

SERBIAN MINING AT THE CROSSROADS: SOCIAL ACCEPTANCE OF MINING PROJECTS

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Abstract

Given the growing resistance to new mining projects in Serbia, driven by environmental movements, local communities, and non-governmental organizations, there is an urgent need for a substantial overhaul of state policy regarding critical mineral resources. Erosion of trust among the key stakeholders - namely, the State, Investors, and Local Communities - has led to heightened skepticism about the ability of both investors and the government to protect local interests and the environment. Compounding this issue is the influx of foreign workers, which highlights deficiencies in the development of the domestic workforce.

This study seeks to review the literature on mining conflicts and sustainable development, with a particular emphasis on the social acceptability of mining projects. Employing the literature review methodology, this research analyzes scientific articles, books, and research reports to elucidate how mining conflicts can obstruct sustainable development through social instability, environmental damage, and investment barriers. The results indicate that resolving these conflicts necessitates a novel approach - Holistic Mining Framework - that involves all stakeholders, prioritizes good governance, promotes responsible environmental management, empowers local communities, and establishes effective dispute resolution mechanisms. This approach aims to provide actionable recommendations for Serbia.

Keywords: mining project, social acceptability, Fourth Way, Holistic Mining Framework

1. INTRODUCTION

In light of the increasing resistance to the establishment of new mining operations in Serbia, both from environmental movements and local communities as well as non-governmental organizations that perceive this as a serious threat, a radical shift in state policy concerning mineral resources of significance to the Republic of Serbia may be necessary.

It is evident that the level of trust among the main stakeholders in mining in Serbia has nearly vanished, often exhibiting negative connotations. Within the triangle of State - Investor - Local Community, the dynamics have significantly changed. As the alliance between the State and the Investor strengthens, so too does the distrust among the local populace. Not only is there a lack of faith in the Investors, but there is also skepticism regarding the State's ability to safeguard their interests and the environmental conditions in the areas where mining operations are currently active or proposed.



Merely collecting fees is insufficient to stimulate the necessary level of investment that would be both visible and effective, demonstrating clear benefits at both local and national levels. The influx of foreign investments brings with it foreign workers, occupying positions that could potentially be filled by Serbian workers. The excuse of a lack of qualified labor no longer holds, as there has been no effort to develop a new, qualified, and younger workforce. While it is true that many skilled and experienced workers have left for higher-paying opportunities abroad, there is also a noticeable lag in the development of new workers through quality education. Interest among younger individuals is minimal, and motivation has diminished despite the potential for mining development that the media frequently highlights.

Efforts to influence Investors to retain mining products within Serbia and to generate new processing capacities, possibly through amendments to legal regulations (such as the Mining and Geological Research Law) and the introduction of Investment Agreements, currently seem impractical. This, too, is a fact.

The aim of this research is to analyze the social acceptability of mining projects globally, investigate the attitudes of local communities, engage stakeholders, and assess socio-economic and cultural impacts. The goal is to provide relevant guidelines that could be applied in Serbia.

2. RESEARCH

Mining projects frequently provoke controversy and resistance within local communities and environmental movements, underscoring the need to re-evaluate their purpose. The question of the profitability of mineral resources is typically limited to a commercial perspective, which focuses solely on the financial returns from exploration, extraction, processing, and sales of mineral resources or the products derived from them. In this context, profitability is assessed as the difference between production costs and market sales prices.

Companies often initiate mining projects with the expectation of financial gain. However, issues arise when the emphasis is placed solely on profit, disregarding the potential negative ecological or social consequences. This can lead to justified resistance from local communities and environmental movements advocating for the protection of nature, preservation of the local environment, and the well-being of their lives [1].

For a project to be deemed nationally profitable, it must provide long-term economic benefits for the country, offer social welfare to the local community and its residents, and ensure environmental protection. In such cases, national profitability is evaluated based on the long-term interests of the country rather than immediate financial returns [2-4]. The national profitability of a mining project encompasses the assessment of economic, social, ecological, and strategic factors considered when making decisions about the implementation of a mining project at the national level [5].

