



RESEARCH ARTICLE

Evaluating The Legal Framework for Promoting Circular Economy in Vietnam

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ARTICLE INFO	ABSTRACT
Received: May 21, 2024 Accepted: Jun 20, 2024	The purpose of this study is to analyze and preliminarily assess the current status of laws and regulations to provide an overview of the legal framework, identify the regulatory gaps and propose measures required to promote Circular Economy (CE) in Vietnam. The motivation for this study stems from the urgent need to comprehensively evaluate the existing legal framework governing CE in Vietnam. CE is a vital component of contemporary sustainable development, aiming to optimize resource utilization and minimize waste. Vietnam, experiencing rapid industrialization and urbanization, faces environmental challenges and resource depletion. However, the current regulatory landscape lacks a dedicated CE framework, resulting in a scattered set of regulations across various legal documents. This intricate situation poses obstacles to both research endeavors and the effective execution of CE initiatives. A well-structured legal foundation is essential for responsible environmental practices, attracting investment, fostering innovation, and ensuring long-term sustainability. Research using the method of analyzing publicly available primary sources, primarily legal documents, regulations, and government policies. Additionally, secondary sources related to CE, such as domestic and foreign academic research, reports on the circular economy of organizations, and opinions from experts published on reputable Vietnamese websites, have been considered. The study shows that Vietnam has made significant strides in establishing a legal framework to promote the development of CE with many regulations incorporating various aspects of this model. However, it's not currently a well-structured legal framework dedicated to CE. The provisions are dispersed across various legal documents, resulting in complexity and challenges in researching and practicing. The study, thus, also suggests some issues that need improvement to create a more comprehensive legal framework on CE. The study has practical implications for researchers and legal experts in the context of lacking a comprehensive and synchronized legal framework on CE in Vietnam.
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INTRODUCTION

In recent years, the concept of a circular economy (CE) has gained significant traction as a viable and sustainable approach to economic development (Ghosh, 2019; Marsh et al., 2022). As the traditional linear model of "take, make, dispose" faces mounting criticism due to its adverse environmental consequences and resource exhaustion (Norouzi, 2022), the circular economy has emerged as an alternative approach with the potential to revolutionize economic practices. Remarkably, there exists no universally accepted definition of the circular economy, prompting this study to endeavor in proposing a comprehensive clarification. By establishing a framework of reduction, reuse, and recycling, the circular economy aspires to establish a self-sustaining cycle that minimizes waste and optimizes the exploitation of resources (Li & Lin, 2016).

Similar to numerous nations, Vietnam is confronting the urgent need to address environmental degradation, resource scarcity, and economic inefficiencies (Thu et al., 2022). The adoption of a CE framework holds the promise of not only mitigating these challenges but also fostering sustainable and inclusive economic growth. To achieve this transformation, a robust legal framework is imperative, providing the necessary guidance, incentives, and regulations to align various stakeholders towards CE practices.

This paper embarks on a preliminary assessment of the current legal framework that drives circular economy development in Vietnam. The dynamic landscape of global markets, coupled with evolving environmental priorities, necessitates a comprehensive analysis of the legal tools in place to facilitate circular economy practices. Through an examination of relevant laws, regulations, policies, and initiatives, this study seeks to shed light on the strengths, weaknesses, opportunities, and potential gaps within the existing legal framework. The objectives of this paper are threefold: first, to provide an overview of the CE concept and its relevance in the context of Vietnam's economic and environmental challenges; second, to assess the effectiveness of the present legal framework in promoting CE practices across various sectors; and third, to offer insights into potential areas for legal refinement and enhancement to better align with the goals of sustainable and circular economic development.

In pursuit of these objectives, the subsequent sections of this paper will delve into the intricacies of Vietnam's legal landscape, examining key legislative instruments, policy initiatives, and practical implementations. By critically evaluating the existing legal mechanisms, this study aims to contribute to the ongoing discourse on the integration of CE principles into the legal framework, thereby fostering a more resilient and ecologically responsible economic direction for Vietnam.

Overview of Circular Economy and the Legal Framework for Circular Economy

Concept of Circular Economy

The concept of the circular economy (CE) was officially pioneered by Pearce and Turner (1990). At its core, CE represents a fresh economic paradigm built on the core principle that "everything serves as input for something else" marking a sharp contrast to the traditional linear economy. While numerous definitions of CE exist in scientific literature and specialized journals, the most renowned is that presented by the Ellen MacArthur Foundation (2012). Accordingly, CE is characterized as a regenerative system driven by proactive design and planning. It departs from the traditional "end of life" concept and embraces restoration, transitioning towards renewable energy adoption, eliminating harmful substances that impede reusability, and prioritizing waste reduction through innovative material design, products, technical systems, and business models within its scope (Ellen MacArthur Foundation, 2012).

Furthermore, the United Nations Industrial Development Organization (UNIDO) introduced its perspective on the Circular Economy in 2017, defining it as a fresh way to create value and prosperity.

It achieves this by making products last longer through design and service improvements, and by efficiently reusing resources multiple times, instead of just once. Geissdoerfer et al., 2017 offered their interpretation, describing this model as "a regenerative system wherein resource inputs, waste, emissions, and energy losses are minimized by slowing, closing, and narrowing material and energy loops. This can be achieved through durable design, maintenance, repair, reuse, remanufacturing, refurbishment, and recycling". At its core, the circular economy revolves around the closed-loop flow of raw materials and the utilization of resources and energy across various stages (Yuan et al., 2008). This framework is rejuvenated through strategic design to ensure that products, components, and materials retain their utmost value and utility (Webster, 2015).

