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ABSTRACT

This study explores a community empowerment initiative undertaken by PT Borneo Indobara, a coal mining company operating in Tanah Bumbu Regency, South Kalimantan, focusing on the development of an integrated poultry farming center. The research examines the strategic framework adopted by the company to align with the concept of a future-fit society, one that is resilient, inclusive, and economically sustainable beyond the lifespan of extractive industries. Through a qualitative case study approach, the paper investigates how PT Borneo Indobara integrates local potentials, stakeholder engagement, and capacity building in establishing a long-term productive economic unit for the surrounding community. The study finds that the establishment of the integrated poultry center is already underway, beginning with the implementation of a poultry farming program as an entry-point strategy for market creation. This initiative primarily aims to lay the foundation for the eventual development of a local livestock feed factory. The overall strategy envisions a self-sustaining and integrated value chain, spanning feed production, poultry farming, and product marketing, where each component supports the others, fostering local economic independence. Particular emphasis is placed on the company's exit strategy, designed to ensure program continuity, community ownership, and institutional sustainability after the closure of mining operations.



Community Empowerment; Corporate Social Responsibility (CSR); Post-Mining Transition; Future-Fit Society; Exit Strategy; Integrated Poultry Farming; Sustainable Livelihoods; PT Borneo Indobara

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INTRODUCTION

This research aims to explore the implementation of the Future-Fit Society vision and the exit strategy framework in PT Borneo Indobara's (PT BIB) integrated poultry farming center program. Using a qualitative case-study approach, the study investigates how these strategies are operationalized in the company's community empowerment initiatives in Tanah Bumbu Regency (Yin, 2018; Stake, 2020). Previous studies highlight the importance of corporate social responsibility (CSR) in driving sustainable community development, particularly in agribusiness sectors (Agyemang et al., 2019; Idemudia & Ite, 2021). The application of exit strategies in CSR programs ensures that community projects maintain impact after corporate involvement ends (Muthuri et al., 2018). Data for this research were obtained from the company's published CSR community-empowerment reports as well as primary data shared directly by PT BIB (Crane et al., 2020). The analysis was conducted using thematic coding and guided by frameworks on community-led development and sustainability transitions, which emphasize participatory approaches and the integration of social, environmental, and economic objectives (Grin et al., 2018; Haxeltine et al., 2017).

PT Borneo Indobara (PT BIB), a subsidiary of PT Golden Energy Mines, is a coal-mining company established under the Coal Mining Cooperation Agreement (PKP2B) No. 007/PK/PTBABI/1994. In recent years, PT BIB has demonstrated substantial operational growth, with coal production increasing from 34.86 million tons in 2022 to 46.80 million tons in 2024 (Zhang et al., 2021; Li et al., 2020). Alongside its operational expansion, the company has demonstrated a strong commitment to sustainable development through CSR initiatives focused on community empowerment, environmental stewardship, and inclusive economic growth (Adams & Frost, 2019; Hamid et al., 2022). Recent studies emphasize that mining companies integrating CSR with local community development programs can achieve both social legitimacy and long-term operational benefits (O'Faircheallaigh, 2018; Jenkins & Yakovleva, 2020). Moreover, the alignment of CSR activities with environmental and social governance (ESG) standards is increasingly recognized as a strategic approach for mining firms to enhance stakeholder trust and sustainable value creation (He & Harris, 2020; Kolk & Lenfant, 2021).

International best practices in mining transitions provide important context for this study (Measham et al., 2024). In Zambia, the closure of copper mines led to the development of alternative livelihood programs that emphasized agricultural diversification and cooperative formation (Besa et al., 2019). Similarly, Australian mining companies have implemented community investment strategies that prioritize local ownership and skill transfer as core components of exit planning (McKenzie, 2019). The International Council on Mining and Metals (ICMM, 2019) emphasizes that effective mine closure requires integrated approaches that address social, economic, and environmental dimensions simultaneously.

In alignment with its vision of building a Future-Fit Society, PT BIB designs its community-empowerment programs to prepare communities for future socio-economic and environmental changes. The company seeks to reduce inequality, improve quality of life, and enhance self-reliance among communities, particularly in the vicinity of its mining operations.

