

DIAGNOSIS OF THE WAŁBRZYCH POST-MINING AREA: PILOT STUDY USING PUBLIC PARTICIPATION

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Extraction of natural resources is usually carried out until the deposit resources are exhausted or further exploitation becomes unprofitable. Long-term mining activity leads to several changes, both environmental and socio-economic, and the challenges that arise during and after the mine closure depend on the factors that conditioned this decommissioning and, on the actions, taken throughout the life cycle of the mine. The International Council on Mining and Metals (ICMM) distinguishes three types of mine closures, considering the reasons that led to them. In addition to planned liquidation, it distinguishes between temporary and sudden closures. Sudden closures present many challenges and expedited actions that were often only in the conceptual planning phase. Due to the factors that led to this closure, some of these actions may not be partially or even fully applicable [1, 2].

The presented research provides an in-depth analysis of the Wałbrzych case of the sudden mine closure and subsequent socio-economic, infrastructural and environmental changes in the surrounding region [3-6]. The diagnosis of the area was made based on a pilot survey conducted among diverse stakeholder groups. As a result, opinions were identified and assessments of social, infrastructural and environmental changes after the closure of mines were obtained. Information was obtained on the areas and facilities requiring revitalization according to the respondents. The obtained results were compared with the revitalization areas designated by Wałbrzych City Hall.

Bibliography

- [1] International Council on Mining and Metals, *Integrated Mine Closure. Good Practice Guide*, 2nd Edition. ICMM, 2019.
- [2] Syahrir R., Wall F., & Diallo P., *Coping with sudden mine closure: The importance of resilient communities and good governance*. The Extractive Industries and Society, 2021.
- [3] Czupryn B., **Rewitalizacja przyszłości Wałbrzycha**. In: Laskowski P. (ed.) *Samorząd terytorialny i rozwój lokalny*, Wyd. Wyższej Szkoły Zarządzania i Przedsiębiorczości, 2016
- [4] Kozłowska-Woszczycka A., **Degradation of urban space as a negative effect of mine closures**. IOP Conference Series: Earth and Environmental Science, 2021.
- [5] Błachowski J., Kopeć A., Milczarek W., & Owczarz K., **Evolution of Secondary Deformations Captured by Satellite Radar Interferometry: Case Study of an Abandoned Coal Basin in SW Poland**. Sustainability, 2019
- [6] Wójcik J., **Antropogeniczne zmiany środowiska przyrodniczego Ziemi (I)**. Wydawnictwo Naukowe PWN.