
Circular economic development in Vietnam

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Abstract: In Vietnam, economic activity has so far been mainly based on the traditional approach, which is linear economy. This is also the basic cause leading to the shortage of natural resources and especially causing serious environmental pollution. In order to realize rapid and sustainable development, to harmoniously deal with the relationship between economic growth and environmental protection, to "do not trade off" economic growth with environmental pollution and degradation, to switch to an eco-friendly economy. circular economy is the right direction. However, this transformation requires seizing the opportunities and accepting the challenges that need to be overcome. The article analyzes opportunities and challenges of circular economy development and proposes solutions to promote circular economy development for Vietnam in the coming time.

Keywords: Circular economy, resource depletion, environmental pollution, climate change, Vietnam

Introduction

Vietnam, after a long period of development based on natural resources and cheap labor, has achieved much in socio-economic development, but is facing many serious challenges in terms of resource depletion, resources, environmental pollution and climate change. Therefore, Vietnam needs to show responsibility in solving global challenges caused by environmental pollution, climate change, and improving the competitiveness of the economy. Building a society that consciously takes advantage of used materials instead of consuming treatment costs, minimizes exploitation of natural resources, makes the most of the value of resources, and minimizes them. waste, gas emissions into the environment, protect people's health. It is necessary to orient to build an advanced economy to reduce the risks of overproduction and resource scarcity, create new investment and job opportunities, reduce production costs, and increase supply chains. Stemming from the actual situation of Vietnam and experiences from advanced countries, the circular economy is an effective solution for sustainable socio-economic development of the country, in line with the conditions of the country's natural resources. resources are limited and are gradually being exhausted, the environment is being degraded. Vietnam needs to focus on implementing solutions to develop the circular economy, harmoniously solving the relationship between economic growth and environmental protection.

Relevant Literature

The circular economy originates from the ideas and contributions of American scientists such as John Lyle, William McDonough, German chemist Michael Braungart and Swiss economist and architect Walter Stahel over the past decade. 70 of the last century (Winans, Kendall & Deng, 2017). The concept of a circular economy was first used formally by Pearce and Turner (1990) in the sense that this economic model is based on the basic principle of "everything is an input to something else". for the traditional linear economy.

In the late 90s of the twentieth century, many countries in the world and international organizations focused on developing the circular economy on a deeper and broader scale. At the 2012 Global Economic Conference, the Ellen MacArthur organization presented a widely accepted definition of the circular economy. Accordingly, "a circular economy is a system that is regenerative and restorative through proactive planning and design" (Macarthur, 2021). Kirchherr et al. (2017) reviewed 114 definitions of circular economy and the group's paper in less than 3 years has reached 1,500 citations. "Specifically, the circular economy is an economic system developed on the basis of business models. In which, the concept of end-of-life is replaced by the reduction, reuse, recycle and recovery of materials in the production, distribution and consumption of products. Therefore, the circular economy will apply at small (manufacturer, company, consumer), medium (eco-industrial zone), large (city, region, national and transnational) levels. The circular economy aims at sustainable development in which environmental quality, economic well-being and social justice are created. It all benefits present and future generations" (Kirchherr, Reike & Hekkert, 2017).

Potting et al., The circular economy is a system of factors (9Rs): Rejection (R0 - Reducing redundant functionality in a product or attaching a function to very different products); Rethink (R1- Change your mind about using the product); Reduce (R2 - Reduce costs when producing and consuming products); Reuse (R3 - Transfer usable items to others for use when the original user does not need them, or restore the functionality of the product after a period of use); Repair (R4 - Repair and maintain the product so that it can be used as original); Refurbished (R5 - Maintain and upgrade the product for use); Remanufacturing (R6 - Using usable components in the damaged product to produce a new product with the same function); Reuse (R7 - Using a defective product or its parts and components to manufacture products for other uses); Recycling (R8 - Recycling materials to produce new products; Recovery (R9 - Destruction of materials with energy recovery) (Potting, HekkertWorrell & Hanemaaijer, 2017)

In their research, Nam & Hanh said that the Theosophical economy operates on the basis of three basic principles, which are "Conservation and development of natural capital through control, in order to use manage resources and regenerate natural systems; especially promoting the use of renewable energy; Optimize resource return by circulating products and materials as much as possible in engineering and biological cycles and improve overall system performance by minimizing standard externalities. through waste design, pollution design from the very beginning of the production process" (Nam & Hanh, 2019)

Huyen, V.B and Toan, N.N identified 3 core contents of the circular economy as "Reducing emissions to the environment through economical and efficient use of raw materials and energy and the use of raw materials and energy. renewable; Reuse, repair, and maintain to prolong the product's life; Recycling, making use of scrap, waste becomes production input" (Huyen & Toan, 2021)

In the current context, the transition from a straight to a circular economy is essential for all countries in the world, notwithstanding Vietnam. The cooperation of the whole society, breakthrough in thinking, innovation, in order to contribute to providing solutions for businesses and localities, technology transfer and education, raising awareness to promote development. Circular economic development is very necessary and urgent. Recently, in the policies of the Party and State such as: Resolution No. 55-NQ/TW dated February 11, 2020 of the Politburo on orientations of Vietnam's national energy development strategy to 2030, vision to 2045; Decision 889/QD-TTg dated June 24, 2020 of the Prime Minister approving the national action program on sustainable production and consumption for the period 2021-2030; *Document of the 1eth National Delegation*, Summary report on 10-year socio-economic development strategy 2011-2020, formulation of 10-year socio-economic development strategy 2021-2030, concept "circular economy" has been updated and is considered as one of the important solutions and approaches to the goals of socio-economic development and environmental problems of our country in recent years. big.