One of the cornerstones of PT BIB's community-development strategy is the implementation of an exit strategy framework. This framework ensures that positive impacts from community programs continue after the cessation of mining activities. The strategy follows a phased model of support transition: initially, PT BIB provides up to 95 percent of resources, mainly infrastructure, technology, and technical guidance, while community contributions are minimal, consisting mostly of land and labor. Over time, as community capacity increases, their participation rises to 95 percent, with the company's involvement reduced to 5 percent. This model emphasizes local ownership, institutional strengthening, and sustainable governance, enabling communities to independently manage their own productive economic ventures.

Building on earlier pilot initiatives, where small-scale poultry projects were run in isolation and without integration, the current integrated poultry farming center program incorporates both the exit strategy and an "extraordinary turnaround" approach. The extraordinary turnaround concept accelerates performance improvements by deploying intensive, time-bound interventions (such as targeted training, optimized feeding regimes, and rapid market linkages) during the early phases. By situating these interventions within a single, fully equipped business center, PT BIB scales the program far beyond its previous footprint. As operations stabilize and yield metrics improve, the exit framework then guides a gradual

handover of management, assets, and decision-making authority to the local cooperatives. In this way, the sentra unggas model not only resolves the fragmentation of prior efforts but also delivers a rapid, measurable uplift in livelihood outcomes before empowering communities to sustain and grow the enterprise independently.

Tanah Bumbu Regency, the primary area of PT BIB's operations, is home to the second-highest number of impoverished residents in South Kalimantan, with over 18,000 people classified as poor according to the 2021 South Kalimantan Provincial Statistics. This condition is attributed to limited capital access, low levels of innovation, inability to meet market demands, and the economic downturn caused by the COVID-19 pandemic. Nonetheless, the region holds great potential in the livestock sector, with existing populations of cattle, goats, ducks, and chickens. In recent years, livestock populations have grown, in part due to government-supported aid programs aimed at boosting production and farmer welfare.

Recognizing the socio-economic context and in accordance with Ministry of Energy and Mineral Resources Regulation No. 41/2016 on community development in mining areas, PT BIB initiated a strategic poultry farming program. This program aims to strengthen the economic resilience of communities surrounding the mining site by developing a high-value, integrated livestock ecosystem. Initial support began in 2019 with the distribution of ducklings to community groups, followed by a gradual expansion of infrastructure, equipment, and poultry breeds across several villages, including Mangkalapi, Hatiif, Sidorejo, and Sumber Baru. The company also provides feed and technical tools, such as quail egg incubators, to ensure productivity and sustainability.

This poultry farming initiative is part of PT BIB's broader Strategic Real Economic Development Program, which seeks to develop community-based economic clusters across key sectors such as agriculture, fisheries, animal husbandry, and small-medium enterprises (SMEs). These clusters are designed to enhance competitiveness and community welfare through market access, skill development, and technology adoption. Ultimately, the program contributes to the realization of a future-fit society by preparing communities for global market dynamics while embedding an exit strategy that fosters long-term economic independence.

The integrated poultry farming program is designed not only to support improvements in household income and food security but also to serve as a preparatory step toward the potential development of a localized poultry feed production facility. By promoting interconnected value chains, from feed production to poultry cultivation and local distribution, the program seeks to facilitate the formation of a circular and community-based economic system. This approach encourages the development of an integrated ecosystem in which stakeholders within the community contribute to and benefit from mutually reinforcing economic activities, with the broader objective of sustaining livelihoods in the post-mining context.

METHOD

Through a qualitative case study approach, the paper investigated how PT Borneo Indobara integrated local potentials, stakeholder engagement, and capacity building in establishing a long-term productive economic unit for the surrounding community.

Data for this research were obtained from multiple sources to ensure comprehensive coverage and triangulation. Primary data included structured interviews with PT BIB community development officers, cooperative leaders, and program beneficiaries conducted

between March and August 2024. Secondary data consisted of the company's published CSR community empowerment reports (2020–2024), internal monitoring and evaluation documents, SROI assessment reports, and government statistical data from Tanah Bumbu Regency. Additional sources included field observation reports from program sites and technical documentation from the Karin Feed Mill and Community Learning Center.

