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## Preliminary Needs Assessment and CSR–Zakat Strategy during the Exploration Phase of the Pongkeru Nickel Project for Sustainable and Social Legitimacy

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### Kata Kunci :

Tanggung jawab sosial perusahaan, penilaian kebutuhan awal, zakat, keberlanjutan, legitimasi sosial

### Abstrak

Industri pertambangan, khususnya sektor nikel memberikan kontribusi signifikan terhadap pembangunan ekonomi Indonesia, tetapi juga menimbulkan tantangan sosial dan lingkungan. Tanggung jawab sosial perusahaan (CSR) banyak digunakan untuk mengatasi dampak-dampak tersebut, namun efektivitasnya masih terbatas jika diimplementasikan secara reaktif. Studi ini bertujuan untuk memetakan kebutuhan sosial-ekonomi masyarakat di wilayah pertambangan Pongkeru dan merumuskan kerangka kerja CSR-zakat strategis selama fase eksplorasi sebagai landasan keberlanjutan jangka panjang dan legitimasi sosial. Pendekatan kualitatif deskriptif digunakan dengan menggunakan observasi lapangan, wawancara semi-terstruktur, diskusi kelompok fokus, dan analisis dokumen. Data dianalisis melalui analisis tematik dan kerangka kerja SWOT untuk mengidentifikasi kerentanan struktural dan mengembangkan peta jalan CSR-zakat strategis. Temuan menunjukkan bahwa masyarakat setempat menghadapi tantangan struktural, termasuk ketergantungan pada pertanian dan usaha mikro, akses terbatas terhadap pengembangan keterampilan, dan paparan risiko lingkungan. Intervensi CSR tahap awal yang didasarkan pada penilaian kebutuhan sistematis dan terintegrasi dengan zakat secara signifikan meningkatkan keberlanjutan sosial, ekonomi, dan lingkungan. Studi ini menegaskan bahwa CSR yang dirancang selama fase eksplorasi menawarkan peluang strategis untuk mencegah konflik sosial, memperkuat kepercayaan masyarakat, dan membangun kemitraan jangka panjang, sementara CSR konvensional saja masih belum cukup. Studi ini menyiratkan bahwa model hibrida CSR–zakat yang selaras dengan Maqasid al-Shariah menyediakan kerangka tata kelola yang komprehensif dan akuntabel yang menggabungkan pengembangan tenaga kerja, pemberdayaan

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UMKM, perlindungan sosial, dan pengelolaan lingkungan. Kerangka kerja ini memberikan kontribusi teoritis pada literatur pertambangan CSR dan menawarkan panduan praktis untuk merancang strategi CSR yang inklusif, preventif, dan berkelanjutan.

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**Keywords :**

*Corporate Social Responsibility, Preliminary Needs Assessment, Zakat, Sustainability, Social Legitimacy*

**Abstract**

*The mining industry, particularly the nickel sector, contributes significantly to Indonesia's economic development but also generates social and environmental challenges. Corporate social responsibility (CSR) is widely used to address these impacts, yet its effectiveness remains limited when implemented in a reactive manner. This study aims to map the socio-economic needs of communities in the Pongkeru mining area and to formulate a strategic CSR–zakat framework during the exploration phase as a foundation for long-term sustainability and social legitimacy. A descriptive qualitative approach was employed using field observations, semi-structured interviews, focus group discussions, and document analysis. Data were analyzed through thematic analysis and SWOT frameworks to identify structural vulnerabilities and develop a strategic CSR–zakat roadmap. The findings reveal that local communities face structural challenges, including dependence on agriculture and micro-enterprises, limited access to skills development, and exposure to environmental risks. Early-stage CSR interventions grounded in systematic needs assessment and integrated with zakat significantly enhance social, economic, and environmental sustainability. The study confirms that CSR designed during the exploration phase offers a strategic opportunity to prevent social conflict, strengthen community trust, and build long-term partnerships, while conventional CSR alone remains insufficient. The study implies that a hybrid CSR–zakat model aligned with Maqasid al-Shariah provides a comprehensive and accountable governance framework combining workforce development, MSME empowerment, social protection, and environmental stewardship. This framework contributes theoretically to mining CSR literature and offers practical guidance for designing inclusive, preventive, and sustainable CSR strategies.*



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## INTRODUCTION

The mining industry, particularly nickel mining, has wide-ranging social, economic, and environmental implications in areas of operation. In Indonesia, the sector is regarded as a key driver of national economic growth through export expansion, job creation, and infrastructure development (World Bank, 2020). However, alongside these benefits, mining activities often generate social risks, including land conflicts, unequal benefit distribution, environmental degradation, and

community vulnerability (Owen & Kemp, 2019).