In essence, the circular economy, in simple terms, encompasses reduction, reuse, and recycling, which entails transforming waste back into input sources within the production process. This effectively closes the loop on resources, distinguishing itself from the traditional linear economy's practice of consuming substantial amounts of non-renewable resources in the "take-produce-dispose" pattern. The central tenet of this model centers on fostering positive societal benefits, decoupling economic activities from the depletion of finite resources (Ghosh, 2019), while pursuing a trajectory aligned with sustainable development.

In the context of Vietnam, the term "CE" is formally defined within the 2020 Environmental Protection Law, Article 142, Section 1: "The circular economy is an economic model wherein design, production, consumption, and service activities are geared towards curbing resource and material exploitation, extending product life cycles, minimizing waste generation, and mitigating adverse environmental impacts." This definition harmonizes with prevalent global approaches, highlighting the universality of the concept.

Advantages of the Circular Economy over Linear Economy

The circular economy's emphasis on reducing waste, its long-term sustainability vision, its potential for positive environmental impact, and its shift towards service-based business models all contribute to its advantages over the Traditional Linear Economy. These advantages align with the Sustainable Development Goals, especially those related to responsible consumption and production, reflecting a global shift toward more sustainable and responsible economic practices (Nohra et al., 2020; Lelyk et al., 2022). CE represents a clear departure from the Linear Economy across 04 critical dimensions, each serving to reinforce its superiority.

Approach: In its approach, the circular economy meticulously follows the 'reduce, reuse, and recycle' framework, an approach that completely eradicates waste from the equation, in stark contrast to the Linear Economy's 'take-make-waste' model. This shift lays the foundation for significant resource conservation.

Vision: CE boasts a visionary outlook, prioritizing sustainability at every juncture of a product's lifecycle. This long-term vision is rooted in practices such as product updates, repairs, and regeneration, which collectively extend the utility and value of products.

Sustainability perspective: When it comes to sustainability perspectives, the contrast is pronounced. The Linear Economy strives for eco-efficiency but often misses the mark, essentially delaying the inevitable flow of resources from production to waste through the reprocessing of materials into lower-value products, a practice known as downcycling. In stark contrast, CE strives for eco-effectiveness, eliminating environmental harm and generating positive impacts by creating higher-value products from materials, a process termed upcycling.

Business model: Finally, the Circular Economy introduces a fundamental shift in the business model. It pivots from the conventional product-centric approach to a service-based one, wherein a single

service can be shared among many, reducing the need for repetitive production. This transformation redefines ownership and is instrumental in curbing resource consumption.

The Need for Establishing a Legal Framework for Circular Economy

The CE represents a transformative shift towards sustainability and resource efficiency. To fully harness its potential, the establishment of a legal framework is not just desirable but essential. Vietnam, like many nations, finds itself at the intersection of opportunity and necessity when it comes to embracing CE. While the country has witnessed a surge in CE-related activities in recent times, it still lacks a comprehensive national-level framework to guide and regulate these transformative endeavors (Trung & Nam, 2020; Van & Phuong, 2022).

Emergence of Circular Economy in Vietnam: The Circular Economy represents a relatively new frontier in Vietnam's economic landscape. Nonetheless, CE-related activities have been thriving, reflecting a growing awareness of the need for sustainability, resource efficiency, and waste reduction.

Lack of a Comprehensive Legal Framework: Despite the momentum in CE adoption, Vietnam currently operates without a standardized set of objectives, or a well-structured legal framework dedicated to CE. This gap hinders the full realization of CE's potential and poses challenges in terms of regulation, standardization, and coordination.

Supporting Sustainable Development: To foster and accelerate CE activities in Vietnam, it is crucial to establish a national-level comprehensive legal framework. This framework should encompass a standardized set of objectives that align with CE principles, as well as a clear roadmap for implementation. Such measures would not only promote the responsible use of resources but also align Vietnam's development trajectory with global sustainability goals.

Guidance for Various Industries: A well-defined legal framework will offer guidance to various industries and priority sectors, providing clarity on the adoption of circular practices. It can incentivize businesses to embrace CE principles, innovate in product design, and contribute to waste reduction and resource efficiency.

Global Alignment: Internationally, countries are recognizing the imperative of the Circular Economy and adopting policies and commitments in this regard. Having a legal framework ensures that a nation aligns with these global trends, reinforcing its commitment to sustainable practices on the international stage. It also facilitates cooperation and trade in circular products on a global scale, positioning Vietnam as a proactive and responsible participant in global sustainability efforts.

A Catalyst for Circular Economic Activities: Ultimately, the establishment of a legal framework dedicated to CE in Vietnam serves as a catalyst for transformative change. It will facilitate the implementation of circular economic activities, encourage sustainable practices, and help Vietnam become a regional leader in the journey towards a more resource-efficient and sustainable future.

In conclusion, Vietnam's evolving CE landscape, combined with the absence of a comprehensive legal framework, underscores the urgent need to establish a dedicated framework at the national level. Such a framework will not only support the development of the CE but also position Vietnam as a proactive and responsible participant in global sustainability efforts.

