



Recycling Economy and Ecological Economy

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Abstract

Recycling economy is a kind of economy that melts clean production and the comprehensive utilization of waste. Its nature is a kind of ecological economy. Ecological economy is a kind of economy of sustainable development. It emphasizes the co-adaptation and mutual promoting and coordination of recycling economy and ecological economy. By analyzing the difference and relation of recycling economy and ecological economy, the article points out that it is necessary to develop recycling economy in order to realize ecological economy.

Keywords: Recycling economy, Ecological economy, Sustainable development

Recycling economy is a kind of economy that melts clean production and the comprehensive utilization of waste. Its nature is a kind of ecological economy. The law of ecology is required to guide the economic activity in human society. It follows the 3R principle of minimization, reuse and recycling. Ecological economy is a kind of economy of sustainable development. It can not only meet the needs of contemporary people, but also meet the needs of future generations and is not a crisis for them. It emphasizes the co-adaptation and mutual promoting and coordination of recycling economy and ecological economy. Recycling economy and ecological economy have both difference and relation.

1. The distinction of recycling economy and ecological economy

1.1 *Recycling economy is the basis of realizing ecological economy*

The nature of ecological economy is to develop the economy on the sustainable basis of ecological environment and to expand the reproduction of economy in the premise of reproduction of nature in order to achieve the "win-win" situation of economic development and ecological protection and establish the compound ecosystem of the virtuous circle of economy, society and nature. Eco-economy includes ecological agriculture, ecological industry, ecological tourism and so on. Recycling economy is a mode of economic operation in which material and energy flow in accordance with the natural ecosystem. It guides the economic activity in human society with the law of ecology. The repeatedly cycle of material of "resources - products - renewable resources" is formed in the process of production and consumption in order to achieve the result of "low production, high-use, low-emission". Recycling economy is a basic requirement for ecological economy and one of the models of implementation of ecological economy. For example, the implementation modes of ecological agriculture include ecological large-scale pattern, ecological renovating mode, ecological improving mode, ecological farming mode, ecological cultivation mode, recycling economy mode as well as ecological economic mode of courtyard. Recycling economy is a mode of economic development which can maximize the use of resources and protect the environment. Its purpose is to minimize resource consumption and waste emissions mainly through the technological transformation of traditional industries so as to eliminate radically the acute conflict between Environment and Development for a long time.

1.2 *Ecological economy is the upgrading of recycling economy*

At the macro level, ecological economy emphasizes the symbiotic harmony of economic system and natural ecosystem, emphasizes to pay equal attention to the use of zoology and ecological construction, and demands for the restoring and strengthening construction of ecological environment, in order to keep and increase the stock of the favorable ecological environment and maintain and upgrade the carrying capacity of ecological environment. While the essence of recycling economy is the eco-turn of economic development, recycling economy is a specific mode of implementing ecological economy. The relation of ecological economy and recycling economy is content requirement and forms realization. Recycling economy is more specific in content, more clear in means and hierarchy and more feasible compared to the

ecological economy. Therefore, the connotation of ecological economy is wider than the recycling economy and ecological economy is the upgrading of recycling economy.

