



Suitability Analysis of Community Development and Empowerment Programs in Mining Areas (Case of PT. GGB)

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ABSTRACT

Keywords:

ppm program;
community
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needs; sustainable
development

This study aims to evaluate the extent to which the Community Development and Empowerment Program (PPM) implemented by PT. Golden Great Borneo (GGB) in 2024 aligns with the actual needs of communities in the Ring 1 area, specifically Prabumenang and Banjarsari Villages, East Merapi District, Lahat Regency. Using a qualitative descriptive approach, the research combines analysis of official program documents and field observations with a structured Likert-scale survey involving 40 purposively selected beneficiaries. The study assesses eight core domains mandated in PPM guidelines: education, health, real income, economic independence, socio-religious-cultural aspects, environment, community institutions, and infrastructure. Findings show that the program received moderate appreciation from the community, with average perception scores ranging from 3.5 to 3.7. While education, health, and infrastructure were positively valued, key issues remain in benefit equity, long-term sustainability, and participatory implementation. The study contributes a novel, integrative assessment model combining community perception data with program alignment analysis. It concludes that future PPM efforts should adopt a more impact-oriented, community-driven approach, particularly by strengthening environmental programs, preventive health initiatives, post-training support, and local institutional capacity to ensure sustainable development in mining-affected regions.

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INTRODUCTION

Community empowerment programs have become a core obligation for extractive industries, especially mining companies, to mitigate negative socio-environmental impacts and promote inclusive development in surrounding communities (Leonard, 2024). In Indonesia, the implementation of the Community Development and Empowerment Program (*Program Pengembangan dan Pemberdayaan Masyarakat*, PPM) is mandated by Ministerial Decree No. 1824 K/30/MEM/2018 and is reinforced by Law No. 40/2007 and Government Regulation No. 47/2012. These regulations emphasize the responsibility of mining companies to not only comply with legal obligations but also to embrace broader corporate social responsibility (CSR) frameworks that align with sustainable development goals (Bebbington, 2020; Esteves et al., 2020; Zubair & Khan, 2021; Kolk & Lenfant, 2021; Nugroho & Yuliani, 2021; Chen et al., 2022). Prior research highlights the importance of aligning CSR with the real needs of communities, particularly in rural and underdeveloped areas impacted by extractive activities (Mehta & Widjaja, 2022; Abdullah & Santoso, 2022; Garcia, 2021). Empowerment initiatives across areas such as education, health, environmental stewardship, and local economic development are considered key to fostering sustainable stakeholder relationships (Lee, 2021; Alatas et al., 2022; Huang, 2021).

Despite growing institutional support for CSR and PPM frameworks, many initiatives in Indonesia and comparable developing economies remain symbolic, short-term, or misaligned with beneficiary priorities (Rogers & Yulia, 2021; Park & Bae, 2021; Prasetyo & Wardani, 2022; Basri & Nurhadi, 2022). Evaluation practices still tend to emphasize administrative outputs over meaningful community outcomes, and only a limited number of studies have systematically assessed how beneficiaries perceive the relevance, equity, and long-term viability of these programs (Wong, 2022; Darmawan, 2021; Firdaus et al., 2021; Putra & Handoko, 2021). Furthermore, budget allocations for key domains such as infrastructure, environment, and socio-economic empowerment are rarely analyzed in terms of their effectiveness or impact fit (Devina et al., 2022; Nasution, 2021). A recurring gap in the literature is the lack of mixed-method, impact-based assessments that combine community perspectives with corporate documentation, particularly in ring-1 mining areas directly affected by operations (Nugroho & Hartono, 2022; Budi & Kamal, 2022).