In addition to these factors, the social acceptability of the project must be considered. This involves analyzing the attitudes of the local community, civil society, and other relevant stakeholders towards the project. Ensuring that the interests and needs of the local community are incorporated into the planning and execution of the project is crucial. However, it is important to note that each country has its specific contexts and priorities, leading to varying approaches.

2.1 Assessment of the Social Acceptability of Mining Projects

In global practice, numerous examples and solutions have proven successful in achieving social acceptability for mining projects. Transparent communication is identified as a crucial factor in the successful implementation of such projects. The communication between mining companies, local communities, and other stakeholders should be open, continuous, and timely. This approach facilitates the exchange of information, fosters trust, addresses and understands the needs and concerns of the local community, and allows for responsive adjustments to project plans in accordance with their interests [6].

Establishing partnerships with local communities plays a pivotal role in achieving social acceptability. This involves engaging local leaders, organizations, and institutions in the decision-making process. Such partnerships offer opportunities to collaboratively shape project activities, identify community needs, and direct investments and resources toward initiatives that contribute to community development (Mining, Minerals, and Sustainable Development MMSD, 2002).

The analysis of socioeconomic and cultural impacts is essential in assessing the social acceptability of a project. Presenting relevant data and examples from existing studies can provide insights into the potential impacts of the project on the local community.

2.2 Practices, Trends and Programs

The socioeconomic impacts of mining projects can be substantial, both positively and negatively. For instance, a project may have the potential to create job opportunities and stimulate economic development within the local community. Additionally, it may lead to increased revenue for the community through taxes and fees paid to the government. However, negative impacts may include displacement of local populations, loss of traditional sources of income, increased cost of living, and changes in the social structure of the community.

Cultural impacts of mining projects are also critical for evaluating social acceptability. Mining projects can significantly affect cultural heritage, traditions, and the identity of the local community. Potential consequences include changes in lifestyles, loss of traditional occupations, and impacts on cultural events and customs.

The analysis of socioeconomic and cultural impacts of mining projects is supported by relevant sources from global practices. Studies on the assessment of socioeconomic and ecological impacts of mining projects provide insights into the measures taken to evaluate social acceptability. These studies analyze various frameworks for assessing social impacts and compare existing approaches. MMSD (2002) offers an overview of sustainable development in mining and the importance of stakeholder communication [6-8]. The World Bank (2019) provides information on trends and opportunities in sustainable mining. The International Council on Mining and Metals (ICMM) established principles for sustainable development for mining companies in 2003, and in April 2018, launched a global consultation to enhance these principles. The aim is to strengthen requirements in areas such as labor rights, resettlement, gender equality, and other social and environmental issues (ICMM's Mining Principles, June 2022). These sources contribute to the understanding of factors for analyzing the socioeconomic and cultural impacts of mining projects and provide guidelines for social acceptability.



Sustainable development and economic contribution are key aspects of the social acceptability of mining projects. Projects should be oriented towards sustainable development, which entails minimizing negative ecological impacts and maximizing positive socioeconomic impacts. This may include supporting local industries, small and medium-sized enterprises, infrastructure development, education and training of the local population, and economic diversification (World Bank, 2019).

The Serbia Energy Business Magazine (March 19, 2019) provides an overview of the situation in Serbia and the challenges and benefits associated with mining projects. In recent years, local communities in Serbia have faced pressure from interest groups to accept mining projects. The lack of information about the impacts of these projects on the environment and public health makes it difficult for citizens to make informed decisions about the future, leading to resistance to such projects.

Statistical indicators can offer insights into the implementation of mining projects. Some potential indicators include: employment rates and qualifications of the local population, tax and fee revenues, water and air pollution, and instances of environmental regulation violations.

