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CRITICAL MINERALS GOVERNANCE AS A WICKED PROBLEM: A MULTI-VIEW SUSTAINABILITY ASSESSMENT OF NORTH MACEDONIA

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Abstract

This work examines critical mineral governance in North Macedonia as a case study of how small EU-candidate countries are implicated in the geopolitics of energy trade and resource security. North Macedonia, though not a major producer, possesses reserves of copper, zinc, and lithium, making it relevant for EU energy transition strategies. The country faces significant governance challenges such as corruption, transparency deficits, and weak institutional enforcement, that complicate sustainable resource development. Conceptualizing the issue as a “wicked problem,” we argue for adaptive and participatory governance to address competing stakeholder interests and mitigate geopolitical vulnerabilities. The analysis draws on corporate reports, government policy, and international indices, and situates North Macedonia within wider global supply chains. This paper contributes to the emerging research on multi-view sustainability assessment by applying Life Cycle Sustainability Assessment (LCSA) principles to the governance of critical minerals in a transitional economy context.

Key words: critical minerals, governance, Life Cycle Sustainability Assessment (LCSA), North Macedonia, resource curse, wicked problem

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