This study addresses that gap by applying an integrative evaluation model that combines corporate PPM document analysis with field-based community perception surveys. The novelty of this research lies in its structured, domain-specific assessment of eight priority areas mandated by national policy---namely education, health, real income, economic independence, socio-religious culture, environmental preservation, institutional strengthening, and infrastructure development. By using a Likert-scale survey instrument triangulated with on-site observation, the study provides a robust and replicable framework for evaluating CSR relevance and performance (Hadi et al., 2022; Wang & Fang, 2021; Wulandari, 2022). Unlike most previous studies that focus on qualitative or conceptual dimensions, this research offers a data-driven approach to assess how well corporate CSR planning aligns with grassroots realities. It also explores the potential of participatory feedback mechanisms to enhance program quality and stakeholder satisfaction (Zhang & Evans, 2021; Setiawan & Dewi, 2021; Santoso & Nugraha, 2021; Suhendra, 2021; Yamani, 2021; Susilo, 2023).

The objectives of this study are threefold. First, it aims to evaluate the degree to which PT. Golden Great Borneo's 2024 PPM aligns with the actual needs of ring-1 communities in Prabumenang and Banjarsari Villages. Second, it seeks to analyze community perceptions of CSR implementation across the eight mandated domains using quantifiable perception data. Third, the study intends to formulate strategic, evidence-based recommendations to improve the effectiveness, fairness, and sustainability of future PPM programs. Through this three-pronged approach, the study aims to contribute to practical improvements in corporate-community relations as well as to the academic discourse on CSR evaluation in extractive sectors.

The findings of this research are expected to generate actionable insights for mining companies, CSR practitioners, and policymakers at the local and regional levels. By incorporating community feedback into the design and evaluation of PPM, mining companies can enhance their social license to operate and reduce the risk of social disengagement or conflict. At the policy level, the study reinforces the importance of transparent, participatory, and data-driven CSR implementation models that are capable of producing long-term socio-economic transformation. Ultimately, the research supports the perspective that CSR in the mining sector must move beyond charitable donations and compliance formalities toward being integrated as a strategic investment in human capital, institutional resilience, and environmental sustainability.

METHOD

This study employed a qualitative descriptive design to assess the alignment between PT. Golden Great Borneo's (GGB) 2024 Community Development and Empowerment Program (PPM) and the actual needs of local beneficiaries in Ring 1 areas. The research focused on two villages; Prabumenang and Banjarsari in East Merapi District, Lahat Regency, South Sumatra, where the company's mining activities are concentrated. This approach was selected due to its suitability for exploring contextualized perceptions, social dynamics, and program outcomes from the perspectives of the affected communities. The descriptive nature of the study allowed the researchers to systematically document field realities and assess them in relation to the company's formal development plans. By combining field-level engagement with institutional document analysis, the study offered a grounded understanding of the operational gap if any between intended corporate social responsibility outcomes and community experiences. This methodological framework provided flexibility in triangulating narrative data, perceptions, and documentary evidence, thereby enhancing the validity of findings while maintaining a community-centered focus.

The study employed purposive sampling to identify key informants and beneficiaries directly involved in or affected by PT. GGB's PPM activities. A total of 40 respondents were selected from two Ring 1 villages: Prabumenang and Banjarsari. The sample included a diverse representation of stakeholders, such as community leaders, youth figures, housewives, village officials, and recipients of assistance programs. Selection criteria emphasized firsthand knowledge of PPM implementation and program outcomes. Purposive sampling was chosen for its effectiveness in targeting respondents who possess rich and relevant insights regarding the company's CSR performance. The sample size was deemed sufficient for capturing a range of perceptions while maintaining data saturation. Additionally, the two selected villages reflect the socio-economic diversity within the company's impact area, thus enabling comparative analysis. This sample design enhanced the reliability of the qualitative findings while allowing the research to maintain depth, contextual richness, and relevance to the real beneficiaries of the PPM program.

