

Abstract

The doctoral dissertation entitled "Socio-economic consequences of the development of mining in Mongolia" presents the results of research on the mining industry and the social and economic consequences of its expansion since the beginning of the systemic transformation in the early 1990s. The ecological effects of mining strongly affect these spheres. They primarily impact local pastoral communities and ecosystems, where they have led a nomadic lifestyle in harmony with nature and its natural cycles for centuries. Considering that the country's further development will be related to the exploitation of mineral resources, which in Mongolia occur in great diversity and abundance, future challenges related to the restructuring and revitalization of post-mining areas should already be anticipated today.

The dissertation has theoretical and empirical character. The considerations concern the period 1990-2023. The following research methods were used: analysis of the literature on the subject, collection and analysis of statistical data, interviews conducted using the PAPI method with nomads currently living in the ger district near Ulaanbaatar, in-depth interview with the plenipotentiary of the Management Board of the Łódź Voivodeship for the transformation of the Bełchatów region – Maciej Kozakiewicz.

The following research hypotheses were verified in the dissertation:

H1: The exploitation of mineral resources in Mongolia is the cause of the growing ecological crisis, which results in a violation of the principles of ecological and environmental justice.

H2: According to the theoretical concept of North, Walis and Weingast, the struggle for rents related to the functioning of the mining sector in Mongolia leads to a regression of the order of limited access from mature to basic. In other words, in order to introduce solutions beneficial to mining investments postulated by international investors, the Mongolian authorities limit the scope of civil liberties (democracy is regressing) and ineffectively protect the natural environment.

H3: The development of the mining sector in Mongolia threatens the sustainable development of the country and urgently requires correction, in which the experience of (selected) European Union countries may be helpful.

The text of the dissertation is divided into five chapters. The first one presents the general characteristics of Mongolia's natural environment, with a particular focus on the uniqueness and sensitivity of natural ecosystems and the growing pressure resulting from the discovery and extraction of a large number of diverse mineral resources. The second chapter contains a general description of the theory of environmental economics, ecological economics, and economics of

sustainable development. The existing achievements in all these areas provide the basis for the formulation of modern solutions for environmental policy and development policy to protect the interests of current and future generations more effectively. The third chapter introduces the threads typical of institutional economics. Changes in formal institutions during the transformation period are an important subject of research due to the impact of this process on virtually all aspects of the functioning of the socio-economic system, including the shift in the redistribution of rents. The chapter discusses the theory of Douglas C. North, John J. Wallis, and Barry R. Weingast (NWW) on social orders. The fourth chapter presents data illustrating the importance of the mining sector in the development of Mongolia after 1990, as well as an assessment of the effects of the expansion of mining through the prism of institutional economics, with particular emphasis on the theories of North, Wallis, and Weingast. According to the theory concerning the types of social orders, the struggle for rents related to the functioning of the mining sector in Mongolia has an impact, under the Limited Access Order (LAO), on the evolution of formal institutions from basic through mature back to basic LAO. The fifth chapter, based on the example of the Erdenet mining region, illustrates the current and future challenges related to the functioning of such areas in the context of sustainable development. Next, solutions related to the development of post-mining areas in Germany and Poland were described. The areas where surface mining was carried out, which dominate in Mongolia, were considered. The existing legal solutions in this area were also analyzed.

The conducted research gave grounds to verify the hypotheses. Hypothesis H1 was partially verified positively. The growing ecological crisis is evidenced by numbers illustrating negative changes in the natural environment. The area degraded by mining expanded from 5,800 ha in 2001 to 37,100 ha in 2023. However, environmental degradation will be caused not only by mining, but also by pastoralism, in which a significant increase in the animal population is observed, leading to the tragedy of the commons.

The hypothesis H2 was positively verified. As a result of political and economic changes, the dominant coalition, associating, under the theory of NWW, the most important organizations and individuals, initially expanded, which indicated the maturation of the order of limited access. However, this process slowed down significantly, and there was even a certain regression when mining income became an important source of rents. In Mongolia, the share of raw material rents in GDP has been high and exceeded 20% in peak periods. However, the rapid development of mining did not translate into a noticeable increase in social welfare, while the expansion of this sector significantly contributed to the degradation of the environment. It is a fact that the introduction by the Mongolian authorities of solutions favorable to mining

investments proposed by foreign investors results in the restriction of civil liberties, regression of democracy and the lack of effective protection of the natural environment, which generates problems regarding respect for environmental and ecological justice.

The hypothesis H3 was also positively verified. The currently observed dynamic development of the mining sector will result in large-scale problems with the reclamation and restructuring of post-mining regions in the perspective of several decades, which will be a challenge in sustainable development. The analysis of examples of activities from selected European Union countries made it possible to formulate recommendations, especially in the field of responsibility for rehabilitating areas degraded due to the extraction and transport of raw materials.

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