Legal Framework for the Circular Economy in Some Countries

European Union (EU)

To comprehensively approach the circular economy (CE), the European Union has enacted a system of policies aimed at waste reduction and increased recycling. Starting from the Circular Economy

Package in 2015, the Circular Economy Action Plan at the end of 2015, the Eco-design Plan from 2016 to 2019, Directive 98 on Waste, and more recently, the Amendment Directive (EU) 2018/851 amending Directive 98, the EU seeks to establish an effective legal framework for waste management. As part of the CE measures, Directive 851 sets out minimum requirements for extended producer responsibility programs, including organizational responsibility, waste prevention, as well as reuse and recycling capabilities for products. It also sets new recycling targets for urban waste (EUR-Lex, 2022).

Sweden

Waste management is not the sole focus of CE, but it's a core issue. Sweden has demonstrated a strong commitment to environmental protection initiatives and policies, especially in waste management, with a recycling rate of up to 99%. Achieving this result required continuous efforts in establishing legal policies, starting from the 1960s with the Nature Conservation Act in 1964, the Hazardous Products Act for Health and Environment in 1973, the Eco-cycle Law in 1994, the Waste Regulation Act in 2001, and notably, the Environmental Code of 1999, which integrated 15 existing environmental laws, forming a comprehensive law governing all environmental impacts by safeguarding human health, the environment, and efficient resource use. Waste collection and treatment, resource management, permit systems, monitoring agencies, and penalties for violations are included in the Waste Regulation Act (Shirley, 2014).

Germany

Similarly, like some other European countries, Germany has fully embraced the CE principles. Laws, policies, and regulations are enforced to ensure resource circulation (Olabode, 2019), including the Waste Treatment Act of 1972, the Federal Air Pollution Control Act of 1974, the Producer Responsibility for Packaging Waste Act of 1991, the Closed Substance Cycle Waste Management Act of 1996, the Landfill Regulation Act of 2002, the Storage of Waste Regulation Act of 2005, and various others like the Battery Act of 1997, the Biowaste Act of 1998, the Packaging Act of 1998, the End-of-Life Vehicle Act of 2002, the Waste Electrical and Electronic Equipment Act of 2006. Notably, in line with the European Commission's guidelines, the Circular Economy Act was passed in 2012. Together with the amended Renewable Energy Act in 2017, it created a comprehensive legal framework that greatly enhances waste management, shifts responsibility to producers, and ensures recovery and reuse.

South Korea

In South Korea, legal regulations are designed to minimize waste and enhance recycling, while also increasing the roles and responsibilities of businesses and individuals. Laws and related regulations have been enacted, including the Waste Management Act of 1986, the Promotion of Resource Recycling and Savings Act (1992, amended 2008), the Green Purchasing Act of 2004, the Resource Circulation Act of 2016, the Basic Act on the Circular Economy of 2018, the Renewable Energy and New Energy Act of 2004, the Marine Environmental Management Act of 2007, and the Basic Act on Environmental Policy of 2012. Each type of waste is subject to regulation: the Promotion and Support of Region-Based Waste Disposal Facilities Act of 1995, the Construction Waste Recycling Act of 2005, the Management and Use of Animal Feces Act of 2006, the Resource Recycling Equipment, Electronic and Electrical Appliances, and Vehicles Act of 2008, among others (Odey et al., 2021). This has promoted recycling and established systems for waste management and resource circulation.

Japan

Japan initiated steps towards CE as early as 1870, but significant results emerged with the use of recycled materials through the Resource Efficiency Law of 1991. Japan has built a circular society by optimizing non-renewable resources and altering strategies for renewable resources. CE in Japan

follows a top-down approach, utilizing legal frameworks and regulations extensively (Olabode, 2019). This includes the Waste Management Act (1970, amended 2010), Act on Promotion of Effective Utilization of Resources (1991), Environmental Law (1993), Collection and Recycling of Containers and Packaging Act (1995), Home Appliance Recycling Act (1998), Basic Act for Establishing a Sound Material-Cycle Society (2000), the Recycling Act (2000), Act on Recycling of End-of-Life Vehicles (2002), Social System-Based on Recycling Act (2002), Act on Recycling of Small Home Appliances (2013), and Act on Recycling of Plastic Resources (2022).

China

China has established legal frameworks to support CE development in several areas: (i) cleaner production (Cleaner Production Promotion Law of 2002); (ii) pollution and waste management (Environmental Pollution Control Law on Solid Waste of 2004, Amendment of Solid Waste Environmental Pollution Control Law of 2016, Environmental Protection Tax Law of 2018, Specific Law on Recycling and Utilization of Solid Waste of 2020); (iii) energy conservation (Energy Conservation Law of 1997, Renewable Energy Law of 2005) (Olabode, 2019). Notably, the introduction of the "Circular Economy Promotion Law" demonstrates China's significant commitment. This law focuses on development planning, expanding producer responsibility, monitoring key water and energy-consuming enterprises, CE index, statistical data, and other management systems (Li & Lin, 2016).

Commonalities and Differences Between EU and Asia

Commonalities

Concerning waste reduction and recycling, both EU and Asian countries have placed a strong emphasis on waste reduction and recycling in their CE legal frameworks. They have set targets and regulations to increase recycling rates and minimize waste sent to landfills. Moreover, both regions have integrated EPR principles into their CE policies. This means that producers are held responsible for the entire life cycle of their products, including recycling and proper disposal. In terms of comprehensive legislation, there is a trend towards comprehensive legislation in both EU and Asia that covers various aspects of the CE, including waste management, resource conservation, and sustainability. With regard to the approach, several countries in Asia, like Japan and China, have adopted a top-down approach to implement CE principles, similar to the EU. They use legal frameworks and regulations extensively to drive CE.

