry of Public Security further improved the law and order prevention and control system, launched a special campaign to eradicate organized crime and evil, and intensified efforts to crack down on illegal religious and cult activities in rural areas. Further developed demonstration projects for the networked application of video surveillance for public security, and basically established a six-level

networked sharing system from the central government to villages. Fourth, increased the supply of cultural services in rural areas. By the end of 2020, 57.53 village-level comprehensive cultural service centers had been built across the country, covering 95 percent of the total population. The Ministry of Culture and Tourism supported about 80,000 cultural performances in towns and townships every year.

### **6.2.3. Practical exploration has been actively carried out, and the experience of promoting rural revitalization has been constantly enriched and developed**

Continue to give priority to the development of agriculture and rural areas. Beijing has established a sound mechanism for training, staffing, employing and managing cadres in towns and townships, studied and formulated an implementation plan for increasing the proportion of proceeds from land transfer used for rural revitalization, and implemented the requirements of giving priority to the allocation of factors of production, ensuring funding and arranging public services. Give priority to planning and take scientific guidance. Ningxia Hui Autonomous Region adheres to region-wide planning and overall layout, and has established a database of 13,300 investigation results on the status of natural villages, and simultaneously plans the layout of featured industries such as wolfberry, grape, tan sheep and rural tourism. Continue to give play to the principal role of farmers. In the process of improving the living environment in Guangdong Province, Party members and officials have taken the lead in demolishing their own illegal buildings and encouraging villagers to build a beautiful village featuring joint efforts, joint governance and shared benefits. Combine efficient government with efficient market. Hubei province, together with the Chinese Academy of Sciences, Wuhan University and other scientific research institutions, has created eight provincial scientific and technological innovation platforms, built public brands of Qianjiang lobster, driven farmers to develop the lobster industry, and effectively improved the quality, efficiency and competitiveness of Qianjiang lobster industry. Continue to promote rural vitalization in an orderly manner. Zhejiang province pays attention to the differences of villages and implements the "one county, one village, one theme" model. A large number of themed villages with their own characteristics have emerged, becoming a highlight of the demonstration province of rural revitalization.

## **7. Discussions: Prominent Difficulties and Suggestions on the Road to Rural Revitalization in China**

Rural vitalization is a systematic project and a long-term task. China has a large number of provinces, and their economic and management capabilities vary greatly. The problems faced in rural development are complex, and the implementation of the rural vitalization strategy will inevitably face some difficulties and problems.

### **7.1. Problems and Suggestions on Development Planning**

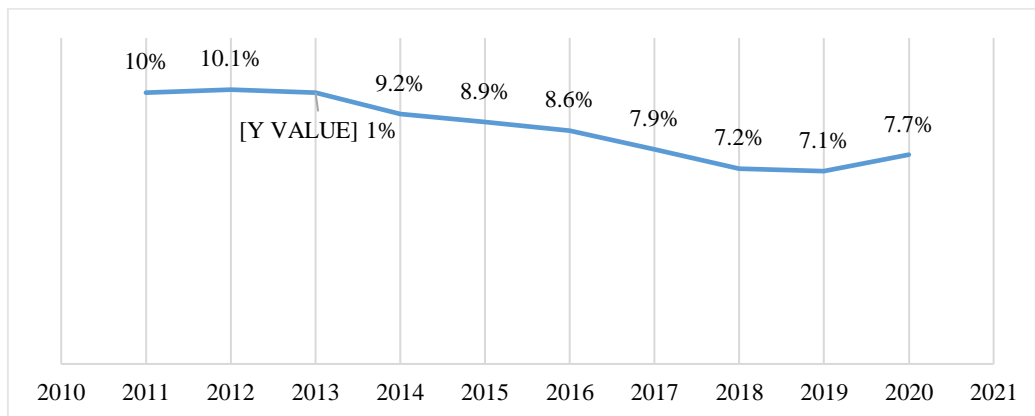
Local plans for rural revitalization and development have varying degrees of systematization, scientificity, operability and sustainability. The following phenomena exist: there are many professional planning but insufficient overall planning; City and county planning disjointed, organic integration is not

enough; General planning, not detailed to village groups, industries, projects, measures, divorced from the actual situation; Some plans are capricious.

It is suggested that rural plans be formulated at the county level in an overall way, and that plans for village groups be coordinated by towns and townships, so as to ensure that infrastructure and public services cover all rural areas. Adapt measures to local conditions in agricultural production, rural housing, and ecological and environmental protection. Under the framework of county-level overall planning, the planning is detailed to village groups, industries, projects and measures in combination with the actual conditions of industrial development environment, development potential, ecological status and rural labour force status of each village. And timely receive feedback; adjust the implementation rules of the plan.

## 7.2. Problems and Suggestions on Industrial Construction

The proportion of China's primary industry in the national economy has been at a low level for a long time. With the rapid development of China's economy, the proportion of the output value of the primary industry in the GDP has been on a declining trend and has been below 10% in the last decade (figure 3).