In response to these challenges, corporate social responsibility (CSR) has emerged as a central mechanism through which mining companies manage social impacts and foster community relations. Previous studies demonstrate that well-designed CSR programs contribute to improved community welfare, strengthened public trust, and enhanced social license to operate (SLO) (Boutilier & Thomson, 2016; Franks et al., 2014). In Indonesia, CSR is positioned not only as a voluntary corporate initiative but also as a legal and institutional obligation aligned with national development priorities (Rahmawati & Dianita, 2021).

Empirical evidence confirms that CSR positively influences community resilience in mining regions. Zainuddin et al. (2020) found that CSR initiatives in the nickel mining sector in Southeast Sulawesi enhanced collective capacities and adaptive abilities among local communities. Similar findings were reported by Suharto et al. (2019), who emphasized that community development–based CSR strengthens social cohesion and reduces the likelihood of horizontal conflicts in extractive regions.

Despite these contributions, CSR practices in the mining sector continue to face significant criticism. Several studies highlight that CSR programs are often symbolic, unevenly distributed, and insufficiently aligned with the needs of marginalized groups (Kemp et al., 2016; Muflih et al., 2025). Moreover, CSR initiatives are frequently designed through top-down approaches, which may limit community participation and foster dependency rather than empowerment (Dashwood, 2014).

In Muslim-majority contexts, the integration of Islamic social finance instruments—particularly zakat—into CSR frameworks has gained attention as a culturally grounded and ethically robust alternative. Zakat possesses strong social legitimacy, redistributive capacity, and normative foundations for poverty alleviation and socio-economic empowerment (Kahf, 2015; Obaidullah & Khan, 2019). Consequently, zakat offers significant potential to enhance CSR effectiveness, especially in communities where religious values shape social trust and institutional legitimacy.

Recent studies indicate that corporate zakat integrated within CSR strategies can improve both social outcomes and corporate performance when managed strategically and transparently (Hasanudin et al., 2023; Huda et al., 2020). Furthermore, productive zakat models have proven effective as instruments for economic empowerment, particularly in supporting micro-enterprises, skills development, and household economic resilience (Mamun & Sudoto, 2024; Rahman & Ahmad, 2021).

However, most existing studies on CSR–zakat integration remain normative or confined to non-extractive sectors, such as Islamic banking and philanthropic institutions (Ali et al., 2018; Ascarya et al., 2021). Empirical research on the application of hybrid CSR–zakat models in the mining sector—especially during the pre-operational exploration phase—remains limited. Yet, this phase is strategically critical for building social relations, anticipating risks, and designing sustainable development interventions (World Bank, 2020; Hilson, 2012).

Additionally, the majority of mining CSR research focuses on the production and post-closure stages, with limited attention to CSR design based on community needs during the exploration phase (Owen & Kemp, 2019; Kemp et al., 2016). This gap highlights the absence of preventive, participatory, and context-sensitive CSR models that are established before social and environmental impacts intensify.

Addressing these gaps, this study introduces a novel approach by developing a CSR framework grounded in a preliminary needs assessment and integrated with zakat as a strategic instrument for economic empowerment and social legitimacy in the mining sector. This approach not only aligns with ESG and SLO principles but also incorporates the Maqasid al-Shariah framework to ensure that CSR interventions promote justice, welfare, and sustainability (Huda et al., 2020; Obaidullah & Khan, 2019).

Accordingly, this research aims to map the socio-economic needs of Pongkeru communities and formulate a strategic CSR–zakat direction during the exploration phase of the nickel project as a foundation for long-term sustainability and social legitimacy planning. Theoretically, this study contributes to mining CSR literature by advancing an integrated Islamic social finance perspective. Practically, it offers policy-relevant guidance for mining companies, local governments, and zakat institutions in developing equitable, inclusive, and sustainable community development models.

## **METHODS**

This study adopts a descriptive qualitative approach with a field-based research design to gain an in-depth understanding of the socio-economic conditions of communities surrounding the Pongkeru area and to formulate a strategic CSR–zakat direction grounded in actual community needs. This approach is particularly appropriate for capturing social dynamics, stakeholder perceptions, and contextual factors that cannot be adequately measured through quantitative methods.

