Research on the Transformation and Upgrading of China's Recycling Resources Industry

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Abstract. Socialism with Chinese characteristics has entered a new era, and the economy is in a critical period of transformation and upgrading. The renewable resources industry has been given new missions and requirements. The renewable resource industry is a fundamental change to the extensive development model of “mass production, mass consumption, and mass abandonment” in China, and is also the basic way to conserve resources and protect the environment. This paper explores the new situation and existing problems in the development of renewable resources industry, and proposes the path of transformation and upgrading of renewable resources industry. This provides a strong support and reference for the formulation of renewable resource industry planning and development strategies.

1. Introduction
Since the industrial period, the global economy has experienced explosive growth, but serious waste of resources and environmental pollution have brought us a heavy price. Under this pressure, European countries such as Germany and France took the lead in proposing a circular economy development strategy. Later, this strategy received positive responses from countries around the world, and the renewable resource industry attracted the attention of governments and scholars [1]. China's renewable resource industry started late, and there is still a big gap between the industrial scale and market maturity compared with developed countries such as the US, Japan and Europe. However, with the shortage of resources and the deterioration of the environment, people have gradually recognized the idea that “garbage is a misplaced resource” [2-3]. The Chinese government has also released a series of policies and documents, which have played a positive role in promoting the recycling and utilization of renewable resources.

As a sunrise industry, the renewable resources industry has outstanding value in the construction of China's environmentally-friendly and resource-friendly society, and is the necessary way to alleviate the contradiction of China's resource shortage. Socialism with Chinese characteristics has entered a new era, and it has proposed higher demands on the development and utilization of natural resources, and has also given new tasks and missions to the renewable resources industry. In the face of high-quality living needs of the people, high-quality economic development and high-quality ecological health, China's renewable resources industry needs new enlightenment, new liabilities and new responsibilities.

2. The new situation of the renewable resources industry

2.1 Good development environment
How to transform the economic growth mode, develop the renewable resource industry, and promote the healthy development of the circular economy has become an important issue for the central government and governments at all levels. The comprehensive deployment of ecological civilization construction by the 19th National Congress has created new opportunities and challenges for the new era of renewable resources industry. The policies and environment of the government's support for the development of renewable resources industry are gradually taking shape, and the overall form of the renewable resource industry is improving. Under the guidance of a series of policies such as the National 13th Five-Year National Strategic Emerging Industry Development Plan and the Strategic Emerging Industry Key Products and Services Guidance Catalogue, China's renewable resources industry will usher in a good development environment.

2.2 The number and variety of waste products are increasing
With the continuous advancement of urbanization and industrialization, people's living standards have gradually increased, and consumption levels have continued to grow. At the same time, a large amount of waste has been brought, most of them are renewable resources. If they can't be used reasonably, they will not only waste resources, but also cause serious pollution to the environment. In addition, the types of renewable resources are constantly being refurbished, from old materials such as waste paper and rags to high-value waste such as scrapped automobiles and electronic products. As the saying goes, "Get resources, get the world", so the renewable resources industry will have broad prospects, which is also an important manifestation of China's construction of environmentally-friendly and resource-friendly society in the new era.

2.3 Continuous innovation in waste utilization methods
At the beginning of liberation, repairing old waste was the main way to reuse waste materials, and the way to recycle waste was relatively simple. However, as the production technology and technological level of the products continue to increase, the recycling methods of waste materials have become diversified. Waste recycling can not only replace the vulnerable parts, but also enhance the function of the products through technical means. Even if the waste plastics are recycled, there are many uses such as granulation, drawing, wood-plastic board. The continuous innovation of waste utilization methods has greatly improved the utilization efficiency of renewable resources and provided a powerful driving force for the development of renewable resources industry.

3. Analysis of problems in the development of renewable resources industry

3.1 Policy and law are not sound
At present, China's laws on the development of renewable resources industries mainly include the "Environmental Protection Law" and the "Circular Economy Law". Compared with the actual needs of the development of the renewable resources industry, these laws have lags in some articles. To a certain extent, it has affected the standardized development of the renewable resources industry. In addition, the local government failed to provide strategic support from a strategic perspective, such as simplifying the approval process in the project approval process and giving necessary relief in the fiscal taxation. China's laws and policies on the development of renewable resources industries need to be further improved.

3.2 Technical means are relatively backward
The renewable resource industry includes the process of collection, transaction and regeneration. These processes require a large amount of human and material resources to participate, and are typical labor-intensive industries[4]. However, waste materials have the characteristics of complex composition and various types. How to transform the remanufacturing process from relying on manual labor to relying on advanced technology and equipment is one of the important bottlenecks in the development of renewable resources industry. At present, some basic technologies, common
technologies and key technologies in China are relatively low, lagging behind developed countries such as the United States and Japan. In addition, China's technology research and development system is still not mature, and it is unable to build a sound system of technology research and development, promotion and application according to the strategic needs of the development of renewable resources industry.

