

# The legal framework towards the circular economy in the Republic of Kazakhstan

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## Abstract

The circular economy is an important topic of discussion among scientists and government bodies due to global environmental challenges. Kazakhstan, located in Central Asia, is an important regional player in the field of a circular economy. The country has taken significant steps to promote circular economy practices, with the goal of reducing waste, promoting sustainability, and creating economic opportunities. In this article, the legal framework in Kazakhstan that supports circular economy practices was explored. By using the method of policy analysis, the legal framework related to the circular economy in the Republic of Kazakhstan was identified. As a result of the analysis, it was revealed that there are a couple of legal documents, laws, and programs that support the transition to a more sustainable economy. However, the implementation of those laws in Kazakhstan faces several challenges.

**Keywords:** circular economy, sustainable development, Kazakhstan, waste management

**JEL codes:** K30, Q01, Q50.

## 1 Introduction

The circular economy model is gaining increasing attention worldwide as a way to achieve sustainable development and reduce environmental impact. The Republic of Kazakhstan, located in Central Asia, is not an exception. The country has been taking steps to create a legal framework that supports the circular economy, including introducing laws and regulations that encourage waste reduction, resource efficiency, and the reuse and recycling of materials. This study examines the legal framework towards the circular economy in the Republic of Kazakhstan, exploring the key laws, regulations, and initiatives that have been put in place to promote sustainable development and environmental protection.

The Republic of Kazakhstan is a country located in Central Asia and is the ninth-largest country in the world. It is also one of the most resource-rich countries in the region, with abundant reserves of oil, gas, and minerals. With

its vast natural resources, Kazakhstan is faced with a challenge of balancing economic development with environmental protection.

This article consists of introduction part, literature review, methodology, results & discussion section, and conclusion.

## **2 Literature review**

The circular economy has emerged as a promising model for sustainable economic growth, which aims to decouple economic development from resource consumption and environmental degradation (Arruda et.al, 2021). The circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems. In order to promote the implementation of the circular economy, legal and regulatory frameworks play an important role. This literature review aims to provide an overview of the importance of laws and regulations for the circular economy.

### *Circular Economy: Definition and Principles*

The circular economy is an economic model that aims to create value by keeping resources in use for as long as possible, minimizing waste and pollution, and promoting the regeneration of natural systems (Geissdoerfer et.al, 2017). In a circular economy, the concept of waste is eliminated, as all resources are reused, recycled, or regenerated. The circular economy is based on three principles: designing out waste and pollution, keeping products and materials in use, and regenerating natural systems (EMAF, 2013).

### *Importance of Laws for the Circular Economy*

The circular economy requires a legal and regulatory framework that supports the implementation of circular practices. Laws and regulations can promote the efficient use of resources, reduce waste and pollution, and promote the regeneration of natural systems. The legal framework can also provide incentives and support for businesses and consumers to adopt circular practices (Zhu J. et.al, 2019). One of the main functions of the legal framework is to provide clarity and certainty for businesses and investors. The legal framework can provide guidance on the rights and responsibilities of businesses and individuals, and can set standards and requirements for the use of resources and the management of waste. Clear and predictable legal frameworks can reduce transaction costs, facilitate investment, and promote innovation (De Melo et.al, 2022).

The legal framework can also provide incentives for businesses and consumers to adopt circular practices. For example, taxes and charges on the use of non-renewable resources can encourage the use of renewable resources and promote the development of circular supply chains. Subsidies and grants can support the development of circular technologies and infrastructure, and

can promote the adoption of circular practices by businesses and households (Guarnieri et.al, 2023).

In addition, the legal framework can promote transparency and accountability in the management of resources and waste. Laws and regulations can require businesses to report on their resource use and waste generation, and can establish penalties for non-compliance. This can promote the efficient use of resources, reduce waste and pollution, and promote the regeneration of natural systems (Christensen et.al, 2021).

#### *Case Studies*

Several countries have developed legal and regulatory frameworks that support the circular economy. For example, the European Union has adopted several directives and regulations that promote the efficient use of resources and the management of waste. The EU Waste Framework Directive sets out a framework for waste management, including measures to prevent waste generation, promote reuse and recycling, and ensure the safe disposal of waste. The EU Circular Economy Action Plan aims to promote the circular economy and reduce the environmental impact of economic activities.

The Netherlands has also developed a legal framework that supports the circular economy. The Dutch Waste Management Act establishes a hierarchy of waste management, which prioritizes waste prevention, reduction, and reuse over disposal. The act also regulates the collection, transportation, and disposal of waste, and sets standards for the management of hazardous waste. The Netherlands has also developed a circular economy program, which includes measures to promote the efficient use of resources, reduce waste and pollution, and promote the regeneration of natural systems.

### **3 Methodology**

When researching the legal framework of a circular economy in Kazakhstan, several research methods can be appropriate. In this study, a policy analysis method was conducted. This research method involves analyzing policies related to the circular economy in Kazakhstan, such as government strategies, plans, and programs (Vining et.al, 2015). This method can be useful for understanding the policy goals and objectives of the circular economy in Kazakhstan and how they are being implemented.

### **4 Results and Discussion**

Kazakhstan, a country located in Central Asia, has recognized the potential of the circular economy as a way to promote sustainable development and diversify its economy. In recent years, Kazakhstan has implemented a number of policies and initiatives to support the transition to a circular economy. This policy analysis will provide a comprehensive analysis of the policy framework related to the circular economy in

Kazakhstan, including an overview of the policies and initiatives, their strengths and weaknesses, and potential impact.