The study utilized three primary methods of data collection: field observations, semi-structured interviews, and structured questionnaires. First, field observations were conducted to directly assess the physical implementation and environmental impact of PPM projects. Second, interviews were held with key informants including company representatives, village heads, and community members to capture qualitative insights. These interviews followed a semi-structured format to allow for depth and flexibility in responses. Third, a Likert-scale questionnaire was distributed to 40 selected respondents to measure community perceptions across eight domains: education, health, real income, economic independence, socio-cultural-religious, environment, community institutions, and infrastructure. The questionnaire used a five-point scale ranging from "strongly disagree" to "strongly agree." This combination of tools enabled comprehensive data triangulation, integrating perceptual, documentary, and observational inputs. The methodology ensured that the data collected were not only rich and diverse but also empirically grounded and analytically comparable across themes.

Questions and answers with respondents are written directly into a transcript matrix that has been prepared as a document. This matrix will facilitate the actual facts of the parties directly related to the performance of the implementation of community empowerment of PT. X related to the suitability of the program implemented by the company. To make it easier to summarize data and facts in the field, the author uses the interview transcript matrix guide as shown in table 1 below.

Table 1 Qualitative Questionnaire Transcript Matrix

No	Statement	1 (STS)	2 (TS)	3 (Neutral)	4 (S)	5 (SS)
1	The PPM program from coal mining companies is in accordance with the needs of the local community.					
2	Information about the PPM program is easily obtained by the public.					
3	Mining companies involve the community in the planning of the PPM program.					
4	PPM programs are more short-term than long-term.					
5	The implementation of the PPM program is transparent and accountable.					
6	There are communication obstacles between mining companies and the community related to the PPM program.					
7	The PPM program is able to increase people's income.					
8	The PPM program supports the construction of public facilities (education, health, infrastructure).					
9	The main challenge of the PPM program is the lack of active community participation.					
10	The PPM program is often constrained by coordination problems with local governments.					
11	Mining companies provide ongoing assistance to the community after the program is running.					
12	The PPM program pays attention to the preservation of the environment around the mine.					
13	The community is satisfied with the results of the PPM program that has been implemented.					
14	There is a problem of unequal benefits of the PPM program among the community.					
15	The PPM program helps people become more economically independent.					
16	There are challenges in supervising and evaluating the implementation of PPM.					
17	Mining companies have a long-term commitment to sustainable development through PPM.					
18	The main problem of PPM is the limited budget allocated.					
19	The PPM program is in accordance with the principles of sustainable development (economic, social, and environmental).					
20	In your opinion, PPM programs need to be improved in quality and sustainability in the future.					

The analytical framework in this study employed a triangulated, multi-level approach integrating qualitative and quantitative elements. At the first level, descriptive statistics were used to summarize the results of the Likert-scale questionnaire, with weighted averages computed for each of the eight domains to reflect respondent perceptions. At the second level, document analysis of the 2024 PPM planning and budget allocation reports (Figure 1) provided insights into program objectives, financial commitments, and stated outcomes. At the third level, comparative analysis was applied to assess alignment between community needs and corporate delivery, identifying areas of convergence and discrepancy. This layered framework allowed the study to move beyond surface-level descriptions and into evaluative diagnostics. It enabled researchers to interpret perceptual data in relation to formal institutional outputs, producing a comprehensive, evidence-based assessment. The framework is particularly suited for studies on CSR program performance, offering a balance between empirical rigor and contextual depth.

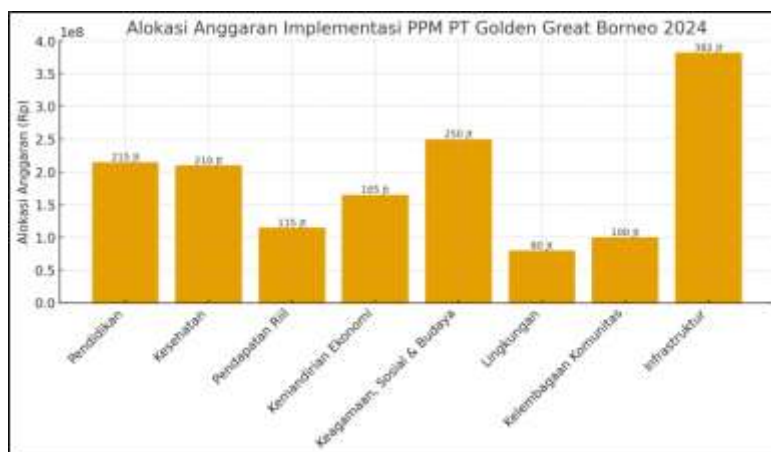


Figure 1. PPM Implementation Budget Allocation of PT. GGB Year 2024
Source : Research Data Processing Results, 2025