It is necessary to improve dialogue with stakeholders, including local communities, non-governmental organizations, mining companies, and government institutions, to ensure a thorough analysis of the socioeconomic and cultural impacts of mining projects and to find optimal solutions that address the diverse requirements and viewpoints of all involved parties.

2.3 Conflicts

According to a report by the International Council on Mining and Metals (ICMM, 2015), conflicts between mining companies and local communities have dramatically increased over the past two decades. A significant rise in the number of conflicts in mining, from 10 conflicts recorded in 2002 to 104 conflicts in 2015, with numbers continuing to rise. Today, we can imagine what that number would be. These figures clearly indicate a growing number of incidents related to mining projects and conflicts of interest between companies and local communities [10, 15].

In examining these conflicts, mining companies are increasingly aware of the negative consequences that may arise from conflicts with communities, which can significantly affect all aspects of their operations (Figure 1). ICMM notes that the causes of conflicts in mining, such as protests or the use of force, and the underlying structural issues at mining sites require thorough analysis.

These conflicts often stem from conflicting goals between different actors, where mining companies aim to increase revenue and profitability, while local communities frequently strive to preserve natural resources and protect cultural heritage [11]. Mining activities frequently lead to serious environmental issues. Studies have shown that they can negatively impact the environment, including contamination of water sources, destruction of biodiversity, and alteration of landscapes [12, 13].

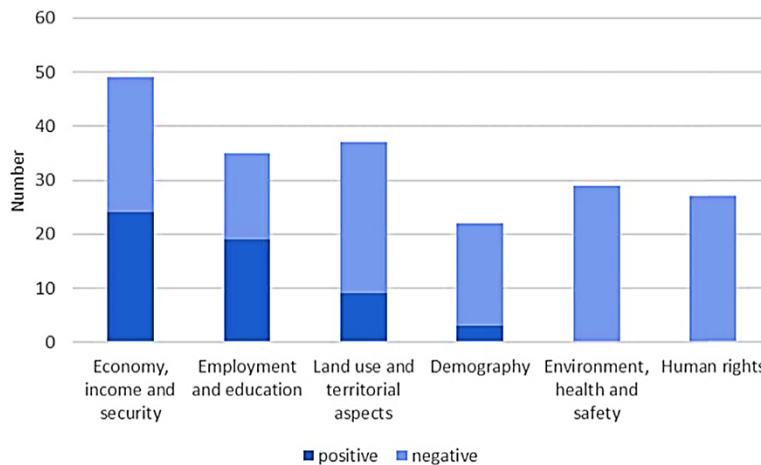


Figure 1. Frequency of Positive and Negative Factors in Specific Studies by Key Impact Aspects. Source: Resources Policy 57 (2018) 98–111

In addition to ecological issues, mining operations can have serious socio-economic consequences. Communities rarely benefit from mining activities and often face challenges resulting from them. The negative impacts on agricultural activities, social cohesion, cultural beliefs, and the uneven distribution of income and risks are among the problems associated with mining projects [14]. Figure 2 illustrates the results from studies showing the occurrence of these impacts and their geographical distribution.