3.3 Low recovery rate of renewable resources
Renewable resources are distributed in all corners of society and have strong dispersion. Due to the small amount of individuals, the small value, and the low degree of attention, the recovery rate of renewable resources in China is relatively low. In addition, a considerable part of them are mixed in the garbage and cannot be effectively recovered, which seriously affects the economic value of the renewable resource industry. If this state is not changed, the sustainable development of the renewable resources industry will be greatly hindered, and even related enterprises will have a situation of “No rice under the pot”.

3.4 Recycling staff is gradually decreasing
The recycling system is the top priority of the development of circular economy, but the recycling staff is gradually decreasing. Although the amount of waste continues to increase, if there is no labor to recycle, waste is thrown everywhere is waste, not renewable resources. On the whole, the reasons for the reduction of recycling personnel are as follows: disagreement with the recycling work, think the work is dirty and chaotic; "Internet +” recycling for the replacement of recycling personnel[5]; Some local governments have expelled small enterprises in the renewable resource industry.

4. Path Analysis of Transformation and Upgrading of Recycling Resources Industry

4.1 Strengthen top-level design and improve related policies
The external environment has an important impact on the development of China's renewable resources industry. Therefore, in the process of the development of renewable resources industry, it is necessary to strengthen the top-level design and improve relevant policies. First, the government should establish and improve laws and regulations to build a good legal guarantee for the development of the renewable resources industry. In addition, as one of the emerging industries, the renewable resource industry has many immature places in the aspects of market access, operation and development. The government needs to define its development orientation from the perspective of policy formulation. In particular, we must do a good job in the scientific planning of the industrial layout, industrial structure and industrial chain of the renewable resource industry, so that the development of the renewable resource industry reflects the requirements of the green development concept.

4.2 Strengthen market improvement system
As a global emerging industry, the renewable resource industry has broad prospects for development. However, the disorderly disorder of the trading market has seriously hindered the sustainable development of China's renewable resources industry. Therefore, in the development of the renewable resources industry, we must adhere to the improvement of the market mechanism. First of all, each region should build a renewable resource market trading system based on the development status of the renewable resource industry, so as to highlight the professionalism and comprehensiveness of the market system. Second, the government needs to strengthen the management system of the renewable resources industry, set up corresponding management and coordination institutions, including public security, industry and commerce, health, environmental protection and other departments. And unified to deploy management tasks, division of labor to assume the manage content.
4.3 Break through key technologies and achieve technology upgrades

Xiao Xiangbin and Zhang Song believed that technological innovation and application were important driving forces for the development of renewable resources industry[6]. China's renewable resources industry is still at a preliminary stage, and the overall technical level is low, so technology research and development is particularly important. In this regard, our country should increase capital investment in renewable resource industries, establish and improve the regulatory mechanism for investment in scientific and technological innovation, and build a technological innovation system for renewable resource industries. The competent departments at all levels of government should assist leading enterprises in the region to apply for scientific research projects in the country's renewable resources, make full use of special funds for scientific research, and break through key core technologies to promote the development of the industry.

4.4 Strengthen the construction of the talent team and promote exchanges with advanced enterprises

The renewable resource industry is a labor-intensive industry that requires talents to support it. Therefore, the sustainable development of the renewable resources industry must have high-quality and highly skilled personnel. First of all, China should strengthen the alliance between enterprises, research institutes and universities to promote the exchange and sharing of technology, so as to accelerate the formation of a group of high-level, high-quality, high-skilled talents. Secondly, relevant organizations should pay attention to cooperation with advanced enterprises at home and abroad, and through field visits, exchanges and learning, continue to broaden horizons and bridge the gap between technology research and development of the renewable resources industry.

5. Summary

As a key industry to alleviate China's resource shortage and protect the ecological environment, the renewable resources industry has a significant positive impact on economic and social benefits, and has a positive impact on China's future economic development. Through analysis, it is found that China's renewable resources industry is facing both development opportunities and challenges in the new era. How to achieve a low-carbon and green transformation of the renewable resource industry, how to achieve a win-win situation for environmental protection and economic benefits, it requires the government, industry, enterprises and other aspects to deal with.

The government should speed up the formulation of the long-term planning and phase objectives of China's renewable resource industry development, and improve relevant laws and regulations to provide a good external environment and policy support for the development of renewable resources industry. As the main body of transformation and upgrading, enterprises should fully realize that the circular economy has become a global development trend. Faced with this situation, enterprises should seize the opportunity, advance the layout, and continuously improve the technology research and development capabilities, thereby enhancing the competitiveness of enterprises.

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