The research process was structured into six sequential steps to ensure clarity, consistency, and analytical integrity (Figure 2). First, the researchers reviewed official PPM documents from PT. GGB to identify program scope, goals, and budget allocations. Second, respondents were selected based on purposive sampling criteria ensuring relevancy and experience with the program. Third, field data were collected through observation, interviews, and questionnaires. Fourth, the interview data were transcribed and organized into a matrix to allow structured analysis across themes. Fifth, data were analyzed both descriptively and comparatively, integrating community perception with documentary evidence. Sixth, recommendations were formulated based on the synthesis of all data sources. These steps provided a systematic flow from exploration to conclusion, supporting the validity of findings and the reliability of interpretations. Each phase was designed to support cross-validation and strengthen the evidence base, making the results robust for academic, practical, and policy-related applications.



Figure 2. Research Steps

This study was conducted in accordance with ethical research standards in social science. All participants were informed of the research objectives and provided verbal consent before data collection. Respondents were assured of the confidentiality and anonymity of their identities, and participation was entirely voluntary. To ensure credibility, the study implemented triangulation across multiple data sources: interviews, documents, and field observations. Data interpretations were further validated through member-checking, where selected participants reviewed the researchers' summaries of their statements to confirm accuracy. Additionally, the researchers maintained a neutral stance throughout the study, avoiding biased questions and interpretations. All interview materials were securely stored and used exclusively for academic purposes. The combination of transparency, respondent validation, and methodological triangulation enhanced the trustworthiness of the findings, aligning the study with best practices in qualitative inquiry and ensuring that the conclusions drawn reflect the authentic voices and realities of the participants.

RESULTS AND DISCUSSION

1. Education

The education program includes scholarships, welfare assistance for honorary teachers, computer training, school infrastructure assistance, and the procurement of library books with a total budget of Rp 215 million. This activity is relevant to the needs of the community because education is the main foundation for improving the quality of human resources around the mine. Scholarships help underprivileged students stay in school, while computer training introduces the digital skills needed in today's era. However, the conformity analysis showed that there was a considerable gap between material assistance (infrastructure and books) compared to increasing teacher capacity. Teacher empowerment and teaching quality should be further strengthened so that the effect of the program is more sustainable.

2. Health

With an allocation of Rp 210 million, the health program focuses on nutrition, posyandu, strengthening health centers, counseling, and free health services. This program is in line with the needs of people who are still facing stunting problems and limited access to medical services. Support for posyandu and local health workers shows a commitment to sustainability. However, the budget distribution is more towards curative treatment than preventive efforts. Research shows that people actually need more disease prevention interventions and healthy lifestyle education. So there is an opportunity to divert some of the funds to long-term promotive-preventive programs.

3. Real Income Rate on Employment

This program allocates Rp 115 million for entrepreneurship training in the agriculture, livestock, fisheries, and mining work skills. Conformity analysis shows that this activity has great potential to increase people's income, especially since the majority of livelihoods are in the agricultural sector. However, the main challenge is post-training continuity. Many people cannot access the market or business capital. The program will be more suitable if it is equipped with business mentoring, access to cooperatives, or micro capital so that the skills gained really generate real income.

4. Economic Independence

The budget of Rp 165 million is directed at the formation and strengthening of MSMEs, PKK skills training, agriculture-fisheries, digital marketing, and basic food assistance. In terms of suitability of needs, this activity is appropriate because the community urgently needs to strengthen the non-mining economy as an alternative source of income. However, the portion of basic food assistance (Rp 20 million) has the potential to be counterproductive to the spirit

of economic independence. The program should be focused on strengthening digital-based MSMEs and marketing assistance so that the community is not only given skills but also a wider business network.

