

The Enlightenment of Japanese Low Carbon Economy to Chinese Policy Making is Analyzed from Economic Angle

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Abstract

Low carbon economy has gradually become a new economic model in the world, and countries all over the world pay more and more attention to it. Based on the realization of sustainable development, starting from the development of low carbon economy in Japan and related policies, combined with the research results at home and abroad, the paper further discusses global climate change, resource development, environmental pollution, ecological destruction, species diversity and other issues, points out that our country must transform its development mode to achieve sustainable development, and combine our national conditions, especially from the economic perspective. Propose effective solutions to solve these problems.

Keywords

Low Carbon Economic; Policy Enlightenment; China; Japan.

1. First, The Development of Japan's Low-Carbon Economy

Because Japan is an island nation surrounded by the sea compared to other countries, and because of the limitations of its natural environment, Japan is the country most affected by climate change. The impact of climate change on Japan's economic and social development cannot be underestimated. Therefore, in 1997, Japan signed the Kyoto Protocol, which started the global response to global climate change, energy conservation and emission reduction, and the development of low-carbon economy. Japan's low-carbon construction economy can be roughly divided into three stages: the embryonic stage, the initial stage of construction and the comprehensive construction stage.

1.1. Embryonic Stage

The germ of the idea of developing a low-carbon economy in Japan can be traced back to around 1973, when Japan, under the pressure of the international oil crisis and destruction, began to explore a new development path to replace the existing economic development mode. Therefore, in 1974, Japan began to implement the "Sunshine Program", which mainly studied and developed clean energy such as solar energy and geothermal energy to replace oil energy. Later, it successively launched the "New Sunshine Program" and the "Global Warming Countermeasure Promotion Law" [1].

1.2. Preliminary Construction Period

With the deterioration of the global climate, all countries in the world are actively developing low-carbon economy. Not to be left behind, Japan began to study the possibility of introducing low-carbon economy in Japan and began to formulate appropriate policies and measures to promote the development of low-carbon economy. Since the 1990s, in order to solve the waste problem, the Japanese government completely revised the Waste Disposal Law in 1991 and again in 1992. While amending the Waste Disposal Law, the Japanese government also

introduced laws on the utilization of renewable resources to reduce the load on the environment [2].

1.3. Comprehensive Construction Period

After confirming the feasibility of developing low carbon economy in Japan in the early stage, the curtain of building a comprehensive low carbon economy in Japan was officially opened. During this period, the Japanese government has refined its national strategy for developing a low-carbon economy. The goal, concept, development stage and specific implementation measures of the development of Japan's low-carbon economy are put forward. The Low-carbon Development Action Plan is the symbol of entering the comprehensive development stage.

In July 2008, in order to further realize the goal of building a low-carbon society, the Japanese Cabinet put forward the "Action Plan for Developing a low-carbon Economy", which mainly elaborated the specific plan and corresponding efforts to be made, and further detailed the "Fukuda Blueprint".

In April 2009, the Ministry of Environment issued a draft policy, Green Economy and Social Change, in order to achieve the reduction of greenhouse gases and promote the development of low-carbon economy in Japan. In May of the same year, Japan adopted an "environmental points system" to push its citizens towards low-carbon consumption.

In March 2010, to further promote the construction of a low-carbon economy, Japan's Education Ministry started to establish the "Low-carbon Research and Advancement Center", a comprehensive project that combines research and development with practice. The aim is to make it an advisory center for the development of a low-carbon economy. In May, after deliberation by both houses of the House of Representatives and the Senate, the Upper house of Japan finally passed the Low-carbon Investment Promotion Act [3].

2. Second, The Development of Low Carbon Economy

With the deepening of reform and opening up, China's economic development is accelerating. Even during the global financial crisis in 2008, China's GDP maintained a high growth rate of around 9%. By the end of 2010, China's GDP surpassed Japan and became the world's second largest economy for the first time, replacing Japan's position in the world economy. However, behind the rapid GDP growth is the serious damage to the ecological environment and the large amount of greenhouse gas emissions. China is already the world's largest emitter of carbon dioxide. Therefore, under the dual pressure of climate change and economic transformation, low-carbon economy can help China solve the above problems.