Notably, there is an emphasis on monitoring and reporting mechanisms to track progress towards CE goals. This helps ensure that regulations are followed, and targets are met. Also, Both the EU and Asian countries are influenced by international guidelines and standards, which has led to the adoption of similar approaches and principles in their CE legal frameworks. Last but not least, CE legal frameworks in both regions encourage innovation and the adoption of new technologies to support circular practices, such as eco-design and green technologies.

By highlighting these common characteristics, it is immediately apparent that there is a global trend towards adopting similar strategies and legal measures to promote the CE. While there may be regional variations and specific regulations, the overarching goals and principles are shared among these regions.

Differences

There are differences between Asia and EU regarding their legal frameworks for the CE, largely due to variations in historical, economic, and cultural factors.

In relation to development and maturity, the EU has been a leader in developing and implementing CE policies and regulations. They have a longer history of CE initiatives and have made substantial

progress in terms of waste reduction, recycling, and sustainability. In contrast, many Asian countries are relatively new to the concept of the CE, and their legal frameworks may still be evolving. In addition, cultural factors can influence the adoption and enforcement of CE policies. For example, concepts of sustainability and environmental responsibility may vary between regions. Some Asian countries may prioritize economic growth over environmental concerns, while others may be more proactive in adopting CE practices.

Especially, there are significant economic disparities among Asian countries. Some, like Japan and South Korea, have highly developed economies and can invest more in CE initiatives, while others may have limited resources to allocate to CE development. Regarding international Agreements: The EU is part of international agreements and collaborations related to CE, such as the Circular Economy Action Plan and cooperation with other developed regions. While some Asian countries engage in international collaborations, the level of involvement and commitment can differ.

In conclusion, it's important to note that while there are differences, there is also a growing recognition across Asia of the importance of CE, and many countries in the region are actively working to develop and strengthen their CE legal frameworks. As time progresses, we may see more convergence in CE policies and practices between regions as they learn from each other's experiences and international best practices.

Research situation and gap

Foreign Research

In the global context, considerable research has been conducted on CE, focusing on various critical aspects.

Definition and Principles of the Circular Economy: The Ellen Macarthur Foundation, in their 2012 document titled "Toward the Circular Economy: Economic and Business Rationale for an Accelerated Transition, Vol.1," offers a comprehensive definition of the Circular Economy (CE). This definition serves as a widely recognized reference point for researchers globally. The document not only defines CE but also critically assesses the limitations of the prevailing linear consumption model. Furthermore, it outlines the transition to a CE in select countries. Within this framework, the document identifies three pivotal principles of CE: the reduction and elimination of waste and pollution, the extension of product and material lifecycles, and the regeneration of natural systems.

CE and Sustainable Development: Geissdoerfer et al (2017) delved into the intricate relationship between CE and sustainable development. Their work, "The Circular Economy – A New Sustainability Paradigm?," conducted sharp evaluations and analyses. This research elucidates both the commonalities and distinctions between two areas. Understanding this relationship is instrumental in framing CE within the broader context of sustainable practices.

CE in Specific Countries Around the World: In 2019, Ghosh published "Circular Economy: Global Perspective" in New York City by Springer. This publication offers valuable insights by providing an overview of the Circular Economy in 21 countries across the globe, encompassing Vietnam. The research takes into account various economic and national legal policy aspects, emphasizing the diversity of CE implementation strategies worldwide.

CE Legal Policies:

Proposing Circular Law: Mikichurova & Vlialko in 2021, in their research titled "Circular Law as a Legal Basis for a Circular Economy," explore the legal underpinnings for CE development. They conduct a thorough analysis of international and national legal practices, culminating in the proposal of Circular Law. This conceptual framework consists of legal regulations that define and regulate

social relationships within CE. It serves as the foundation for transitioning from a linear to a CE model.

Improving the Legal Framework: Thomas & Jacqueline (2020) published "How to Improve the EU Legal Framework in View of the Circular Economy." This article scrutinizes opportunities to enhance the existing legal framework within the EU to support the transition to a CE. It critically evaluates the Ecodesign Framework Directive, the Waste Framework Directive, and the Registration, Evaluation, Authorisation, and Restriction of Chemicals Regulation. The paper identifies key areas where legal improvements are essential to facilitate CE adoption.

Specific Legal Issues: Grigorios (2021) contributes to the discourse with "Environmental Legislation in European and International Contexts: Legal Practices and Social Planning toward the Circular Economy." This study centers on the analysis of European environmental legislation in the industrial sector, emphasizing legal compliance practices. The research also explores social plans associated with the Circular Economy. It adeptly presents directives, regulations, research considerations, and social reflections. The paper underscores the impact of legal practices and identifies significant challenges and prospects for future research in the CE legal landscape.

