

Research on the coordinated development of regional scientific and technological innovation, economic development and ecological environment

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Keywords: coordinated development; technological innovation; economic development; ecological environment

Abstract: Scientific and technological innovation, economic development and ecological environment construction, as an important part of the national governance system, plays an important role in promoting the national economic and social development of China. While developing economy, people attach importance to the development of ecological environment, and pay more attention to the application of scientific and technological innovation in ecological friendly economy. Ecological friendly is the pursuit of harmony between human and nature, and the coordinated development of environmental protection and economic development. Scientific and technological innovation also ecological friendliness meets the overall requirements of China's current sustainable development and are the ideological basis of economic development.

The 13th five year plan of China's national economic and social development puts forward five development concepts of "innovation, coordination, green, openness and sharing". Among them, the concept of innovation and development emphasizes that innovation must be placed at the core of the overall national development, such as scientific and technological innovation, theoretical innovation and institutional innovation. The concept of coordinated development emphasizes the need to constantly enhance the coordination and integrity of development. while the concept of green development emphasizes the need to speed up the construction of a resource-saving and environment-friendly society to make new contributions to global ecological security. The concept of innovative development, coordinated development and green development, the formulation of strategic guidelines and the implementation of relevant policies and measures could fully reflect the importance of coordinated development among scientific and technological innovation, economic development and ecological environment construction.

1. Current situations of the three

1.1 Current situations of scientific and technological innovation

In 2010, China's R & D investment intensity has risen to 1.71%, which is about two times higher than that in 2000. In 2014, China's R & D investment intensity exceeded 2% for the first time, higher than the average investment intensity of 1.92% in eu-28 countries. China has become the second largest R & D provider in the world.

From the perspective of the change of invention patent ownership, since entering the 21st century, the number of invention patent applications accepted and authorized in China has maintained a rapid growth.

1.2 Current situations of economic development

Since the reform and opening up, China's economy has achieved leapfrog development. Since the beginning of the 21st century, China has successively implemented the 10th, the 11th and the

12th Five Year Plan. From the change of economic development evaluation indicators, China's economy has maintained rapid growth. The average annual growth rate of GDP in 2000-2005, 2005-2010 and 2010-2015 has reached 9.6%, 11.2% and 8% respectively. At the same time, from the perspective of industrial structure changes, China's service industry added value accounted for more than 40% of GDP for the first time in 2008, and exceeded 50% in 2015, achieving the expected goal (47%) of the 12th Five Year Plan.

1.3 Current situations of ecological environment construction

With the rapid development of China's economy and the acceleration of industrialization process, China's total amount of resources is excessively consumed, the ecological environment is seriously polluted, and the ecological deficit continues to expand. Since the beginning of the 21st century, while the economy has maintained steady and rapid growth, the ecological deficit has begun to shrink. From the perspective of water resources utilization, the efficiency of water resources utilization has been continuously improved.

In addition, since the beginning of the 21st century, the emission of major pollutants has made important progress, except for the trend of increasing carbon dioxide emissions. The main reason is that the economic development mode of high consumption and carbon intensity emission has not fundamentally changed. During the period from the 10th to the 12th Five Year Plan, although the carbon dioxide emission is in the stage of rapid growth, the annual growth rate has decreased from 8.6% to 7.5%.

2. Suggestions on the coordinated development of scientific and technological innovation, economic development and ecological environment

2.1 The guiding role of the government in the coordinated development of the three

The coordinated development of ecological environment protection and economic development requires sustainable utilization of resources. And the utilization of resources should not exceed the development speed of alternative resources. Also the amount of pollution emission should not exceed the nature of self purification system, so resources must be used scientifically and reasonably. Scientific and technological innovation and friendly ecological environment could meet the overall requirements of China's current sustainable development. Government departments at all levels should play a functional role in promoting and advocating the concept of environmental friendly technology (green technology) innovation, environmental factors and the whole production process to guide consumers to pay attention to green products. Through the government green procurement, it has a positive impact on the behavior of enterprises and public consumers. Government procurement should give priority to the procurement of products with ecological design. In the process of using, it should maintain economy and multi recycling, and form a virtuous cycle system of green consumption, guiding scientific and technological innovation, and promoting green consumption.

2.2 Giving full play to the government's regulatory role in economic activities

We should give full play to the industrial environmental benefits brought by economy, society and science and technology to the country and integrate the backward traditional industries.

2.2.1 Increasing investment in scientific and technological innovation research of environment-friendly industries

The government should guide and plan the innovation of environment-friendly technology and bring it into the overall national development strategy. And the government should also do a good job in the examination and approval of related projects and personnel allocation, set up technology transfer and promotion trading center and establish environment-friendly industry technology resource information network for easy communication.

2.2.2 Improving the incentive and guarantee mechanism of environmental friendly scientific and technological innovation

Talent is the key to innovation, and the incentive mechanism of innovative talents is particularly important. The establishment of financing mechanism and venture capital system is to guarantee the external environment of scientific and technological innovation. Only by providing sufficient personnel and funds can environmental friendly technological innovation develop better. The government should adjust the policy according to the different periods of industrial development, considering the cost and benefit, so as to encourage the technology with development prospect to play a role. Through policies, the government plans the combination of various administrative tools such as taxation, preferential treatment and expansion, so as to strengthen the application of environmentally friendly innovative products in government procurement, and pay special attention to the role of policy coordination among various departments.

2.2.3 Applying laws and economic policies to exert pressure on enterprises to develop scientific and technological innovation

Market prices accurately reflect the economic activities of environmental costs. In the case of changing the free use of natural resources and the environmental costs in the past, companies are forced to improve the economic benefits of the process, save energy and reduce consumption, reduce environmental costs, also develop and promote green technology innovation.

3. Conclusion

In a word, with the continuous change and development of science and technology, its industry will become the leading force of social and economic development. And the ability of innovation has always been the top priority of China's efforts. At any time, increasing investment in science and technology is a powerful weapon for a country, for it is the first productive force. We should increase investment in it and enhance China's innovation and entrepreneurship ability. In order to get rid of the dependence of foreign advanced technology, we should also strengthen independent research and development and protect intellectual property rights.

On the other hand, economic growth always starts with technological innovation, and the development of environment-friendly economy is also the first to develop scientific and technological innovation. Through the innovation, the industrial structure will be continuously optimized and upgraded, the substitution of intellectual resources for environmental material resources and the intellectual and ecological transformation of economic activities will be realized. New industrial enterprises with high scientific and technological content, good economic benefits, low resource consumption, low environmental pollution and human resources can be cultivated and developed, so as to promote sustainable economic growth.

Also scientific and technological innovation plays an important role in economic development. In order to ensure the development of economy, we should give full play to the regulatory role of the government in economic development activities, advocate the environment-friendly economic model and lifestyle, strengthen the investment and research and development of environmental friendly scientific and technological innovation, and improve the incentive and guarantee mechanism of scientific and technological innovation. With the goal of ecologicalization, intellectualization and sustainability, we should transform the existing unsustainable economic model with serious resource consumption and environmental pollution, establish and improve the ecological economic development system, and promote the ecologicalization of science and technology, the ecology of productivity, and the ecology of the national economic system.

Acknowledgments

Major theoretical and practical projects in the field of social science in Shaanxi Province of 2020, "on the legal guarantee of coordinated Law Enforcement in Shaanxi Section of Weihe River from the Perspective of Integrated Watershed Management"(20FX-27)

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