In the early 1990s, the early idea of low-carbon economy began to sprout in our country, namely began to attach importance to environmental problems. In August 1992, China for the first time issued a programmatic document on environment and development -- Ten Measures for Environment and Development in China. The main content of the Environmental Development Agency of China is that in order to fulfill the provisions of the Climate Convention, slow down the deterioration of atmospheric environment and reduce carbon dioxide emissions, China should improve the efficiency of energy consumption and energy distribution, and implement energy conservation and emission reduction measures.

In 2003, the Program of Action for Sustainable Development in the Early 21st Century was officially promulgated. The program was jointly formulated by the National Development and Reform Commission, the Ministry of Education, the Ministry of Foreign Affairs and the Ministry of Science and Technology. On April 1, 2008, the "New Energy Conservation Law" came into effect. The law implemented the energy conservation target responsibility system and evaluation system, and emphasized that government supervision should combine economic and market means. On April 1, 2010, the amended Renewable Energy Law came into effect,

establishing a system for the purchase of renewable energy generation. In March 2011, the government set a target of reducing carbon dioxide emissions per unit of GDP by 17% in the outline of the 12th Five-Year Plan.

3. Third, The Enlightenment of the Development of Japanese Low Carbon Economy to the Transformation of Our Economic Development Mode -- Mainly by Economic Means

3.1. Reduce Dependence on Natural Resources

According to China's Ecological Footprint Report, China's ecological footprint in 2003 was 1.6 global hectares (1 global hectare refers to the area of one hectare of biological productivity equal to the global average biological productivity), that is, each person needs 1.6 hectares of bioproductive land to meet his lifestyle [4] and develop various clean energy sources to reduce carbon dioxide emissions.

3.2. Preferential Measures Will be Set up to Encourage Enterprises to Engage in Low-Carbon Production and Operation

Low-carbon technologies and industries are generated and developed in response to climate change, which means that "low-carbon" will become the main trend of economic development in the future. The company should also fully see the adaptation and active use of information technology, which will bring a series of huge changes and development opportunities. The company's core competitive advantage in the future should be based on the continuous competition for the production technology of low-energy carbon materials and the innovation ability of product technology. Therefore, in the future, the company should continue to invest strategically in the development of low-energy carbon technology, research and development and continuous innovation of low-energy carbon technology, research and development and continuous monitoring of global enterprises to cope with the risk of global climate change. Refine and formulate relevant technical specifications related to low-energy carbon industry technology and new product application, make good use of implementation to promote the transfer of low-energy carbon technology achievements to the global market, promote enterprises to realize leapfrog healthy development of environmental protection technology, and actively seek market opportunities for the development of Chinese enterprises and actively promote environmental protection commitment [5]. At the same time, the company should also persist in combining the concept of green and low-carbon social responsibility with the concept of product quality management and business integrity, so as to gradually establish a good image in the eyes of the public. We will make good use of international carbon finance opportunities in the new era to develop green and low-carbon finance. Therefore, the government should also actively adopt various strategies such as fiscal and tax policy support, financial policy support and financing support to guide and encourage enterprises to actively develop green and low-energy carbon industrial products and green and low-energy carbon production.

3.3. We will Improve the Consumption Structure and Integrate the Concept of "Low Carbon" into Society

Ordinary people are also the most important subjects to participate in the construction of low-quality carbon society, market economy is the most important stage for the development of low-quality carbon economic activities, and the biggest social function of the government is to lead and encourage. Japan's active construction of a green and low-energy carbon society is mobilizing all the potential energy of the entire industrial society in Japan, covering all aspects of social life such as manufacturing, circulation and consumption, and making a series of important progress that has attracted worldwide attention. The general trend of future

development facing low energy carbon economy is also this, not only to the urgent needs of government enterprises and institutions of energy, but also requires the concept of environmental protection "low carbon" concept to be more popular, along with our country in recent years of energy saving and emission reduction work continued to strengthen, the consumption of energy demand structure continues to optimize day by day, The development of new clean energy such as hydropower, nuclear energy and wind energy will quickly start from scratch and will play an increasingly important role in the adjustment of energy consumption structure layout in the future.