Domestic research

In the context of Vietnam, there is a growing body of literature that evaluates and shapes the nation's transition towards CE. Notably, these studies consolidate global insights, offering policy recommendations that align Vietnam's CE journey with international best practices. Prominent articles, such as Nam & Hanh 's (2019) "Implementing the Circular Economy: International Experience; and Policy Suggestions for Vietnam," and Phu's (2020) "Trends in the Global Circular Economy and Recommendations for Vietnam," provide valuable synthesis of international CE experiences with a local context. Sang (2021) contributes to this dialogue by exploring "Developing the Circular Economy: International Experience and Implications for Vietnam." Furthermore, Phuong & Hien (2021) delve into "Regulatory Mechanisms to Promote Circular Economy Development Worldwide and Policy Implications for Vietnam". A comprehensive overview of barriers, policies, and global CE experiences is presented by Thanh's 2021 paper, "An Overview of Research Documents on Barriers, Policies, and Experiences in Circular Economic Development". Within the legal realm, Toan & Manh's (2022) "Introduction to the Legal Framework for Implementing the Circular Economy in Vietnam" compiles CE manifestations in various sectors while introducing regulatory provisions within the existing Environmental Protection Law. Local experts emphasize the importance of precise CE regulations for economic, social, environmental protection, and climate change adaptation in Hai's 2021 paper "Guiding the Development of the Circular Economy in Vietnam's Legal Documents,". Scholars also underscore the vital role of laws in guiding the transition to a circular economic model, as indicated by Duong (2022) with article "Experiences in Constructing and Improving Circular Economy Legislation in Some Countries Worldwide and Proposals for Vietnam,". However, there remains a need for a systemic approach in planning, legal policy management, and business production practices, as revealed by Manh et al (2021) within study "Proposals to Improve Policies and Laws for CE Development in Vietnam: An Assessment from Practical Perspectives". These combined efforts construct a foundation on which Vietnam can advance its CE policies, supporting economic, environmental, and social aspirations.

It is evident that the circular economy and the related legal framework have attracted the research attention of scholars both globally and in Vietnam. Most research studies focus on the economic aspects of the CE. Regarding law, papers in Vietnam mainly analysis of legal regulations, put forward a number of proposals for building and perfecting CE legal policies on the basis of lessons learned from countries around the world. However, there is still a lack of a comprehensive study assessing Vietnam's current legal framework for the circular economy based on common criteria, which will be presented in the following section.

ASSESSMENT METHODOLOGY

Assessment purpose and research questions

The purpose of this study is to analyse and preliminarily evaluate the current status of laws and regulations in order to provide an overview of legal framework, identify the regulatory gaps and measures required to promote circular economy in Vietnam.

Regarding specific objectives, this assessment targets the following issues:

- (i) Assess the effectiveness of the legal framework promoting CE in Vietnam
- (ii) Evaluate the presence of policies and legal regulations related to CE.
- (iii) Assess the compatibility of Vietnam's legal framework with implementation of CE in practice
- (iv) Analyze the alignment of Vietnam's policies with international practices and laws
- (v) Identify relevant legal gaps and propose some recommendations.

To be able to evaluate in the most objective way, the study focuses on answering some research questions:

- (i) What laws and regulations have been adopted to promote circular economy in Vietnam?
- (ii) What contents of the CE have been adjusted in Vietnam's current law?
- (iii) Are there any legal mechanisms to encourage circular economic activities?
- (iv) How does Vietnam's legal framework align with international laws and regulations regarding CE?

Within the scope of this article, the author provides only a preliminary assessment of overarching regulations and does not evaluate specific aspects of CE.

The assessment is conducted based on research of publicly available primary sources, primarily legal documents, regulations, and government policies. Additionally, secondary sources related to CE, such as CIEM's reports on circular business models, OECD's surveys on Circular Economy in cities and regions, and opinions from experts published on reputable Vietnamese websites, have been considered.

Criteria for assessing the CE legal framework

To conduct a preliminary assessment, it is necessary to rely on certain specific criteria. These criteria are also common when evaluating any legal framework in Vietnam and include comprehensiveness, synchronism, appropriateness, effectiveness.

Comprehensiveness is the first requirement that reflects the level of legal framework's completeness. Any norm or legal document is created and impacted not in isolation or separately, but in a whole set of certain relationships. The comprehensiveness is demonstrated on two levels. Firstly, its structure includes legal documents that comprehensively and fully regulate areas arising in CE. Secondly, each legal document must contain all legal provisions governing the relationships that make up the subject of that legal document. A legal framework lack of comprehensive will create legal gaps and not be effective in promoting transformation to CE.

Synchronism of legal framework represents its uniformity. It encompasses the synchronization between legal documents at an overall level. In specific level, it requires the unity with no contradiction, no duplication or overlap in each document and regulation. Uniformity is also shown in issuance of detailed guidance documents clearly and timely for implementation in practice. A legal

framework is consistent if, and only if, there are no norm-conflicts in the strict sense of norm-contradictions in the system (Torben, 2023).

Appropriateness of the legal framework represents the correlation between the law and the level of socio-economic development. Legal documents must both be consistent with international practices and commitments, while also ensuring the nation's specific conditions. The appropriateness of Vietnam's circular economy legal framework depends on the specific context and challenges facing the country, including its industrial structure and resource availability.

Effectiveness of the legal framework is the actual results achieved by the adjustment and impact of the law, within certain scopes and conditions. It can be evaluated by considering whether the purpose of the law can be achieved in reality or not; quantity and quality of actual results achieved; the costs of achieving those results, etc. Monitoring and enforcing effectiveness are crucial for the success of any management mechanism, and this is supported by strong, comprehensive, and consistent legal provisions (Ambisisi A. et al., 2014). The effectiveness of Vietnam's circular economy legal framework also depends on the extent to which regulations were enforced and complied with by businesses and individuals. If well-implemented, circular economy policies could have led to reductions in waste generation and environmental impact.

RESULTS AND DISCUSSION

Assessment results

According to Research Questions

System of documents regulating Circular Economy:

The term "Circular Economy" officially used in Vietnam in the document of the 13th Party Congress: '...building a green economy, a circular economy, and an environmentally friendly economy.' This serves as an important political foundation for the state to improve the legal framework for CE (Hien, 2022).