This is the original documentary value for the author to inherit, the opportunity to conduct and the formula in the development of the circular economy in Vietnam today.

Research Method

Method and Data

To do the research, the author uses qualitative research methods and explanatory methods. Qualitative research method: Based on the theory and model from previous studies to collect information, then analyze the current situation (opportunities and challenges) of developing the circular economy model in Vietnam. Text analysis is used to analyze and interpret the content of the novel.

At the same time, the article also uses a synthesis of specific research methods such as history, logic, comparison, analysis, synthesis, induction and deduction, data synthesis to serve the research and present articles.

Discussion

Vietnam attended the World Forum on Circular Economy in 2019 in Finland and participated in the Program to share experiences in policy development, visit production models, and actual business of products from this economy in Germany. These are good opportunities for Vietnam to receive a lot of information, learn from successful experiences and ideas to develop policies and apply their own circular economy model. There have been a number of circular economic models implemented, bringing certain effects, such as: the model of ecological industrial parks in Ninh Binh, Da Nang, Can Tho...; model of processing aquatic by-products (shrimp shells, shrimp heads) to create Chitosan and SSE; the initiative not to discharge waste into nature initiated by the Vietnam Chamber of Commerce and Industry; initiative to recycle Tiger beer cap into iron to build a bridge in Tien Giang... Most recently, on July 2, 2020, Vietnam's first Institute for Circular Economy Development (ICED) was announced to be established in order to carrying out the mission of scientific research, innovation, focusing on scientific - technological solutions and policies in the development of circular economy in Vietnam on the basis of the business - Government - university ecosystem. In the medium and long term, ICED sets a vision to become the leading center of circular economy in Vietnam and the region on the basis of becoming a Center for Research and Development of a Circular Economy model in

accordance with the conditions of the circular economy. Vietnam case, policy recommendations in the application and development of stakeholder models. In addition, ICED will provide knowledge and solutions on science - technology, innovation to serve the development of the circular economy in the country and in the region; is a center for technology transfer, consulting solutions and policies on sustainable development for the Government, businesses and local communities. At the same time, this is also a center for connecting businesses - the State - universities, linking interests and needs between related parties towards the goal of sustainable development.

It can be said that Vietnam is facing many opportunities to develop a circular economy, specifically:

Firstly, the circular economy is now becoming a common development trend globally and is considered as one of the priorities to be prioritized in the national development policies of many countries around the world towards sustainable development, such as: EU, Sweden, France, India, etc. In fact, many countries have succeeded in developing the model of the local economy and reaped many benefits. Vietnam has the opportunity to learn from the experiences of previous countries and draw lessons to apply to the domestic context.

Secondly, Vietnam is a country with a strong speed of deep integration into the economy, especially participating in bilateral and multilateral free trade agreements, free trade agreements. new generation. Most of these Agreements contain provisions and agreements on sustainable development, environmental protection, response to climate change and compliance with waste and emission standards. This will be a premise to promote Vietnam to accelerate its transformation to a circular economy model.

Thirdly, the State has issued many guidelines and policies on transforming the growth model towards sustainability; strengthen management of natural resources, protect the environment in response to climate change; increase recycling and reuse. Vietnam is in the process of perfecting the socialist-oriented market economy institution with the aim of developing a fast and sustainable economy. Meanwhile, the circular economy model can meet the above goal in our country's policy guidelines. Along with that, policies to encourage and create mechanisms for the private economy to develop in the context of a competitive market will have many opportunities for private sector investment in implementing circular economy development in the future. next time.

Fourthly, Vietnam has been heading to the fourth industrial revolution, research and promotion of technological innovation, moving from the real world to the digital world will be a great opportunity to realize economic development. cycle, resulting in a higher growth efficiency than the previous growth method.

Fifthly, developing a circular economy can solve resource scarcity, protect the environment, respond to climate change and bring about high economic efficiency, helping to achieve many goals and targets. requirements of the sustainable development goals. Therefore, the knowledge economy will receive high support and consensus from the whole society. This is a great source of motivation to promote the development of this economic model.

As a country with a backward economy, the transition to a circular economy with many high requirements of the development and integration trend has posed many challenges for Vietnam such as:

First, the policy framework on developing the circular economy model has not been clearly and specifically formulated. Vietnam currently does not have a legal corridor to develop circular economy. Currently, Vietnam still lacks mechanisms and policies to promote circular economy such as:

regulations on responsibility for recalling and taking advantage of resources from used products of enterprises; economic tools and policies such as resource tax, environmental protection fee, etc.

