

## ABSTRACT

### **Transformation of coal regions in Poland: Assessing the consistency between the diagnosis of challenges and planned actions in the context of territorial conditions**

mgr inż. Aleksandra Kozłowska-Woszczycka

The dissertation addresses the issue of coherence in the planning of just transition processes in coal regions in Poland, within the context of the EU's climate commitments aimed at phasing out coal extraction. The analysis focuses on five regions for which the European Commission approved Territorial Just Transition Plans (TJTTPs) in December 2022 – Silesia, Western Małopolska, Eastern Wielkopolska, Bełchatów, and the Wałbrzych subregion – thereby activating financial support from the Just Transition Fund.

The aim of the dissertation is to assess the consistency between the challenges identified in the TJTTPs, the planned operational measures, and the actual socio-economic and environmental-spatial context of each region. The starting point is the assumption that an effective and just transition requires not only the allocation of resources but, above all, an accurate diagnosis of risks and potentials, and the alignment of interventions with local conditions.

The research was structured into three main stages. The first stage involved an analysis of the TJTTPs in terms of the consistency between the identified challenges and the proposed actions. It assessed the internal coherence and completeness of the documents, and identified underrepresented or omitted issues that are nonetheless critical to the success of the transformation process.

The second stage was based on the analysis of 21 quantitative indicators covering socio-economic and environmental-spatial dimensions. This enabled a diagnosis of both risks and development potentials, as well as a comparison of the initial conditions for the transition process, in order to identify discrepancies between the actual situation and the picture presented in the TJTTPs. This analysis also revealed interrelations between selected regional characteristics, illustrating the complexity of territorial conditions and the co-occurrence of multi-dimensional challenges.

The third stage consisted of an in-depth social diagnosis of a selected area based on a spatially-enabled survey. The Wałbrzych subregion was chosen as a case study – the only region where coal mining has already been phased out and which now faces deeply rooted socio-economic and environmental-spatial challenges. The survey combined closed and open-ended questions with the ability to map phenomena, enabling the assessment of various aspects of residents' lives as well as the spatial identification and qualitative evaluation of selected sites. The study also captured local perceptions of changes following mine closures and collected data on degraded, landscape-transformed, hazardous, post-mining-affected, or revitalization-needing areas – along with proposals for their future development. The results were elaborated quantitatively, qualitatively, and cartographically, allowing for the integration of local knowledge with spatial analysis.

The combination of findings from the three stages provided a multifaceted picture of the initial situation in the regions undergoing just transition – at the level of planning documents, statistical-spatial data, and local community perceptions. The analysis made it possible to identify areas requiring a deeper diagnosis, refinement of planned actions, and greater consideration of territorial specificities. The diversity of research perspectives enabled a comprehensive evaluation of the transition process and the identification of challenges arising from inconsistencies within it. These results confirm the need to treat just transition as a process requiring not only careful planning, but also continuous monitoring, verification of assumptions, and adaptation of measures in response to changing conditions and the evolving needs of local communities.

*Aleksandra Kozłowska-Woszczycka*