Law on Environmental Protection 2020 (comes into force from January 01, 2022) is considered the most important legal basis for implementing CE at the strategic level currently. The law stipulates to incorporate and promote CE and green economy in formulation and implementation of socio-economic development strategies, planning, plans, programs and projects in Clause 11, Article 5. Specific regulations on green procurement (article 146), green bonds (article 150), green credit (article 149), waste management (chapter VI), Extended Producer Responsibility (EPR)... With Article 142, Vietnamese law officially recognizes the term "circular economy" by stating the definition of CE, pointing out the role of the Government and responsibilities of state management agencies as well as the business community in implementing CE.

Providing a definition of CE in a context where there is no unified global definition of CE is a prudent legislative step, making the process of establishing a legal framework on this issue clearer. However, according to Hien (2022), this definition primarily emphasizes environmental factors and waste without clarifying who the participants in this process are, the role of technology in this process, and the economic and social benefits of developing CE. It also does not fully reflect the requirements of sustainable development.

These regulations were further elaborated in Government's Decree No. 08/2022/NĐ-CP detailing a number of articles the Law on Environmental Protection (Chapter X, Section 3). Notably, Decree No.08 defines waste management, especially solid waste management, as a crucial link in promoting circular economic development. Therefore, there are detailed and specific provisions for waste prevention, reduction, classification, collection, transportation, reuse, recycling, and treatment.

Prior to this, the state had also issued several legal documents, including the Mineral Law (2010, amended and supplemented in 2018); Water Resources Law 2012; Land Law 2013; Agriculture Law 2018; Investment Law 2020; and Decree 06/2022/NĐ-CP, which regulates the reduction of greenhouse gas emissions and protection of the ozone layer. These regulations focus on sustainable development by promoting the proper and efficient use of natural resources, the development of clean and renewable energy, and the enhancement of waste collection, classification, recycling, reuse, and reduction. All of these are crucial aspects in the implementation of CE.

In terms of policy, the Prime Minister of the Government has approved several decisions to promote the development of CE in Vietnam, most recent is Decision 687/2022/QĐ-TTg approving the Scheme for the Development of Circular Economy in Vietnam with the objective of 'reducing greenhouse gas emissions intensity on GDP by at least 15% by 2030 compared to 2014, aiming for net-zero emissions by 2050'.

These documents hold significant importance in the process of promoting CE because when combined, they cover the entire material cycle of CE and establish general rules for the entire legal framework (Thomas & Jacqueline, 2020).

CE contents:

According to Vasileios Rizos and colleagues (2017), there are three fundamental principles of CE: (1) Use of less primary resources (by implementing processes such as recycling, efficient use of resources, utilisation of renewable energy sources); (2) Maintain the highest value of materials and products (through processes like remanufacturing, refurbishment, and of products and components, product life extension); (3) Change utilisation patterns (using models like product as service, sharing models, shift in consumption patterns).

In Vietnam, according to Article 138 of Decree No.08, the general criteria for CE include: (a) Reducing the extraction and use of non-renewable resources, water resources; increasing the efficiency of resource and raw material use; energy conservation; (b) Extending the lifespan of materials, equipment, products, goods, components, and parts; (c) Limiting waste generation and minimizing adverse environmental impacts, including reducing solid waste, wastewater, emissions, reducing the use of hazardous chemicals, recycling waste, recovering energy, reducing single-use products, and practicing green procurement.

In essence, Vietnamese law has adopted suitable directions with the general principles of CE worldwide. However, the criterion concerning changing the product usage model has not been specifically addressed, leading to a lack of legal background to be implemented, such as sharing economy models. Regulations related to efficient resource use (resource conservation, renewable energy utilization) mostly remain within framework regulation, with a promotional nature, lacking specific guidance or enforcement measures.

Fields of priority investment and encouragement for implementation:

Decree No.08 provides detailed regulations on this matter in Article 140, covering activities related to science, technology, technical applications, and more to implement CE in accordance with the established CE development criteria. Additionally, organizations and individuals engaging in CE activities in environmental protection projects, as well as in production, business, and environmental services within investment-incentivized projects, industries, and sectors as specified in Decree 08, will be entitled to corresponding policies regarding land (Article 132), investment capital (Article 133), taxes, fees, and charges (Article 134), product support, green public procurement (Article 135), and promotional support (Article 137). Furthermore, organizations and individuals implementing CE under the green project category will also be eligible for green credit and the issuance of green

bonds. This regulation is appropriate and serves as an important legal basis for the implementation of CE, safeguarding the rights and interests of the participating entities.

However, the process of researching legal regulations indicates that there are still no detailed guidelines on this matter, such as criteria for determining projects eligible for incentives or assessing cases where policies are exploited for group interests. Additionally, although priority and support policies have been issued, there are currently no provisions ensuring transparency, accountability, and mechanisms for facilitating, creating conditions, and supporting the implementation of these projects in practice (Hien, 2022).

Compatibility of Vietnamese law with international law:

Most developed countries worldwide are currently transitioning from traditional linear economies to the circular economy. Therefore, both international and domestic laws will undergo fundamental changes to become more circular (Mikichurova & Vlialko, 2021).

Comparing the policies and legislation for promoting CE in Vietnam with other countries, it is evident that Vietnam has established various regulations in various sectors, industries, and regions (Toan & Manh, 2022) (Table 1). Vietnam's approach to the concept and content of CE in its legal framework is also relatively consistent with global laws and regulations.