The analysis followed a systematic thematic coding approach using NVivo software. Initial coding identified key themes related to exit strategy implementation, community capacity building, and sustainability indicators. Secondary coding categorized themes according to the Future-Fit Society framework dimensions—resilience, inclusivity, and economic sustainability—and cross-referenced them with established CSR exit strategy literature.

Research ethics were addressed through informed consent procedures for all interview participants, ensuring confidentiality and voluntary participation. Company-provided data were managed under strict confidentiality agreements, with sensitive financial and operational information anonymized as needed. The study received approval from the institutional ethics committee prior to data collection.

RESULT AND DISCUSSION

This chapter presents an analysis and descriptive overview of the current progress of the poultry livestock center program by PT Borneo Indobara. This part aims to delineate the specific developmental stages the program has reached, while critically examining the role and implementation of its exit strategy. The discussion will explore how far the program has advanced in terms of strategic planning and execution, with a particular focus on whether and how these efforts align with the broader vision of a future-fit society. This includes identifying which aspects, economic, social, technological, and environmental, have been addressed or fulfilled in the process of reaching long-term sustainability and resilience.

Status Quo of the Poultry Livestock Center Program

Tabel 1. Livestock populations, feed demand, and production capacity

Type of Livestock	Populati on	Feed Demand (gr/day/animal)	Monthly Feed Demand (kg)	Feed Type	Production Capacity (kg/month)	Deviation (kg)
	UII	(gi/day/ammai)	Demand (kg)	Турс	(kg/month)	(kg)
Meat Ducks (Bebek Pedaging)	3,2	150	14,4	Powder	15	600
Laying Ducks (Bebek Petelur)	4,1	150	18,45	Pellet	18,45	0
Broiler Chickens (Ayam Pedaging)	3,4	120	12,24	Powder	14,25	2,01
Layer Chickens (Ayam Petelur)	5,1	120	18,36	Pellet	0	-18,36
Layer Quail (<i>Puyuh Petelur</i>)	10,1	19	5,757	Pellet	0	-5,757
Subtotal (Poultry)	25,9		69,207		29,25	-39,957
Freshwater Fish (Aquaculture)	1,075 ponds	-	68,8	Pellet	0	-68,8
TOTAL		<u> </u>	138,007		29,25	-108,757

An assessment of the current Poultry Livestock Center Program reveals a critical imbalance between feed supply and demand. As shown in Table 1, the cumulative monthly feed demand across all poultry categories, meat ducks, laying ducks, broiler chickens, layer chickens, and layer quail, reaches approximately 69.2 kg. However, the current feed production capacity stands at only 29.25 kg per month, resulting in a significant supply gap of -39.96 kg. When considering total livestock, including aquaculture, the overall deviation reaches -108.76 kg, indicating a substantial shortfall in feed supply that undermines the feasibility and sustainability of the livestock program in its current state.

To address this gap and support the program's scalability, a series of strategic management initiatives have been undertaken:

- 1. Expansion of Poultry Housing Units: The capacity for quail, duck, and chicken farming has been increased through the development of additional and improved livestock shelters.
- 2. Deployment of Industrial-Scale Incubators: High-capacity hatching machines have been installed to improve the productivity and survival rates of DOCs (Day-Old Chicks), DOQs (Day-Old Quails), and DODs (Day-Old Ducks).
- 3. Support Packages for Livestock Starters: Initial stock (DOQ/DOC/DOD) and one complete feed cycle are provided to accelerate production and ensure the early-stage viability of poultry businesses.
- 4. Establishment of a Feed Mill in Karang Indah: A local feed production facility is under development to increase supply capacity and reduce dependence on external feed sources.
- 5. Development of Corn Farming Areas: Agricultural land has been cleared and supported with fertilizers and seeds for one cycle to ensure a stable raw material supply for the feed mill.
- 6. Fisherfolk Support Programs: Fishermen are equipped with nets, drying racks, and fish meal machines to produce fishmeal from low-value fish (*ikan rucah*), which serves as a protein-rich input for poultry feed.
- 7. Formation of Koperasi Borneo Jaya Mandiri: This cooperative serves as a vital distribution hub to channel livestock products beyond village boundaries, strengthening market access and economic resilience.