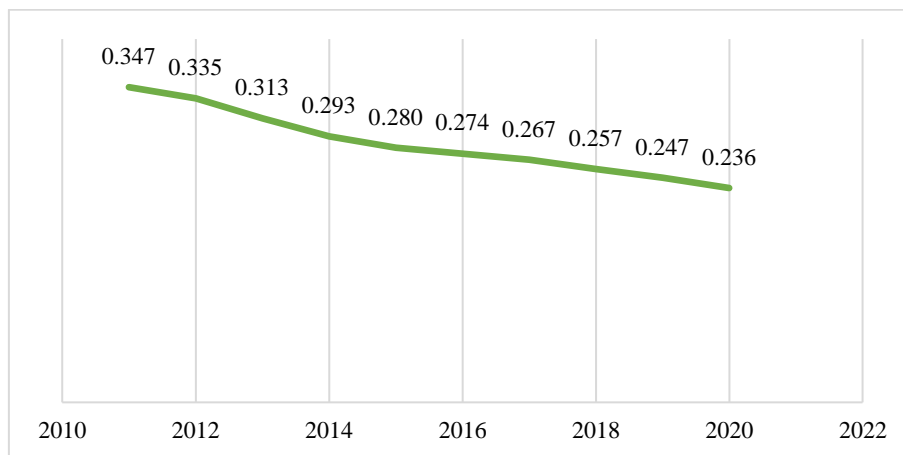
**Figure 3.** The proportion of the output value of the primary industry in the GDP from 2011 to 2020

There are many shortcomings in the industrial development of China's rural areas, whether it is to explore the potential of natural resources, or compared with advanced rural agriculture in developed countries. The traditional industrial foundation is weak, the arable land is small, and the infrastructure is incomplete. There is a great space for improving the quality of agricultural characteristic industries. Agricultural resources are rich but the level of in-depth development and utilization is limited. The products are of good quality but lack of market awareness and thus have a low market share. New rural industries started late, small scale and lack of experience, characteristic agricultural products processing industry is small scale, low grade, compared with a variety of delicate commodities in the market development seriously lag; Rural e-commerce and other new forms of business have just started, and lack the ability to drive their development. Modern rural service industry is still in the germination stage, the integration degree of primary, secondary and tertiary industries is not enough to support the agricultural and rural economy.

It is suggested that we increase investment in rural areas, and governments at all levels should shift the focus of investment in agriculture, rural areas and farmers to rural areas. We should ensure spending on rural infrastructure construction, increase investment in irrigation, pest control, rural roads, ecological restoration and other infrastructure related to agricultural production and transportation to improve the agricultural production environment (Lazareva et al., 2020). To develop the rural collective economy and leave all the land transfer fees in rural areas to support the development of rural industries; Integrate science and technology, finance, market and other resources, provide policy support in industrial planning, information supply and other aspects, so as to attract more private capital into the development of primary industry.

### 7.3. Problems and Suggestions on Human Resources

With the gradual acceleration of urbanization, rural labour force flows to cities on a large scale, resulting in the hollowing out and the aging of rural areas are aggravating, the quality of labour force continues to decline. The proportion of primary industry employment in the total labour force has been on a downward trend. New agricultural operation subjects are still in the initial stage of development, and agricultural technical personnel, elite personnel and managerial personnel are generally lacking. The existing rural human resources are completely insufficient to support the realization of rural revitalization, and the lack of rural human resources has become a prominent bottleneck restricting rural revitalization (Anopchenko et al., 2020; figure 4).



**Figure 4.** Proportion of employed population in primary industry from 2011 to 2020

It is suggested that while strengthening the construction of rural infrastructure and public goods and services, the grassroots government should vigorously implement the rural talent cultivation project: First, select and train the village party secretary, a good village party secretary can drive the people to get rich. In the selection of village party secretaries, attention should be paid to their ability to work at the grass-roots level as well as their sense of belonging to the countryside, so that they can truly become the leader of rural revitalization. Second, foster a new type of professional farmers. Farmers will be recognized as a profession, formulate supporting policies to support professional farmers, and encourage more farmers to improve their quality in agriculture. Third, foster new types of agricultural business

entities. Increase policy support for family farms, specialized farmer cooperatives, and leading enterprises in the industrialization of agriculture, and encourage them to better play their exemplary and leading role. Fourth, attract capital to flow into the countryside. Formulate, introduce and implement specific policies to support urban, nongovernmental and overseas capital in setting up factories in rural areas, develop agricultural industries, attract migrant workers to return to their hometowns for employment or entrepreneurship, break institutional barriers to the flow of urban and rural personnel, and speed up the flow of human factors of production. Fifth, intensify the training of practical rural personnel. Select personnel from the existing rural labour force for skill training by stages and in batches to accelerate the construction of local professional personnel in rural areas.

## 8. Conclusion and Suggestions on Mechanism Innovation

Since the implementation of the Rural vitalization Plan, China has been exploring new mechanisms for agricultural and rural development, but there are still many bottlenecks. First, they dare not innovate. Township leaders in response to the call of the superior, easy to copy policies and methods and not combined with the actual flexible changes, especially in the context of strengthening the pursuit of responsibility, not open hands and feet, dare not try. The second is a reluctance to innovate. Some relatively backward villages lack confidence in development and are unwilling to invest capital and energy that are not rich. Third, they are not good at innovation. Rural cadres are generally long-lived villagers who are seriously out of touch with the rapidly developing economy and society in terms of development concept and innovative thinking and can't keep up with the pace of modern society.

Mechanism innovation should be carried out on the premise of emancipating the mind and renewing the concept. First, make innovations in the rural management system. With the development of era, a decentralized management mode has been difficult to adapt to the new situation, should take advantage of land circulation, actively explore diversifications, guide enterprises to take the "company + peasant household", "company + cooperative + peasant household" mode, develop moderate scale management of agriculture, realize the effective allocation of land, capital, technology, labor and other factors of production. Second, establish a linkage mechanism between rural revitalization and new urbanization, encourage the flow of capital, technology, and human resources in cities to rural areas, promote the extension of urban infrastructure and public services to rural areas, and give full play to the driving and radiating role of cities in rural areas.

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