Table 1: Compare Vietnam's regulations with China and European countries on circular economy

Industry, field	Vietnam	China	EU
A. Production area			
1.Agriculture, forestry and fishery	X	X	
Crop	X	X	
Breed	X		
Aquaculture			
Forestry		X	
2. Mining	X	X	
3. Processing industry, create		X	
Food & beverages	X	X	
Textile	X		
Paper and pulp	X		
Leather, Shoes			X
Wood processing and production of products from wood, bamboo, etc	X	X	
Chemistry	X	X	
Plastic	X		X
Glass - Maintenance			
Steel, metal	X	X	
Electronics, electrical equipment	X	X	
Machine and other equipment	X		
Automobiles and other engines	X	X	X
Repair and maintenance			
4.Electricity, combustion and air conditioning	X	X	X
5.Water, garbage, wastewater	X	X	X

6. Construction	X		X
7. Wholesale and retail, Repair		X	
8. Other activities	X	X	
B. Consumer sector			
1. Intermediaries	X	X	X
2. Government	X	X	X
3. Households & individuals	X	X	X
C. Intermediate area			
1. Urban	X	X	X
2. Rural and mountainous areas	X		
3. Production & business area concentrate	X	X	X
4. Environmental protection Craft villages	X		
D. Waste management			
4.1. Solid waste	X		X
4.2. Wastewater	X	X	X
E. National governance	X	X	X
1. Innovation			
2. Digital transformation	X	X	X
3. Administration		X	X
4. Technology	X	X	X
5. Education			
6. Finance		X	X

(Source: Manh et al., 2021)

Note: X mark indicates countries with legal regulations

Vietnam, like many countries, has enacted laws and regulations related to environmental protection and waste management. These laws may include provisions for waste reduction, recycling, and landfill management. The legal framework also sets recycling targets for specific materials or products, similar to the goals set by many other countries. Many countries have adopted Extended Producer Responsibility (EPR) principles, shifting end-of-life product management responsibilities to manufacturers. Vietnam has also introduced EPR requirements for certain product categories, aligning with global trends.

According to CIEM's assessment, Vietnam is one step ahead of countries with large net emissions such as Brazil, India, China, and Russia. However, fulfilling commitments is becoming increasingly challenging. The 2020 Environmental Protection Law contains more advanced and stringent requirements than countries in the region, causing concerns among many manufacturers. Therefore, they propose that expanded regulations on producer responsibility must have a realistic timeline and follow the progress expected under the Environmental Protection Law (Anh, 2023).

In reality, some countries have demonstrated seriousness in establishing a directly legal framework through CE Law, such as Germany and China. Some countries continuously issue specific regulatory documents for each field, creating a tight and unified legal framework. Vietnam has not done this effectively. We do not yet have a specific law on CE, and related legal provisions are scattered and fragmented, making it challenging for research and implementation.

According to assessment criteria

Recently, CIEM conducted a survey of businesses on the circular economy model. The survey results showed that businesses assess Vietnam's legal framework and policies on circular business as unclear and lacking. Specifically, 63-71% of businesses believe that the policies are unclear, and 55-65% of businesses state that the policy framework is very lacking (Anh, 2022). This indicates that Vietnam's legal framework for the circular economy has not been effectively implemented.

Comprehensiveness:

Through researching regulations, Vietnam's legal framework currently has provisions governing various aspects of CE, including waste management, green public procurement (GPP), extended producer EPR, promotion of recycling markets, incentive measures, support, development of the environmental industry, environmental services, green credit, green bonds, etc.

Vietnam had taken steps to develop a national strategy on the circular economy, indicating a commitment to addressing circularity comprehensively. Environmental protection laws and waste management regulations in Vietnam covered some aspects of circularity, including waste reduction and recycling. Circular economy concepts were beginning to gain attention, with efforts to promote sustainability in various sectors.

However, the comprehensiveness of Vietnam's CE legal framework has been limited by a lack of separate law on CE. Regulations are integrated into various legal documents concerning environmental protection, sustainable development, green growth, and more, making it challenging to consolidate. While Decree 08 provides detailed guidelines, it still lacks specific regulations that address key circular economy principles, such as EPR and sustainable product design. There should be considered for more comprehensive and targeted legislation addressing the entire lifecycle of products and resources, from production and consumption to end-of-life management

Synchronism:

The Environmental Protection Law of 2020 and Decree No.08 are considered the most direct regulatory documents for CE currently. The legislators have begun to create a relatively consistent legal framework to promote CE development. The guiding regulations are presented in a relatively detailed manner, with little to no conflict with the fundamental initial provisions.

However, because there is no separate law for CE, related regulations are scattered across different documents, lacking uniformity and resulting in overlaps, especially in terms of the allocation of responsibilities among various government agencies.

The review of existing regulations is crucial when issuing new legal provisions. We have not done this process well. So, there is a lack of synchronization between environmental laws with land laws, labor laws, investment laws, business laws, taxation laws, and technology regulations in promotion of projects related to the CE (Hien, 2022).

In reality, CE legislation in Vietnam is relatively new, even though precursor models of CE in various sectors were implemented earlier. The legal framework has not yet provided adequate regulation for existing CE models and has not created an efficient legal pathway to regulate new models.

The current legal documents do not clearly demonstrate the integration of CE principles into existing laws and regulations, nor do they reflect effective coordination among various agencies responsible. Ensuring that CE regulations evolve in response to changing environmental and economic conditions would be essential for long-term synchronism.

Appropriateness:

Vietnam's current regulations on CE are fundamentally aligned with the country's socio-economic conditions. Efforts to promote sustainability and waste reduction are also aligned with the country's broader development goals.

