Chapter 8
Building Resource-Efficient Economy in Azerbaijan

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ABSTRACT

This study analyzes the current state and prospects for the development of the circular economy in Azerbaijan. The findings indicate that the absence of a comprehensive legislative framework hinders the establishment of a closed-loop resource utilization system, while the existing fragmented regulations reduce the effectiveness of implementing environmentally sustainable solutions. A key aspect of transitioning to a circular model is fostering partnerships between enterprises, including the creation of industrial symbioses, where the waste of one company serves as raw material for another. Government support for such initiatives, along with the reform of public procurement systems incorporating environmental criteria, can encourage businesses to adopt secondary resources and energy-efficient technologies. The implementation of a comprehensive approach, the promotion of innovative solutions, and economic support measures will establish a solid foundation for Azerbaijan's successful transition to a circular economy.

DOI: 10.4018/979-8-3373-1117-3.ch008

INTRODUCTION

The circular economy (CE) is a modern resource management model to ensure sustainable use (Rosário et al., 2024). Unlike the traditional linear model, which involves raw material extraction, processing, consumption, and subsequent waste generation, the circular approach focuses on maximizing the product lifecycle through reuse, recycling, and material recovery. The primary goal is to minimize waste and reduce environmental impact while simultaneously improving resource efficiency.

One of the key works that forms the theoretical foundations of the CE is the book Cradle to Cradle: Remaking the Way We Make Things (McDonough, & Braungart, 2002), where the authors first systematically outlined the principles of designing products taking into account future disposal and reuse, contrasting the with the linear economy. This book had a significant impact on the formation of EU policy in the field of sustainable production.

The European Commission, in its official documents, in particular in the Circular Economy Action Plan (Circular economy action plan, 2020), emphasizes that the transition to a circular model could lead to GDP growth of 0.5% by 2030 and the creation of about 700 thousand jobs. Such estimates are based on several empirical studies, including reports by McKinsey & Company (McKinsey & Company, 2024), where it is emphasized that circular strategies could bring the EU economic benefits of up to €1.8 trillion by 2030 through increased resource efficiency.

Research papers in the Journal of Cleaner Production, Resources, Conservation and Recycling, and Ecological Economics regularly publish studies confirming the environmental and economic efficiency of CE. For example, in the paper written by Kirchherr, Reike and Hekkert (Kirchherr et al., 2017) a systematic review of the literature was conducted, in which the authors conclude that CE is not just a waste management strategy, but a fundamental transformation of production and consumption models that requires an interdisciplinary approach.

The American approach to the CE, reflected in the publications of the Ellen MacArthur Foundation (Ellen MacArthur Foundation, 2024), focuses on the role of innovation, digital technologies and design in ensuring a closed loop. The Foundation offers a detailed model for assessing the product life cycle and tools for businesses to transition to the CE. Studies such as Towards the Circular Economy (Ellen MacArthur Foundation, 2016) present quantitative data confirming that circular models improve margins, supply chain sustainability, and brand reputation. Thus, the academic and applied literature of the last decade agrees that the circular economy is not a utopia, but a pragmatic strategy for sustainable economic growth. It requires not only technological solutions, but also institutional changes, political will and a cultural transformation of consumer behavior. It is in the integration of these components that lies its strength and long-term prospects.