


Chapter 6


Economic Resilience and Sectoral Evolution in the Energy Transition: Lessons From Greece, Bulgaria, and Poland

Lefteris Topaloglou

 <https://orcid.org/0000-0003-2024-2157>


University of Western Macedonia, Greece

Despoina Kanteler

 <https://orcid.org/0000-0002-3430-0824>

University of Western Macedonia, Greece

Yiannis Karagiannis

 <https://orcid.org/0009-0000-5410-5295>


University of Western Macedonia, Greece

Dionysios Giannakopoulos

 <https://orcid.org/0000-0002-9318-9660>

Chemical Process and Energy Resources Institute, Greece

Dimitris Kallioras

 <https://orcid.org/0000-0003-3060-3745>

University of Thessaly, Greece

ABSTRACT

This chapter explores the economic impacts of EU just energy transition policies in three phasing-out regions in Greece, Bulgaria and Poland. It specifically focuses

DOI: 10.4018/979-8-3373-1767-0.ch006

on regional specialization, sectoral development and regional competitiveness. Through a comparative regional analysis approach, social and economic indicators that shape the conditions for regional resilience are examined. Emphasis is placed on the transformation of the coal industry, renewable energy and green technology. By integrating economic data analysis and the critical assessment of energy policies, the article explores employment trends and productivity dynamics. The analysis also examines the critical factors shaping regional competitiveness. The trajectory of sectoral development over time shows a differentiation between the regions examined in terms of the speed and effectiveness of adaptation and regional resilience. The findings of the article provide policymakers and researchers with beneficial information for promoting sustainable, equitable and resilient energy transitions at the regional level.

INTRODUCTION

The goal of achieving climate neutrality by 2050 reflects one of the most ambitious environmental and productive transformation targets set by the European Union under the European Green Deal (European Commission, 2019). The Clean Transition Mechanism is the main operational pillar to reach this goal, providing financial and technical assistance to carbon-dependent regions (European Commission, 2020; Baran & Kowalski, 2022). Key challenges associated with these policies should ensure that the transition is just, orderly and inclusive, effectively addressing regional inequalities and enhancing the economic and social resilience of affected regions (McCauley & Heffron, 2018; Szulecki et al., 2020).

This paper focuses on exploring the impact of European energy transition policies on the sectoral shifts within the productive system and on the economic and social resilience of regions undergoing transformation. In particular, the effects of transition policies on the dynamics of income, employment, innovation and competitiveness are investigated. The central research question addressed in this article is the following: To what extent and in what way do equitable energy transition policies affect the sectoral transformation, employment dynamics and economic resilience of transition regions towards a reduced- or zero-emissions model? In this context, we attempt to identify and assess the critical factors that contribute to a successful sectoral transformation that ensures both the social challenges of transitioning to an alternative production model and the economic resilience of these regions (Galgóczi, 2019; Trippl et al., 2020).

The above question is addressed through a comparative analysis of three regions of the European Union that are highly dependent on coal: Western Macedonia (EL53) in Greece, Stara Zagora (BG344) in Bulgaria and Silesia (PL22) in Poland. Western

36 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/economic-resilience-and-sectoral-evolution-in-the-energy-transition/386580

Related Content

An Efficient VBA Spreadsheet Algorithm and Model for the System Optimum Traffic Assignment

Jae-Dong Hong, Yuanchang Xie and Ki-Young Jeong (2012). *International Journal of Applied Industrial Engineering* (pp. 36-52).

www.irma-international.org/article/an-efficient-vba-spreadsheet-algorithm-and-model-for-the-system-optimum-traffic-assignment/93014

Practitioner's View on the Future of Economic Decision-Making in Project Management: A Research Note

Brian J. Galli (2019). *International Journal of Applied Industrial Engineering* (pp. 33-55).

www.irma-international.org/article/practitioners-view-on-the-future-of-economic-decision-making-in-project-management/233848

An Ant Colony Optimization and Hybrid Metaheuristics Algorithm to Solve the Split Delivery Vehicle Routing Problem

Gautham Puttur Rajappa, Joseph H. Wilck and John E. Bell (2016). *International Journal of Applied Industrial Engineering* (pp. 55-73).

www.irma-international.org/article/an-ant-colony-optimization-and-hybrid-metaheuristics-algorithm-to-solve-the-split-delivery-vehicle-routing-problem/159085

A Knowledge Extraction and Design Support System for Supporting Industrial and Product Design

W. B. Lee, W. M. Wang, C. F. Cheung and Z. H. Wu (2017). *International Journal of Applied Industrial Engineering* (pp. 1-18).

www.irma-international.org/article/a-knowledge-extraction-and-design-support-system-for-supporting-industrial-and-product-design/182720

Product Modelling in the Building and Construction Industry: A History and Perspectives

Edwin Dado, Reza Beheshtian and Martinus van de Ruitenbeek (2010). *Handbook of Research on Building Information Modeling and Construction Informatics: Concepts and Technologies* (pp. 104-137).

www.irma-international.org/chapter/product-modelling-building-construction-industry/39469