Nevertheless, it does not yet have a well-structured legal framework to facilitate organizations and individuals in accessing legal regulations and conducting CE activities effectively in practice. Most circular business models are not yet accurately recognized, even not yet regulated in laws. Thus, a challenge for legislators is to conduct regular assessments to ensure that circular economy policies and regulations are adjusted to fit the country's specific challenges and opportunities.

Effectiveness:

It's difficult to assess the effectiveness of the current legal framework for CE in Vietnam. In essence, both directly and indirectly regulating provisions have begun to take effect. However, according to some experts, regulations related to the circular economy still lack detailed and comprehensive specifics. They do not provide references to relevant legal documents that existed previously to create a coherent legal framework for the development of this economic model.

Additionally, the realization of the circular economy model depends primarily on businesses. A survey conducted by CIEM in 2022 on 508 businesses nationwide revealed that nearly 80% of respondents had a general awareness of the circular economy, and 60-70% of them believed that the circular economy plays an important role. However, their knowledge of circular business models is limited, with only 20-30% having a clear understanding, and just 3-6% having a very clear understanding. Meanwhile, regulations concerning procedures to support businesses remain unclear, incomplete, and not highly effective in practice. So on, only a few businesses have the motivation and resources to invest and develop technology in the environmental sector (Phong, 2022).

Regular monitoring, assessment, and reporting on progress toward circular economy goals are necessary for measuring effectiveness and making necessary adjustments. Vietnam currently lacks the mechanisms and resources needed to carry out this task effectively.

In summary, CE-related legal provisions in Vietnam, while not necessarily lacking in quantity, are relatively basic and may lack feasibility. They are also dispersed across various legal documents, resulting in complexity and challenges in the law's practical application.

DISCUSSION

OECD conducted a survey to gather data on CE in 34 cities and regions in 2019, which increased to 51 cities and regions in 2020. In addition to providing insights into the current state of CE, OECD also compiled barriers to the transition to a CE model. The results indicated that the legal framework is one of the significant obstacles in this process. In 2020, inadequate regulatory frameworks and incoherent regulation across levels of government represent a challenge for respectively 73% and 55% of respondents. (Fig.1)

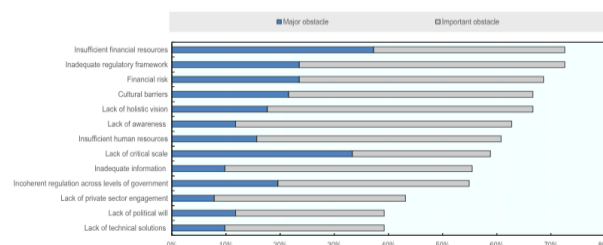


Fig. 1. Main obstacles to the circular economy

Source: OECD (2020)

Indeed, it's not just Vietnam, but many cities and regions worldwide are facing challenges in establishing a comprehensive and coherent legal framework to promote the development and implementation of CE. Therefore, there is a need for a rigorous and clear roadmap on this issue.

Looking at the global landscape, many countries have improved their legal systems to promote more effective development of CE. For example, China enacted the CE Promotion Law in 2009, and in 2012, Germany passed the CE Act. Vietnam has also incorporated CE-related policies into some existing laws. However, to truly establish a solid foundation for CE, it is necessary to develop a dedicated CE Law. In addition, the state should research, develop, and enact laws to regulate specific sectors that contribute to the CE framework.

Currently, one of the most significant challenges to implementing the circular economy is the definition of "waste" in national laws. Some countries, such as Sweden, considered waste as a valuable energy resource rather than something to be discarded as many others defined. This is a progressive step that promotes effective recycling and waste management.

In the absence of a specific CE law, it is crucial to focus on assessing the existing regulations, reviewing previous provisions, detailing the content mentioned in the 2020 Environmental Protection Law and related documents. This can lead to specific proposals on areas that need prioritized development, revision, or improvement to promote CE in Vietnam.

In fact, proposing and enacting laws is a complex and time-consuming process. It requires strong political will, support from various stakeholders, and a commitment to long-term sustainability. Collaboration and consensus-building are necessary to ensure that the legal framework effectively promotes the transition to a circular economy in Vietnam currently.

CONCLUSION

A suitable legal system serves as a fundamental cornerstone for the initiation of a cohesive and harmonized strategy aimed at advancing the implementation of CE within Vietnam. In recent years, both government and relevant agencies have been actively engaged in the construction of a legal framework, thereby achieving significant advancements. The nation laws have encompassed various aspects of CE, notably those encompassing waste management, extended producer responsibility (EPR), and promotion of recycling markets. Nevertheless, there are still some legal gaps and areas for improvement. The existing legal framework in Vietnam relating to CE fails to ensure comprehensive integration, with these regulations dispersed throughout multiple legal documents. It was not until 2020 in the Law on Environmental Protection that the term "circular economy" was officially defined. Consequently, the detailed guiding regulations are not truly the desired synchronism, leading to a lack of appropriateness and feasibility in legal framework, which in turn hampers their practical applicability. People's awareness of this issue is also a big challenge that needs to be overcome.

The article conducts a preliminary evaluation of the CE legal framework in Vietnam through the lens of four fundamental criteria, delineating both positive and negative aspects. It serves the supported role of identifying priorities that warrant consideration when formulating policies, and the issuance of a dedicated CE Law is emerging as an ideal action.

This assessment should be viewed as a starting point, to be followed by a more comprehensive analysis of the legal framework, its practical implementation, and its consequential influence on CE realization across various sectors.

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