Data were collected using several complementary techniques. First, field observations were conducted to obtain contextual insights into local social structures, livelihood patterns, social relations, and community vulnerabilities and assets. Second, semi-structured interviews were carried out with key stakeholders, including community leaders, local government officials, and company management and CSR personnel, to explore their perspectives, expectations, and challenges related to CSR implementation and community empowerment. Third, focus group discussions (FGDs) were held with both formal and informal community groups—such as farmers, workers, micro-entrepreneurs, and youth—to identify priority needs, collective aspirations, and potential forms of community participation in CSR programs. Fourth, document analysis was undertaken of corporate CSR policies, internal reports of PT Pongkeru Mineral Utama, and relevant academic literature on CSR and zakat to strengthen the analytical framework and support data triangulation.

Data analysis proceeded through several stages. First, qualitative thematic analysis was applied to identify patterns, categories, and core themes reflecting

community needs, empowerment priorities, and perceptions of corporate engagement. Second, a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis was employed to formulate a strategic CSR–zakat roadmap that accounts for internal organizational capacities, external community conditions, collaboration opportunities, and potential social and environmental risks. The analytical process was iterative and reflective, ensuring the consistency, validity, and policy relevance of the study’s findings.

## **RESULT AND DISCUSSION**

### **Baseline Socio-Economic Conditions of the Community**

The findings indicate that the Pongkeru community remains predominantly dependent on agriculture and small-scale microenterprises as its main sources of livelihood. Most households rely on subsistence or semi-commercial farming, complemented by informal trade and home-based enterprises. This economic structure limits income stability and constrains the community’s capacity to absorb economic shocks, particularly those associated with environmental change or fluctuations in commodity prices.

In addition to livelihood dependence, access to technical training, vocational education, and skills certification remains limited. Educational attainment is generally low, and opportunities for structured workforce development are scarce. As a result, local labor readiness for employment in mining and related value chains remains weak, increasing the likelihood of labor in-migration.

Environmental vulnerability further compounds these socio-economic challenges. Community members expressed concerns regarding potential land degradation, water resource disruption, and ecosystem changes associated with mining activities. Such risks threaten agricultural productivity and household welfare, reinforcing the importance of anticipatory social and environmental safeguards during the exploration phase.

These baseline conditions underscore the urgency of adopting empowerment strategies that go beyond short-term assistance. Rather than relying on compensatory or philanthropic approaches, interventions must focus on enhancing productive capacities, strengthening human capital, and fostering diversified livelihood pathways. This aligns with evidence that sustainable community development in extractive regions requires systematic investments in education, skills, and institutional capacity (Zainuddin et al., 2020).

Moreover, the findings highlight the presence of latent social capital within the community, including strong kinship networks, informal cooperation mechanisms, and collective problem-solving practices. These assets provide a foundation for participatory development and co-created CSR initiatives. Leveraging such social capital can enhance program legitimacy, effectiveness, and long-term sustainability (Anugerah & Sisdianto, 2025).

## **CSR–Zakat Strategy as an Empowerment Mechanism**

CSR initiatives during the exploration phase must be strategically designed to address structural community vulnerabilities rather than functioning as ad hoc or symbolic programs. Without a needs-based and participatory orientation, CSR risks reinforcing dependency, failing to mitigate social risks, and undermining corporate legitimacy. Therefore, a shift toward developmental CSR is essential.

Empirical studies in the Indonesian mining sector demonstrate that strategically aligned CSR strengthens company–community relationships and contributes to long-term welfare outcomes (Anugerah & Sisdiyanto, 2025). CSR programs that prioritize education, skills development, health access, and enterprise support are more likely to generate sustainable socio-economic impacts than those centered on short-term charity or infrastructure provision alone.

The integration of zakat into the CSR framework extends corporate social engagement beyond conventional philanthropy toward a redistributive and transformative development mechanism. Zakat introduces a normative and ethical dimension grounded in Islamic social finance, emphasizing justice, equity, and social responsibility. When institutionalized, zakat enhances corporate moral legitimacy and strengthens community trust.

Recent studies confirm that corporate zakat can be strategically embedded within CSR systems to generate direct and measurable social outcomes, particularly through *mustahiq*-based targeting, transparent governance, and accountability mechanisms (Hasanudin et al., 2023; Ardianto, 2026). This integration ensures that resources reach the most vulnerable groups while maintaining compliance with both corporate governance standards and Islamic ethical principles.

Furthermore, CSR–zakat integration fosters community participation by aligning corporate initiatives with local religious and cultural values. This cultural embeddedness increases program acceptance, reduces resistance to corporate activities, and enhances social cohesion. Consequently, CSR–zakat becomes not merely a financial instrument but a socially legitimized platform for inclusive development and shared value creation.

### **The Hybrid CSR–Zakat Model**

The proposed hybrid CSR–zakat model integrates conventional CSR instruments with productive zakat mechanisms to address both immediate welfare needs and long-term economic empowerment. This model is designed to operate across multiple time horizons, combining short-term social protection with medium- and long-term capacity-building interventions.

