On the Circular Economy Strategy of Sustainable Development

Yongming Pan¹, a, Ying Guo², b

¹Tianjin University of Technology, Tianjin, China
²Tianjin University of Technology, Tianjin, China

a961493805@qq.com, b1224451074@qq.com

Keywords: circular economy; sustainable development

Abstract: The circular economy is a product of reflection on the long-term harm to nature's development activities leading to the natural resources and ecological environment approaching their limits. The sustainable development strategy is the realistic choice of China's development path, and the circular economy is the ecological economic development model of resources, products and renewable resources. This paper studies the scientific connotation of circular economy. By analyzing the relationship between society, resources and environment, it explores the internal relationship between circular economy and sustainable development, and proposes that the development of circular economy is an effective way to implement sustainable development strategy, and proposes to develop circular economy. Countermeasures and suggestions to effectively play the role of circular economy in the development of the national economy.

1. Introduction

The circular economy is a product of long-term, large-scale, high-intensity and high-intensity development activities of modern human society that lead to natural resources and ecological environment approaching its tolerance limit. In order to seek the development of human society and the sustainability and "win-win" of nature's life, it is necessary to establish a high-ecological economic system, that is, a green economy system, that can preserve and increase the value of natural capital on which human beings depend. The main pillar of a new economic system. In the process of world-renowned development and change, China is facing unprecedented multiple crises: ① The population continues to expand and age rapidly, and the employment burden is heavy; ② resources are increasingly tight, close to the resource carrying limit; ③ The rapid spread of environmental pollution and the deterioration of natural ecology.

2. Sustainable development is the inevitable choice for China's development path

In order to solve the problem of food and clothing and achieve the strategic goal of a comprehensive well-off society, the economy must develop and the environment must be protected. Protecting the environment is actually the basis for protecting human survival and development. Lessons from many developed countries have proven that development at the expense of the environment will not last long. Based on the current national conditions, we should choose a development mode that is economic, social, resource and environmentally coordinated, which meets the needs of contemporary people and does not constitute a harm to the ability of future generations to meet their own needs – sustainable development strategy.

The core of sustainable development is the coordination of human activities and the environment. This kind of development combines the immediate interests with the long-term interests, local interests and overall interests, and requires the development and use of the process of vigorously promoting economic growth. Minimize pollution and environmentally friendly raw materials, intermediate products, production techniques and processes, and explore and utilize opportunities to use resources in a sustainable and effective manner.
3. Circular economy is the basis for the harmonious development between man and nature

The development model under the guidance of traditional development ideas and theories is a single linear open model of “resources-products-polluting emissions”. The development of such high consumption, high output and high waste does not consider environmental factors. It emphasizes the conquest of the environment and the lack of awareness of environmental protection. The waste of resources and shortages lead to serious deterioration of the ecological environment, resulting in serious product distribution Polarization. In the 1980s, environmental theory experts proposed the concept of circular economy, mainly referring to the use of feedback methods to recycle limited resources, improve the efficiency of resource utilization, reduce the damage caused by pollution, to clean production, resource conservation, green Eco-economic development characterized by consumption, waste recycling and environmental protection.

It is required to organize economic activities into a process of “resource-product-renewable resources” in a cyclical flow according to the pattern of natural ecosystems. The circular economy uses resources in an economical way; it produces and consumes in an environmentally friendly manner, achieving the greatest possible economic and social benefits with as little resource consumption and environmental costs as possible. The “3R” principle is the most important practical principle of the circular economy.

4. Developing Circular Economy is an Effective Way for China to Implement Sustainable Development Strategy

China has a large population, few resources, and a fragile ecological environment. The per capital resources are much lower than the world average. China Environment and Development. The contradiction of the exhibition has been very prominent. The total amount of pollutants discharged has significantly exceeded the environmental capacity. It must be strictly controlled and implemented. Harmful treatment reduces the negative impact of economic and social activities on the environment. The development of circular economy is a strategic choice to reduce resource consumption as a whole, solve resource contradictions, and effectively control pollution. At the same time, it is an important measure to reduce production costs, improve economic efficiency, and enhance enterprise competitiveness. The circular economy ecosystem concept introduces the economic operation mechanism and infiltrates environmental protection into the whole process of economic activities. The initial stage of development focuses on protecting the ecology, making sustainable development possible.

5. The main obstacles in the development of circular economy

5.1 Lack of an effective mode of operation for the development of circular economy

The development of circular economy must rely on market mechanisms to have vitality. It is necessary to take the road of combining government, enterprises and market to form an effective model for the development of circular economy: First of all, how to break through the cost barriers and make the circular economy work effectively. It must be noted that many of the links in the circular economy production mode that are intended to achieve reduction and circulation are not inevitable choices under the current market economy conditions. In addition. The waste and sewage charges paid by enterprises and mass consumers are not only far lower than the compensation fees for pollution damage, but even significantly lower than the pollution control costs, and it is difficult to play the role of pollution prevention and control. The circular economy is a complex system project that requires the joint efforts of various localities, enterprises, and consumers. At present, the external dynamics and internal benefit sharing mechanisms that promote the development of circular economy are not generally formed, and there is no effective mode of operation for the development of circular economy.
5.2 The policy system for promoting the development of circular economy is imperfect

The current policy restricts the development of circular economy in some aspects, mainly in the following aspects: First, there is no effective incentive policy to promote the development of circular economy. Second, China's fiscal and taxation policies are not perfect. Although China's fuel tax reform program has matured, the relevant government departments have alleged that they will announce the opportunity to be implemented nationwide, but they have not yet been promulgated for various reasons. The delay in fuel tax cannot be levied, which is not conducive to the conservation of oil, but also restricts the development of circular economy.