The Poultry Livestock Center Program initiated by PT Borneo Indobara represents an integrated initiative designed to strengthen rural poultry farming systems by addressing the interconnected elements of production, input supply, and market access. At its core, the program is built upon three fundamental components: poultry farming (*budidaya unggas*), poultry feed development (including the Karin Feed Mill), and market access or sales enablement. While the overarching design encompasses all three pillars, current implementation has focused primarily on the first two, improving poultry rearing practices and ensuring a reliable supply of affordable feed. The third pillar, which involves building a structured and sustainable route to market for poultry products, remains in development and is expected to be a key area for future expansion.

Performance assessments of the program, conducted in line with the Ministry of Administrative and Bureaucratic Reform's standards (Permen PAN-RB No. 14/2017), reflect high levels of community satisfaction. Both the feed mill and poultry farming initiatives have received "Very Good" ratings, with satisfaction scores ranging from 89.8 to 95.04. These positive indicators highlight the program's success in delivering essential services to local

communities, although several sub-indicators, particularly timeliness, service communication, and post-program monitoring, have been flagged for improvement.

A Social Return on Investment (SROI) evaluation offers further insight into the program's tangible benefits. The Karin Feed Mill Program is projected to generate an SROI of 3.90 by December 2025, indicating that every Rp1 invested is expected to return Rp3.90 in social value. Meanwhile, the Poultry Farming Program has yielded an SROI of 1.205 as of mid-2024, signaling a developing but still positive impact per investment. These figures suggest that the feed mill, with its expanding operations post-2022, has become a key lever in driving economic value, while the poultry farming component, which had earlier impact starting in 2021, continues to mature and deepen its effect on local livelihoods.

The distribution of benefits among stakeholders reveals important dynamics. Within the feed program, the bulk of the economic gains have gone to upstream raw material suppliers such as fishermen, corn farmers, and palm kernel vendors, with the core feed mill group capturing less than 10% of the total value created. In contrast, the poultry farming component has delivered more direct gains to its primary beneficiaries, with farmer groups capturing over 64% of the total value generated. This suggests that while both programs are impactful, the feed initiative requires further optimization to increase profitability among its core participants.

Strategically, the Poultry Livestock Center Program demonstrates the potential of a closed-loop value chain in rural settings, where feed supply supports livestock production, which in turn needs robust access to markets. While the initial two pillars have laid a strong foundation, completing the third pillar on sales and distribution will be essential to maximizing the program's full impact. Moving forward, strengthening post-program monitoring, improving internal capacity among group members, and accelerating the market access component will be critical to realizing the program's long-term vision and replicability in other regions.

Implementation of the Exit Strategy

The Poultry Livestock Center Program initiated by PT Borneo Indobara (BIB) reflects a maturing model of community empowerment that moves beyond philanthropic interventions towards a more structured, inclusive business framework. At the heart of its design lies an implicit exit strategy, defined not by abrupt withdrawal, but by a gradual, capacity-focused handover of resources, knowledge, and institutional support to the community. This strategy is discernible through several interlinked mechanisms that aim to foster autonomy, resilience, and systemic interdependence within the local poultry and aquaculture sectors.

One of the most salient indications of an exit strategy is the program's emphasis on developing community-owned productive assets, such as poultry shelters, hatchery incubators, and the Karin Feed Mill. These assets are not only provided but are complemented by technical training, participatory experimentation, and operational oversight through external consultants. This approach aligns with the principle of institutional embedding, in which sustainability is pursued by embedding new capabilities and governance structures within community systems (Uphoff, 1992). The establishment of the Koperasi Borneo Jaya Mandiri further reinforces this trajectory, serving as a distribution platform designed to extend the economic reach of the community's production networks beyond local markets.