3.4. Clarify the Strength of Government Financial Policy Support, and Break Down Environmental Protection Funds

The Japanese government has done quite well in supporting policies of green fiscal policy and optimizing allocation of resources and environment, which has effectively promoted the development of green economy in Japan. Japan's technology to support China's green economy was also the most advanced in China at the time. In order to actively guide domestic enterprises to actively change the development strategy mode of green operation, guide and actively encourage Japanese citizens to actively advocate the concept of green consumption, the Japanese government's active green fiscal policy has always had a good and significant effect in the rational allocation of green capital.

3.5. Establish a Carbon Fund and Carry out Carbon Financial Trading

Investment and financing barrier is also a big problem that puzzles our low carbon economy. Although the return on investment of energy conservation and environmental protection projects is not low, banks and other financial institutions are reluctant to provide sufficient financial support for energy conservation and environmental protection projects because they are not significant assets, and it is difficult to attract venture capital because of the small number of enterprises specializing in energy conservation and environmental protection [6]. Therefore, following the example of the UK, a carbon fund can be set up from the national financial allocation to provide financial and technical support for the implementation of low-carbon production by relevant enterprises.

Our country has a huge carbon market, but no "price right". The transaction price is often decided by others, so domestic enterprises sell carbon quotas at low price. Therefore, China should gradually establish its own carbon trading market. Although three cities such as Tianjin have established preliminary carbon trading markets, there is still a lack of a national unified market. We should continue our efforts to establish a unified national carbon trading market as soon as possible, give play to the financial leading role of the carbon market, and support the development of our low-carbon economy.

3.6. Adjust the Industrial Structure and Restrict Market Access for High-Carbon Industries

Our industrial structure adjustment is slow, it is difficult to improve energy efficiency in the short term. At present, the ratio of primary, secondary and tertiary industries is still 1:5: 4, the industrial structure is seriously unreasonable, economic growth is too dependent on the secondary industry, especially the heavy chemical industry has a high proportion, energy consumption is low, the tertiary industry and service industry lag behind, the proportion is low. At present, the service industry in modern industrial developed countries accounts for 60% to 70% of GDP, information technology and modern service industry are the industries with the greatest potential for low-carbon economic development. The level of Chinese modern service industry is obviously enhanced and should become an important content of industrial structure adjustment [7].

4. Fourth, Conclusion

After the above analysis, this paper mainly draws the following three conclusions:

Firstly, the development of low-carbon economy is the general trend. All countries in the world are actively developing low-carbon economy, because it can realize the sustainable development of the world economy. Under the dual pressure of economic transformation, the domestic economic development system and the international demand for China's emission reduction, China is the best choice to develop a green and low-energy carbon economy, and also an inevitable choice as a truly responsible country. To develop China's low-energy carbon economy, the country must have a green and low-carbon policy system with appropriate strength to support it. However, China still lacks international experience in the formulation and introduction of the green and low-carbon economic policy system, so we need to refer to some successful experiences formulated by some developed countries. Among the economically developed regional countries, Japan is of great reference value, because China and Japan also have a lot in common in terms of social and economic development patterns, and Japan is in a leading position in the world in terms of low-carbon economic development.

Secondly, it analyzes the development course of Japan's low-carbon economy and compares it with that of other European and American countries, proving that Japan's low-carbon economy development experience is more suitable for China.

Thirdly, combining with the existing problems in China's low-carbon economic policies, from the perspective of economics, creatively put forward the policy suggestions for developing low-carbon economic policies with Chinese characteristics, including reducing the dependence on natural resources and establishing preferential policies. Measures to support enterprises to engage in low-carbon production and operation; Improve the consumption structure and integrate the concept of "low carbon" into society; Clarify government fiscal policy support; Implement environmental protection funds; Create a carbon fund.

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