5.3 The legal and regulatory system that has not yet established and improved the development of circular economy

Many countries in the world have adopted legislation to force the development of circular economy. For example, Japan, Germany, Italy, South Korea and other countries have formulated comprehensive or individual laws for the development of circular economy and resource recycling. At present, China has not yet established a sound legal and regulatory system that is conducive to promoting the development of circular economy. China's main circular economy law is the Clean Production Promotion Law, which does not specifically clarify the responsibilities and obligations of enterprises, and its operability is not strong. The State's "Energy Conservation Law", "Environmental Impact Assessment Law", "Renewable Energy Law" and other series of laws and regulations have put forward the requirements for the development of circular economy, but they are not systematic. The current laws and regulations on environmental protection are focused on pollution prevention and control and end-of-pipe treatment, and cannot meet the requirements of developing circular economy.

5.4 The price formation mechanism of resource products is not sound

At present, China's price formation mechanism reflecting the scarcity of resources and the relationship between supply and demand is still not perfect, resulting in unreasonable prices of resource products. Many resource product prices do not reflect resource and environmental costs, and there is a phenomenon of resource shortage and waste coexist. A fundamental way to alleviate the pressure of resource constraints is to improve the price formation mechanism of resource products and let prices really work.

5.5 The technical support system of circular economy needs to be strengthened

At present, China has made some breakthroughs in certain technologies to improve the efficiency of resource utilization. However, on the whole, the research and application of circular economy science and technology are obviously lagging behind. There is a lack of commonality and key technologies to support the development of circular economy. Many enterprises, especially small and medium-sized enterprises, have weak technical strength and lack platforms and channels for understanding relevant technical information. Strengthening the technical support system is very important for the development of circular economy.

6. Effective countermeasures must be taken to develop circular economy

6.1 Guide all departments and regions to develop a circular economy in a manner consistent with the laws of the market economy.

The circular economy and the basic economic theory are in the same line. To develop a circular economy, we must also comply with basic market economy rules. Government departments should guide and coordinate, and if necessary, should introduce preferential policies or appropriate subsidies.
6.2 Improve the policy system for promoting the development of circular economy, and rationalize the operational mechanism of circular economy

We should give full play to the leading role of market mechanisms in promoting the development of circular economy. At the same time, we should optimize the links between the various nodes of the circular economy by means of economic policies such as finance and taxation, so that the various subjects in the circular economy can form complementary interactions and symbiotic relations. Reduce the operating cost of the circular economy, rationalize the operating mechanism of the circular economy, and realize the dynamic stability and long-term development of the circular economy.

6.3 Build a good technical support and technical advisory service system to make technological progress play a greater role in the development of circular economy.

To achieve the economic and environmental goals pursued by the circular economy, we must rely on technological progress. To break through the traditional development model and make technological progress play a greater role in the development of circular economy, we must increase investment in research and development of circular economy commonality and key technologies under the support and guidance of the government, and build good technical support and technical consultation. Service system, promote the application of advanced and applicable technologies, timely release information on circular economy technology, management and policies to the society, carry out information consultation, technology promotion, publicity and training, etc., and provide technical services for enterprises involved in circular economy, especially small and medium-sized enterprises. Multi-channel financing should be carried out to promote social capital investment in the research and development of circular economy commonality and key technologies.

6.4 Strengthening the construction of the legal system, establishing and improving the legal and regulatory system for promoting the development of circular economy

First of all, the state should pay close attention to the development of a series of special regulations and systems, increase the intensity of law enforcement supervision and inspection, and integrate the development of circular economy into the legalization track. Second, strengthen the government's macro-control and guide the development of circular economy through policies. In the direction of investment policies and project selection, the direction of industrial restructuring and upgrading, through the environmentally friendly publicity and education, to guide the public to consume green products, to stimulate the development of circular economy. Finally, vigorously promote the circular economy in the strategic adjustment of the economic structure. In the adjustment of industrial economic structure, we must aim at improving the efficiency of resource utilization, reduce the intensity of pollutant discharge, optimize the industrial structure, vigorously develop ecological agriculture and organic agriculture, establish organic food and green food bases, and significantly reduce the application rate of pesticides and fertilizers.

7. Conclusion

The development of circular economy is the essential requirement for implementing and implementing the scientific development concept. To adhere to the scientific development concept, we must deal with the sustainable relationship between environmental protection and economic growth in accordance with the requirements of the "five overall planning" and adjust the social economy. The unbalanced material exchange relationship between activities and ecosystems follows the path of sustainable development of circular economy.

References