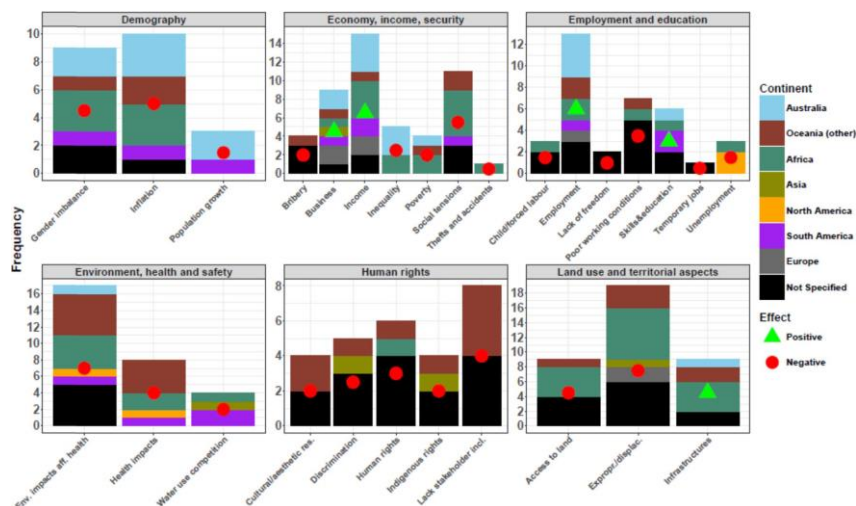


Figure 2. Illustrative Results Showing the Occurrence and Geographical Distribution of Impacts in Selected Studies. Source: Resources Policy 57 (2018) 98–111

It is important to note that mining companies typically reap a substantial portion of the economic benefits from their operations, while local communities seldom receive a fair share of the gains. In many cases, communities even suffer negative consequences



due to mining. For example, water is a crucial resource for mining operations but is also vital for local communities. Water pollution and depletion of water resources are common outcomes of mining activities [15-18]. These issues directly affect the local population and can significantly impact the quality of life and health of the community.

Understanding the conflicts and challenges arising from mining projects is essential for achieving social acceptance of these projects. Effective mechanisms for dialogue and collaboration among all stakeholders must be established to achieve sustainable development and mitigate the negative impacts of mining on the environment, communities, and society.

2.4 Code of Conduct

The "Code of Conduct" serves as the foundation for initiatives like "The Way We Work," or "Re-imagining mining to improve people's lives" launched by some of the world's largest mining companies. These companies often introduce their own specific programs under different names to promote sustainable and socially responsible mining practices. While the exact initiatives and practices may differ based on the project specifics and the countries in which they operate, they typically focus on responsible environmental management, respect for human rights, and fostering social and economic development in local communities.

For instance, some companies have implemented policies related to zero tolerance for corruption and deficiencies in environmental quality maintenance, as well as support for local employment and infrastructure development. These companies also provide funding for education and training of the local population to enable long-term community development.

In practice, some of these initiatives have yielded positive results, while others are still in the process of implementation and evaluation. Nonetheless, these initiatives and practices are crucial elements in mining companies' efforts to achieve sustainable and socially responsible development and to preserve and improve the quality of life in the local communities where they operate.

Unfortunately, there have been cases of misuse concerning the implementation of social responsibility principles in mining. Some companies have been criticized for "greenwashing" - using marketing tactics to present themselves as socially responsible and environmentally conscious while failing to take adequate environmental protection measures and considering the interests of local communities [19]. Additionally, there are instances where companies inadequately report on their social responsibility performance, making it difficult to monitor their activities and potentially allowing them to evade accountability for negative environmental and social impacts [20].

3. RESULTS AND DISCUSSION

Numerous international case studies and implemented strategies have highlighted the effectiveness of achieving social acceptability in mining projects. A critical factor in the successful execution of these projects lies in maintaining transparent communication among mining companies, local communities, and other relevant stakeholders. Such communication should be open, continuous, and timely to facilitate the effective exchange of information, foster trust, and address the needs and concerns of local communities. Establishing



partnerships with local communities is also vital in gaining social acceptability, as it enables collaborative shaping of project activities and directs investments toward initiatives that contribute to community development [21-24].

Sustainable development and economic contribution are fundamental components of socially acceptable mining projects. The success of these initiatives hinges on their capacity to promote sustainable development by minimizing adverse environmental impacts while maximizing positive socioeconomic outcomes [25].

In Serbia, two of the most significant mining endeavors are the copper exploitation in Bor and Majdanpek, and the lignite mining in the Kolubara basin. However, these projects also face considerable challenges. Copper mining, for instance, grapples with issues related to wastewater management, environmental protection, and occupational safety and health. These challenges underscore the necessity for effective management of environmental impacts and alignment with sustainability and safety standards. Conversely, the predominant challenges in the Kolubara lignite basin, Serbia's largest coal producer, include conflicts between mining activities and agriculture, population displacement, and impacts on infrastructure, water management, and other facilities within the mining region [9].