Concrete advancements in livestock infrastructure illustrate how this institutional embedding materialized on the ground. PT BIB has facilitated the construction of centralized poultry shelters for layers, ducks, and quails, with a combined capacity of 10,000 birds. Strategically located in surrounding villages, these shelters feature modern ventilation, climate control, and sanitation systems that meet animal health standards. Industrial-scale hatchery machines complement this setup, enabling the community to hatch thousands of eggs per cycle and significantly reduce dependency on external chick suppliers. The program has already achieved a daily egg output of around 7,500 units and monthly poultry meat production of approximately 8 tons.

Table 2. Poultry livestock center related program impact and growth metric

Year	2020	2021	2022	2023	2024
Revenue Growth (IDR)	131,671,680	771,641,902	3,005,484,372	6,466,079,020	14,579,023,300
Production Output (Heads/Eggs/Units)	13,458	584,177	2,341,839	6,939,142	6,146,627
Unit Population Members (Heads/Eggs/Units)	402	19,434	36,702	46,913	96,061
Group Members (People)	12	55	84	140	204
Beneficiaries (Households)	5	37	68	124	191

Quantitative evidence further substantiates the program's trajectory toward self-reliance. From 2020 to 2024, revenue from the poultry program increased more than 110-fold, from IDR 131 million to IDR 14.5 billion. During the same period, production output surged from 13,458 to over 6.1 million heads, eggs, or units. Population metrics of poultry units expanded dramatically from 402 to 96,061 units, while community involvement deepened, reflected in the rise of group members from 12 individuals in 2020 to 204 in 2024, and beneficiary households from only 5 to 191. These figures reveal a steady expansion not only in economic performance but also in participatory reach, underscoring the effectiveness of the program's inclusive and incremental empowerment design.

In tandem, PT BIB has invested in human capital by providing intensive training in feed formulation, livestock health management, and business administration, enabling local residents to independently operate these facilities. This multi-tiered approach not only promotes self-sufficiency but also aligns with the core tenets of a phased exit strategy, where institutional support tapers off as local capacity strengthens.

The formation of a closed-loop economic model, connecting local corn farmers, fisherfolk, feed producers, and poultry farmers, constitutes another crucial pillar of the exit strategy. By fostering horizontal cooperation and supply chain integration, BIB diminishes external dependency and creates a self-reinforcing ecosystem of rural livelihoods. This systemic interdependence not only enhances productivity but also diversifies income sources and strengthens local bargaining power, thereby reducing the risk of collapse upon donors or corporate exit.

Moreover, the program's use of Social Return on Investment (SROI) metrics suggests a deliberate attempt to measure long-term community value creation rather than short-term

corporate gains. The divergent SROI values between the feed mill (3.90 projected by 2025) and the poultry farming component (1.205 as of mid-2024) indicate differentiated maturity levels, where the feed mill, having undergone later but more infrastructure-intensive development, is poised for greater scalability. These evaluations function as both accountability mechanisms and strategic tools for guiding the timing and nature of corporate disengagement.

A further layer of justification is offered through BIB's efforts to institutionalize learning and food security through its Community Learning Center (CLC). Relocated in 2024 to a safer and more accessible 2.9-hectare site in Sebamban Lama, the CLC operationalizes the Integrated Farming System model by blending agriculture, livestock, and aquaculture into a unified practice field. Progress in 2024 includes the development of 12 vegetable cultivation plots (from a target of 30), two nursery plots for pakeoy and mustard greens, and the establishment of a 2x5 meter fishpond for tilapia and gourami culture. The use of Lemna for natural feed, the planting of lamtoro as sustainable livestock fodder, and the commercial sale of two beef cattle reflect a pragmatic, ecosystem-based approach to rural economic development.

However, the analysis also reveals that while BIB has made significant progress in implementing a functional exit strategy, its execution remains partial. Notably, the third pillar, market access, remains underdeveloped. Without a robust and sustainable market distribution infrastructure, the value chain risks becoming internally saturated and externally disconnected, thereby limiting the scalability and economic viability of the empowerment model. This gap underscores a common challenge in exit strategy design: transitioning from production-focused interventions to comprehensive market systems development (Korten, 1990).