At the core of the model is the prioritization of local workforce development. Training programs, vocational education, certification schemes, and on-the-job learning pathways are supported through CSR funds and zakat allocations. This approach enhances labor market inclusion, reduces dependency on external labor, and strengthens community participation in the mining value chain.

In parallel, the model emphasizes the development of productive micro, small, and medium enterprises (MSMEs). Zakat funds are directed toward working capital provision, business incubation, and entrepreneurship mentoring, while CSR supports market access, value chain integration, and institutional strengthening. This dual mechanism enables MSMEs to transition from subsistence-based activities to scalable and competitive enterprises.

The hybrid model also incorporates community capacity-building for economic adaptation. Programs focus on financial literacy, cooperative development, digital skills, and resource management, enabling communities to navigate economic transitions associated with mining activities. Such interventions reduce vulnerability to economic displacement and enhance long-term resilience.

This model aligns with empirical findings that productive zakat contributes significantly to poverty reduction, income diversification, and sustainable livelihoods when managed strategically and institutionally (Hasanudin et al., 2023; Mamun & Sudoto, 2024). Moreover, the hybrid framework enhances program coherence, reduces fragmentation across social initiatives, and improves accountability by aligning CSR reporting with zakat governance standards.

### **Risk Anticipation and Community Resilience**

The integration of CSR with zakat enhances community resilience by enabling anticipatory and adaptive responses to socio-economic and environmental risks. Rather than reacting to crises after they occur, this integrated framework emphasizes proactive risk management and resilience-building from the exploration phase onward.

Social risks, including labor displacement, social conflict, and inequality, are addressed through inclusive employment strategies, participatory decision-making processes, and equitable resource distribution mechanisms. By prioritizing vulnerable groups and marginalized households, CSR–zakat integration reduces social fragmentation and fosters social cohesion.

Environmental risks are mitigated through community-based environmental monitoring, livelihood diversification, and sustainable resource management programs supported by CSR and zakat funds. These initiatives help communities adapt to ecological changes while preserving environmental assets essential for long-term well-being.

The use of Maqasid al-Shariah as an evaluative framework strengthens the ethical and developmental coherence of CSR–zakat programs. By aligning interventions with the protection of wealth (hifz al-mal), life (hifz al-nafs), intellect (hifz al-'aql), lineage (hifz al-nasl), and faith (hifz al-din), the framework ensures that economic, social, and environmental objectives are pursued in an integrated and balanced manner.

Previous research suggests that CSR initiatives grounded in ethical, participatory, and resilience-oriented frameworks generate more durable social outcomes and enhance adaptive community capacity in extractive contexts

(Zainuddin et al., 2020; Hasanudin et al., 2023; Mamun & Sudoto, 2024). Accordingly, the hybrid CSR–zakat model offers a robust and context-sensitive pathway toward long-term sustainability, social legitimacy, and inclusive development in the Pongkeru mining.

## CONCLUSION

This study demonstrates that early-stage CSR interventions, when grounded in a systematic needs assessment and integrated with Islamic social finance instruments, can significantly enhance the social, economic, and environmental sustainability of mining projects. The baseline analysis of the Pongkeru community reveals structural vulnerabilities, including dependence on agriculture and micro-enterprises, limited access to skills development, and exposure to environmental risks, which require proactive and empowerment-oriented responses rather than reactive or compensatory CSR practices.

The findings confirm that CSR designed during the exploration phase offers a strategic opportunity to prevent social conflict, strengthen community trust, and build long-term partnerships before operational impacts intensify. However, conventional CSR approaches alone are insufficient to address deeply rooted socio-economic inequalities and community vulnerabilities. The integration of zakat introduces a redistributive, ethical, and culturally legitimate mechanism that strengthens CSR's developmental orientation and social acceptance.

The proposed hybrid CSR–zakat model provides a comprehensive framework that combines workforce development, MSME empowerment, social protection, and environmental stewardship within a coherent and accountable governance structure. By aligning corporate responsibility with Maqasid al-Shariah principles, the model ensures that economic growth, social justice, and environmental sustainability are pursued in an integrated and balanced manner.

Theoretically, this study contributes to the mining CSR literature by advancing an Islamic social finance perspective that bridges normative ethics and practical development interventions. Practically, it offers actionable guidance for mining companies, policymakers, and zakat institutions to design inclusive, preventive, and context-sensitive CSR strategies that enhance social license to operate and long-term sustainability. Future research may extend this framework through quantitative impact evaluation, comparative cross-site analysis, and longitudinal assessment of CSR–zakat program outcomes.

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