2. The contact of ecological economy and recycling economy

2.1 Both recycling economy and ecological economy are means to achieve sustainable development

Sustainable development is the need of the three-in-one development of sustainable ecology, economic development and social progress. Ecological economy is to shape a mode of sustainable development in the ecosystem. It uses the theory of ecological economics and the approach of systems engineering in order to change the patterns of production and consumption, to excavate all potential of the resources available, to develop the economically developed and ecologically efficient industries, to establish an environment with a reasonable system, social and harmonic culture, ecological health and appropriate landscape. Consequently the mode of sustainable development is shaped in which both the development and protection are paid attention to, both material and spiritual are developed, both nature and human have a high degree of unification. Recycling economy pursues the harmonious development of society, economy and environment. Recycling economy is a new mode of economic growth put forward in developed countries to coordinate the contradiction between economic growth and resources and environment and then to achieve sustainable development. It advocates the economic development mode which is established on the basis of constant recycling use of substance. Recycling economy alleviates the problems of shortage of resources and environmental pollution through the efficient use of resources, the recycling use and the reasonable disposal of wastes so as to promote the sustainable development of ecology; produces more products and services of high quality with the same consumption of resources to meet the needs of the people through constructing the closed-loop production process of "resources - products - renewable resources", the industrial structure and the development of non-material economy so as to promote the sustainable development of economy; Increases the opportunities of job through elongating the chain of industries in order to contribute to the sustainable development of society. Therefore, both recycling economy and ecological economy are means to implement the strategy of sustainable development and an inevitable choice and an important guarantee for sustainable development.

The relationship of sustainable development and recycling economy is that of goal and means, but recycling economic can not achieve all the requirements of sustainable development.

2.2 Ecological Economics is the theoretical basis for recycling economy

In the final analysis, recycling economy is a mode of economic development. It can not only achieve the sustainable development of environment and human but also improve the ability of economic activities of human. The mode of recycling economy is guided by ecological theory and strives to bring the production activities of human into the natural circulation system in order to achieve coordination with each other and positive interaction between economic development and environmental protection. Therefore, the theoretical basis of recycling economy is ecological economics. Ecological economics is the edge of an emerging discipline which has cross-developed between ecology and economics. It is based on theory of ecology, led by the theory of economics and centered by the economic activity of human. It researches the relation between the economic activity of human and the ecological environment of nature from the broadest range in order to reveal the inner relations and laws between the nature and the social economy.

2.3 The nature of recycling economy is ecological economy

The nature of ecological economy is to develop economy on the basis of the affordability of ecological environment, to expand the reproduction of economy in the premise of ensuring the natural reproduction in order to achieve the "win-win" of economic development and ecological protection and then establish the compound ecosystem of economy, society and nature. While recycling economy is the economy that fuses cleaner production into the comprehensive utilization of waste. It is required to organize the economic activities into a repeating flows of material of "resources - products - renewable resources" in accordance with the mode of natural ecosystems. Then the whole economic system and the process of production and consumption basically do not produce or only produce very little waste, so recycling economy is essentially an ecological economy. It is required to use the law of ecology to guide economic activity of human society so as to realize the eco-turn of economic activities by use of natural resources and environmental capacity.

3. Developing recycling economy and realizing ecological economy

With the concept of sustainable development embedding in the hearts and minds of people, the development of recycling economy has become a kind of consensus, which is bound to bring a new round of economic growth. However, the development of recycling economy is a complicated systematic project and it needs the common effort of society as a whole.

3.1 Emancipating the mind and establishing the awareness of ecological

The deeper the degree of understanding of the employees on recycling economy is, the deeper the degree of supporting

on and participating in the implementation of recycling economy themselves is, the better the effect of the implementation of recycling economy is. We should start with propaganda, education and training, further deepen the understanding on recycling economy of the cadres and the masses in enterprise, and then fuse the concept of recycling economy into the corporate culture. We should further clarify the ideas of development and update the concepts of development, understand dialectically the relationship between economic growth and economic development, change the concept of equating the growth simply with the development. At the same time, we should understand dialectically of the relationship between man and nature and change the concept of simply using and conquering nature. Leaders at all levels and various departments should enhance the understanding of the importance and the urgency on developing recycling economy. It is necessary to be vigilant in peace time and strengthen the sense of resources and the global awareness. It is necessary to mobilize the National People to foster ecology as productivity and protect ecological environment as the environment of investment, to speed up ecological construction and develop ecological economy.