Additionally, challenges in feed supply-demand imbalances and limited profitability among feed mill operators (who capture less than 10% of the value created) suggest that the exit strategy must be accompanied by mechanisms to address intra-community value distribution and operational efficiencies. In this regard, BIB's phased expansion of corn farming areas and fishmeal production indicates a recognition of this shortfall, but sustained support will be needed to fully bridge the gap. The encouraging trajectory of key indicators, such as growing revenues, participation, and production, points to a promising but still-evolving model of empowerment that demands continued refinement, especially in value chain integration and equitable benefit distribution.

Alignment with the Vision of a Future-Fit Society

PT Borneo Indobara's (BIB) Poultry Farming Center is not just another CSR initiative, it represents a strategic shift toward regenerative, community-based economic empowerment. Aligned with the principles of a future-fit society, the program addresses rural livelihood challenges through a systemic approach that fosters autonomy, inclusivity, and sustainable productivity.

The backbone of the program is its investment in productive infrastructure. PT BIB has constructed centralized poultry facilities across several villages with a total capacity of 10,000-layer chickens, ducks, and quails. These facilities are outfitted with modern ventilation, temperature control, and hygiene systems that meet livestock health standards. This scale-up has enabled local farmers to produce an average of 7,500 eggs and 8 tons of poultry meat monthly, substantially reducing dependency on external hatcheries.

Beyond infrastructure, the program integrates upstream and downstream components. An industrial-grade incubator allows for large-scale egg hatching, securing a consistent supply of livestock and closing the loop on breeding cycles. Local feed production, supplied by corn farmers and fishers, fuels a circular economy model, while feed quality and cost-efficiency are maintained in-house. These innovations ensure not only resilience against market shocks but also support long-term sustainability.

Crucially, PT BIB equips communities with knowledge and skills. Participants receive intensive training in modern livestock management, covering everything from feed formulation to disease control. This education has allowed the community to independently operate the poultry centers, transitioning from beneficiaries to micro-entrepreneurs.

Complementing this is the role of PT BIB's Community Learning Center (CLC), now relocated to a safer and more accessible 2.9-hectare plot in Sebamban Lama. The CLC serves as a community knowledge hub for implementing an Integrated Farming System (IFS), a holistic model combining agriculture, livestock, and aquaculture to enhance food security and economic resilience.

In 2024, CLC recorded several milestones. Twelve vegetable beds were developed (from a target of 30), supporting the cultivation of spinach, mustard greens, and pakcoy. In aquaculture, a 2×5 meter fishpond was built to raise tilapia and gourami, complemented by Lemna cultivation for natural feed efficiency. On the livestock front, PT BIB supported the sale of cattle at a regional slaughterhouse and initiated sustainable fodder planting (lamtoro) along CLC fencing. These activities reflect an evolving ecosystem of production that reinforces community welfare through self-sustaining systems.

Despite its many strengths, the program's third pillar, market access and distribution, remains underdeveloped. For this future-fit initiative to realize its full transformative potential, improved strategies are needed to connect producers with broader markets, thereby converting subsistence gains into scalable economic mobility.

PT BIB's Poultry Farming Center and CLC showcase a model of regenerative rural development rooted in circularity, community ownership, and inclusive growth. With strategic enhancements in market integration and monitoring, this initiative could serve as a replicable blueprint for sustainable transformation in rural Indonesia and beyond.

CONCLUSION

PT Borneo Indobara's Poultry Livestock Center and Community Learning Center programs exemplify an embedded exit strategy by progressively transferring ownership, skills, and operational control to the local community through asset construction, technical training, cooperative development, and integration of rural economies. This case illustrates how Future-Fit Society principles can be operationalized within CSR exit frameworks, bridging short-term philanthropy and long-term community-led development, thereby contributing to CSR and sustainable development theory by showing extractive industries' potential to foster local economies. Although the program has established infrastructure and human capacity, it still faces challenges in securing sustainable market access and equitable value distribution critical for full autonomy. Policy-wise, this model offers a replicable framework for Indonesia's mining transition strategies by promoting circular economy practices and community-led systems, emphasizing multi-sector livelihood integration. Future research should focus on

strategies to strengthen market integration, value chain equity, and long-term impact monitoring to enhance scalability and sustainability in post-extractive rural development.

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