Kazakhstan's policy framework for the circular economy is grounded in its strategic plan, the "Kazakhstan 2050 Strategy," which sets a goal to become one of the top 30 developed countries in the world by 2050. One of the key pillars of this strategy is the development of a green economy, which includes the circular economy. Kazakhstan has also adopted the Sustainable Development Goals (SDGs) of the United Nations, which include a target to implement the 10-year framework of programs on sustainable consumption and production.

*Policy Overview:*

*National Waste Management Program (2021)*

The National Waste Management Program aims to improve the management of solid waste in Kazakhstan by reducing waste generation, increasing recycling and reuse, and promoting the use of modern waste treatment technologies. The program includes measures to improve waste collection and disposal infrastructure, to support the development of waste sorting and recycling industries, and to increase public awareness of waste management issues.

- **Strengths:** The program provides a comprehensive framework for waste management, with clear goals and targets. It includes measures to promote the circular economy, such as the development of recycling industries and the promotion of waste reduction and reuse.

- **Weaknesses:** The program does not address some important aspects of the circular economy, such as the design of products for circularity and the use of renewable resources. The program also lacks clear mechanisms for monitoring and evaluation.

*Green Economy Concept (2013)*

The Green Economy Concept sets out the principles and priorities of Kazakhstan's green economy development. The concept includes measures to promote sustainable production and consumption, including the adoption of circular economy principles. The concept emphasizes the need to shift from a linear to a circular economy, and to promote the use of renewable resources.

- **Strengths:** The concept provides a broad vision and strategic direction for Kazakhstan's green economy development, including the circular economy. It emphasizes the importance of sustainable production and consumption, and the need to shift away from a linear economy.

- **Weaknesses:** The concept lacks specific targets and actions for implementing circular economy principles. It also does not provide clear mechanisms for monitoring and evaluation.

### *Digital Kazakhstan (2018)*

The Digital Kazakhstan program aims to develop Kazakhstan's digital economy and promote the use of digital technologies in various sectors, including the circular economy. The program includes measures to develop digital platforms for waste management and recycling, to promote the use of smart and connected products, and to improve resource efficiency through the use of data analytics.

- **Strengths:** The program recognizes the importance of digital technologies for promoting the circular economy. It includes measures to develop digital platforms for waste management and recycling, which can improve efficiency and transparency.

- **Weaknesses:** The program does not address some important aspects of the circular economy, such as the design of products for circularity and the use of renewable resources. It also does not provide clear mechanisms for monitoring and evaluation.

### *Laws and other legal documents:*

#### *Environmental Code of the Republic of Kazakhstan (2007)*

The Code provides the legal basis for environmental protection and sets out the rights and obligations of individuals, organizations, and the state in this area. It covers a range of issues related to environmental protection, including the use and conservation of natural resources, environmental impact assessment, waste management, and pollution control.

One of the key features of the Environmental Code is the requirement for environmental impact assessment (EIA) for any activities that may have a significant impact on the environment. The EIA process includes the identification of potential environmental impacts, the assessment of the significance of those impacts, and the development of measures to mitigate any adverse effects. The EIA process is mandatory for activities such as the construction of new industrial facilities, the exploration and extraction of minerals, and the development of infrastructure projects.

The Environmental Code also establishes a framework for the management of hazardous waste. It requires that hazardous waste be identified, classified, and appropriately managed in accordance with the Code's provisions. The Code also sets out the requirements for the transportation, storage, and disposal of hazardous waste and establishes liability for any damage caused by the improper handling of such waste.

In addition to the Environmental Code, there are several other laws and regulations that govern environmental protection in Kazakhstan. These include the Law on Air Protection, the Law on Water Protection, and the Law on Environmental Monitoring. These laws provide additional requirements

and standards for pollution control, water and air quality monitoring, and the protection of natural resources.

Kazakhstan has also ratified several international agreements and conventions related to environmental protection, including the Convention on Biological Diversity, the Kyoto Protocol, and the Paris Agreement. These international agreements require Kazakhstan to take action to address climate change, conserve biodiversity, and reduce greenhouse gas emissions.

Despite the existence of a comprehensive legal framework for environmental protection in Kazakhstan, there are still challenges in implementing and enforcing these laws. Enforcement of environmental regulations can be weak, particularly in the regions where the state capacity is low. There is also a need for increased public awareness and participation in environmental decision-making processes.

## **5 Conclusion**

Kazakhstan has taken significant steps to promote the circular economy and create a legal framework that supports sustainable development and environmental protection. The country's efforts to reduce waste, promote resource efficiency, and encourage the reuse and recycling of materials will contribute to achieving its sustainability goals and ensure a better future for its citizens. The legal framework towards the circular economy in the Republic of Kazakhstan includes the Environmental Code, the Law on Waste, the Law on Environmental Impact Assessment, the Law on Energy Efficiency and Renewable Energy Sources, the National Program for the Transition to a Green Economy, etc. The Environmental Code of the Republic of Kazakhstan sets out the legal basis for environmental protection, including the requirement for environmental impact assessment and the management of hazardous waste. However, there are still challenges in implementing and enforcing environmental regulations, which requires continued efforts from the government and civil society organizations.

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