3.2 Optimizing the industrial structure

At present the economic growth in China is still dominated by the mode of extensive growth. The extensive mode of development stimulated the rapid development of economy in China, but it also led to a waste of resources and the continues deteriorating of environment because it is an linearly industrial mode at the cost of high-consumption and high pollution. According to the "the Tenth Five-Year Plan of national economic and social development", by the year 2010, China's GDP will be double that in 2000. If the traditional mode of development is continued to be followed to spur the high growth of economy, the sustainability of the social and economic development in China will be continually undermined. Therefore, we must vigorously develop the environmental industry and develop and utilize fully the renewable resources. It is shown by the trend of economic development in the world and the research of the OECD that the environmental industry based on the concept of recycling economy is surely to be the new growth point of economy and become side by side the most potential three area with information technology and bio-technology and one of the world's leading industries in 21 Century. Through developing the environmental industry, strengthening the comprehensive use of "three wastes" and developing and utilizing fully the renewable resources and new energy, the industrial chain is extended, the new areas of production are opened up and the employment opportunities are increased. At the same time the environmental industry assumes the functions of the decomposition and deals innocuously with the pollutants that can not be recycled again.

3.3 Practicing Technical Innovation

Nowadays the wave of green is emerging and spreading in the globe and the green economy is booming, it is necessary to develop recycling economy for China to synchronize with the rest country in the world. The development of circular economy must be support by related technology, so it is necessary to carry out technical innovation and develop the green technology. Institutions specializing in science and technology-related research and development should be set up in China. Relying on scientific and technological progress and innovation, we should increase investment in key technologies of resource conservation and recycling research, promote the use of new technologies, new equipment and new materials on resources-saving, and take efforts to reduce the consumption of raw materials and energy, and then build the technical support system of resource-saving and recycling economy.

3.4 Carrying out Management innovation

Recycling economy is a new, advanced economy and it stresses the coordinated development of the economic system, the social system and the environmental system. Recycling economy is systems engineering that integrate economy, technology and society in a set. Not only advanced technology but also scientific management is needed. So we must carry out management innovation and establish the green management philosophy that adapts to the requirements of the development of recycling economy. The green management is an important trend of operation and management in future. Enterprises should strengthen the concept of green consumption and market competition market, raise the level of science and technology, and improve the operation through building a green management system, so that the efficiency of the resource utilization in enterprise is maximized, the discharge of "three wastes" and environmental protection are optimized, and the production of the products is green. At the same time, the whole process of product life-cycle should be carried out environmental management, that is, fuse the environmental factors into the design of the entire product and process, implement the environmental control in the life-cycle stage of product, so that the adverse impacts on environment reach to the minimum and achieve the sustainable development.

3.5 Implementing innovation of Laws, regulations and systems

The development of recycling economy is related with the society, economy and environment and so on and its development can not be achieved simply relying on market economy. The system of policies and regulations needs to be built to provide the guarantee for the development of recycling economy according to the law. The comprehensive laws and regulations separate on the development of recycling economy should be instituted, or related departments further enrich the relevant provisions of laws and regulations that promote the development of recycling economy in the

related laws and regulations in China. Related departments adopt related departments to guide and regulate recycling economy in order to ensure that there are laws and rules to follow. At the same time, the related financial and taxation systems should be reformed. The financial and taxation policy can influence the economic benefits and economic decision-making of the economic subject in order to achieve the direct and indirect regulation and control on micro-economy. The related departments can also study on the establishment of the economic policy that is conducive to establish the eco-industrial network in line with the requirements of recycling economy and then promote the development of recycling economy.

3.6 Executing innovation of invigorative and supervisory mechanism

In view of the identities of recycling economy such as large investment and long-term returns, the traditional incentives cannot attract much interests of developing recycling economy in enterprise. Therefore invigorative mechanism of developing recycling economy should be established and improved to enhance the enthusiasm of developing recycling economy in enterprise. China should establish and improve the financial and taxation policies in favor of the development of recycling economy, promote the practice of recycling economy in enterprise with more effective means such as economic incentives and other incentives, establish the economic compensation mechanism of ecological recovery and environmental protection with such means as price, tax and credit, and guide enterprises to develop recycling economy voluntarily. At the same time, the evaluating index system of recycling economy in enterprise should be established to play the role of supervision and management.

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