Additionally, there is a pressing need to bolster the local economy, which could provide essential support to mining projects when necessary, and to diversify the economy to reduce reliance on mining. This strategy may involve fostering the development of small and medium-sized enterprises across various industries, as well as strengthening other sectors such as tourism, agriculture, energy, and services. Emphasizing the development of small and medium-sized enterprises, alongside education and training of the population, can lay the groundwork for sustainable economic growth.

Achieving social acceptability in mining projects requires a comprehensive approach that encompasses all relevant dimensions, including economic, environmental, cultural, and community aspects. The adoption of best global practices, tailored to local conditions, can significantly contribute to the social acceptability of mining projects in Serbia, particularly in potential endeavors involving the extraction of lithium, gold, and other critical resources.

Traditional approaches to mining are generally categorized into three models:

The "Extractive Model" is characterized by rapid and aggressive resource extraction, often neglecting environmental impacts and community well-being, leading to ecological crises and social conflicts.

The "Profit-Driven Model" prioritizes profit above all else, with minimal regulation and oversight, resulting in irresponsible corporate behavior, social injustice, and unsustainable resource depletion.

The "Compromise Regulation Model," while involving the existence of laws and regulations, suffers from weak enforcement, resulting in a loss of trust in institutions and fragmented approaches that fail to achieve desired outcomes.

These models, with their significant shortcomings, highlight the need for a "fourth way" - a sustainable, transparent, and inclusive mining framework that balances economic benefits with social and environmental responsibilities.

In the business context, it is crucial to demonstrate that the implementation of this "Fourth Way" can aid organizations in adopting a holistic approach that encompasses the entire organizational environment. This approach includes an understanding of economic efficiency, social responsibility, and environmental sustainability, as well as the dynamics of relationships with other organizations, clients, and the broader society. The adoption of the



Fourth Way can enable organizations to achieve their goals and mission in a manner that supports social well-being and sustainability.

The concept of the "Fourth Way" in mining can be more accurately described as the "Holistic Mining Framework". This term encapsulates the core principles of sustainability and inclusivity that are central to this approach. The model is predicated on balancing economic benefits with social and environmental responsibilities, with a focus on transparency, participatory planning, equitable distribution of benefits, strengthening regulatory frameworks, and leveraging innovations and technologies to minimize environmental impacts.

It can be argued that the Holistic Mining Framework represents an expanded and more deeply integrated version of the Environmental, Social, and Governance (ESG) model. It not only adheres to ESG criteria but also integrates them into all aspects of operations, ensuring sustainability, equity, and long-term benefits for all stakeholders. The Holistic Framework offers a comprehensive approach that may surpass standard ESG criteria due to its deeper focus on integration and continuous improvement.

4. CONCLUSION

The primary goal is to balance economic growth, social well-being, and environmental protection. Understanding the socioeconomic and cultural impacts of mining projects is essential for effective decision-making and developing strategies to mitigate negative effects while improving social acceptability. Social acceptability involves not only economic profitability but also the well-being of local communities, their rights, and the preservation of cultural heritage. Ecological sustainability is crucial for the long-term success of mining projects.

Involving all stakeholders - local communities, NGOs, and authorities is vital for enhancing social acceptability. Transparent communication, effective consultations, and sustainable mining practices are key to achieving this. Further research is needed to adapt mining practices to meet social and environmental requirements and to keep up with global trends and best practices.

The "Holistic Mining Framework" offers a promising approach by integrating sustainability and inclusivity principles. This framework balances economic benefits with social and environmental responsibilities, emphasizing stakeholder engagement, participatory planning, and innovative practices. Adopting this framework can help address the challenges of modern mining and align projects with global standards, potentially reducing conflicts and promoting long-term benefits.

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