Second, awareness of the circular economy and the need for a transition to the development of a circular economy model is still limited. The correct awareness of the circular economy needs to be made from the design stage to the implementation stage for each industry, each field, and needs to be agreed and unified from the leaders, all levels of management to each enterprise and business. citizen.

Third, resources for the transition to circular economy development are still weak. The circular economy must be associated with scientific innovation and access to advanced technology. In addition, to develop a circular economy requires a team of good experts who can solve problems from the beginning to the end of the whole process.

Fourth, Vietnam still lacks enterprises capable of technology in recycling and reusing used products; It is difficult to immediately change the production and consumption habits of the whole society today for many easy-to-use products such as plastic bags and disposable plastic products to using only recyclable materials and products, fully reusable; Vietnamese small and medium-sized enterprises find it difficult to invest in technological innovation.

To promote the development of a circular economy in Vietnam, it is necessary to synchronously implement solutions from raising awareness to perfecting institutions and implementing organizations, specifically:

Firstly, complete the legal corridor to serve the development of the circular economy. Accordingly, it is necessary to amend and supplement the Law on Environmental Protection, specifying the specific responsibilities of manufacturers and distributors in the recovery, classification and recycling or payment of treatment costs for waste products. removed based on the number of products sold in the market; manage projects according to the life cycle, establish a roadmap for the development and application of environmental standards and regulations equivalent to the group of advanced countries in the region. Along with that, speeding up the completion and issuance of preferential policies and mechanisms, supporting the promotion of the environmental industry, including the recycling industry. Promulgating technical regulations and standards, promoting the development of the market for exchanging by-products and waste products to connect the chain between disposal - recycling - reuse so that waste and waste become secondary resources in the closed-loop system of the new production cycle.

There should be a clear legal corridor for the formation and development of circular economic models. Enterprises are the central driving force, the State plays a constructive role, organizations and individuals participate in implementation. The State's tectonic role is shown in creating an environment for the circular economy to develop. Vietnam may consider including both approaches to implementing the international circular economy in its roadmap.

Secondly, building an in-depth economic growth model, effectively using input resources, applying science and technology to industries, especially waste treatment to regenerate new materials. Regulating a roadmap to replace fuels, products using hazardous materials, single-use products with environmentally friendly fuels and materials, reusable products, prolonging their use life. usefulness of the product.

Thirdly, adjust energy planning, gradually reduce dependence on forms of energy from fossil fuels, hydropower; controlling and selectively attracting investment projects on the basis of considering

factors of production scale, production technology, environmental engineering and project implementation location. Building a technology transformation roadmap based on energy saving and efficiency criteria, and waste reduction.

Fourthly, promote research, promote the application of technological advances, directly or indirectly, to support the transformation of the traditional economy to a circular economy. It is from this requirement that in each stage, the State needs to choose to support the research and application of scientific and technological advances in a synchronous manner for the entire chain of material transformation from exploitation to use. resource utilization until the completion of consumption/use of products/services created from resources and recycling or reuse, to return the original resources to the service cycle. social demand. Because the usage needs, investment needs and efficiency of each material transformation cycle are different and the resources serving the realization of this transformation process are also different, the choice has important implications. important for the expansion and development of the circular economy.

Fifthly, to expand the circular economy, manufacturers need to clearly define what is the top priority of enterprises. Instead of making products as quickly and as cheaply as possible, product durability and sustainable manufacturing are key. Products need to be designed to be easily recyclable if they are not to end up in landfills. In addition, businesses need to make efforts to develop environmentally friendly supply chains. In particular, the most difficult part of the mission to expand the circular economy will be convincing consumers to change their shopping habits.

Sixthly, strengthen the exchange and learn from international experiences, especially countries that have successfully implemented the model of the local economy, thereby transferring and applying it to the specific circumstances of Vietnam. Develop a Marketing Communication Strategy to raise awareness among manufacturers and the public about their responsibility for products throughout their life cycle.

Conclusion

Developing circular economy is a common trend of the world community and Vietnam is not an exception to that trend. It is the best way to break the long-standing link between economic growth and the negative effects of resource depletion, pollution and environmental degradation, in other words, there is no longer a trade-off between development and environmental degradation. economic and environmental protection, simultaneously realizing many goals of sustainable development. In the context of international integration, economic urbanization, population growth and changes in consumption patterns have been and will lead to consequences of increasing depletion, degradation and pollution. Choosing an approach to transition to a circular economy should be considered as an indispensable thing to do in order to achieve the goal of "fast and sustainable economic development", shortening the development gap compared to other countries. in the region and around the world. To realize this orientation requires the efforts of all sectors of society, especially enterprises as the central driving force, the state plays the role of creating, leading, and the community participates in implementation to achieve this goal. changes in both awareness and behavior of the whole society.

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Conflict of Interest

The authors do not have any conflict of interest to declare.

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