5. Religious, Social, and Cultural

With a budget of IDR 250 million, this field is one of the top priorities. Welfare assistance for teachers, sacrificial animals, worship facilities, art training, and socio-cultural activities reflect efforts to maintain local social and cultural harmony. The analysis shows that this program is in accordance with the needs of a religious community and upholds tradition. However, most budgets are consumptive (celebrations, activity assistance) rather than productive. For sustainability, companies can direct funds to cultural-based economic strengthening programs such as songket crafts, traditional arts, and cultural ecotourism.

6. Environment

The environmental program received an allocation of Rp 80 million, which is relatively small compared to other fields. Activities include waste banks, fruit seeds, road watering, and mutual cooperation. In terms of needs, the community around mine is greatly affected by dust, water, and environmental degradation. So that the low budget is less proportional to the urgency of the problem. This study found a gap between the real needs of the community (clean air, clean water, productive land) and the programs being run. It is suggested that the allocation be enlarged with a focus on post-mining land rehabilitation and environment-based food security programs.

7. Community Institutions

With a budget of IDR 100 million, this program supports youth organizations, scouts, CSR, and sports. Conformity analysis shows the program is quite helpful in strengthening local organizations, but it is still incidental. In fact, the community needs strong institutions to manage the PPM program in a sustainable manner. Companies should develop formal institutional schemes such as cooperatives, BUMDes, or multi-stakeholder forums so that community participation is more real. That way, institutions are not only recipients of assistance but also drivers of local development.

8. Infrastructure

This field received the largest allocation, IDR 382 million. The program includes the construction of sports fields, markets, school buildings, village roads, borewells, and libraries. In terms of needs, people do need physical facilities to support social and economic life. However, research has found that physical development tendencies often overlook the maintenance and sustainability aspects. Infrastructure without operational management and maintenance funds has the potential to fail. To be more suitable, companies can work with the village government in infrastructure management so that facilities are truly useful in the long term.

Based on the description above, the overall implementation of PT Golden Great Borneo's PPM 2024 with a total budget of IDR 1,517 billion has covered eight main areas that touch the needs of the community. However, the analysis shows an imbalance of allocation with a large focus on infrastructure and religious culture, while preventive health and the environment are relatively minimal.

Recommendations for the company so that the PPM program is carried out in accordance with the needs of the beneficiaries are as follows.

1. Diverting part of the budget to the environment and preventive health. The main impact of mining is air, water, and health risks, so the allocation for the environment (only Rp80 million) and preventive health is still too small. Companies should improve environmental rehabilitation programs, dust control, and healthy lifestyle campaigns so that the benefits are more directly felt for the community.

2. Strengthening post-training mentoring Many training programs only stop at the implementation stage. Without follow-up in the form of business assistance, access to capital, or market networks, it is difficult for people to develop the skills that have been acquired. With long-term mentoring, training will result in a real increase in income.
3. Reducing consumptive programs, increasing productive and sustainable programs. Assistance for ceremonial activities or basic necessities is indeed useful for a moment, but it does not have a long-term need to shift their focus to productive programs, such as the development of local crafts, modern agriculture, or culture-based businesses, so that the economic benefits can be felt continuously.
4. Building independent community institutions to be able to manage PPM programs in the long term. PPM programs should not only be in the form of providing assistance, but also strengthening local organizations (BUMDes, cooperatives, village CSR forums). With strong institutions, communities can continue, manage, and supervise programs even if companies reduce direct intervention in the future.

Analysis of the Results of the Informant Questionnaire in Banjarsari Village and Prabumenang Village

The pattern of data mining was carried out through the distribution of questionnaires to the beneficiary communities of the Community Development and Empowerment Program (PPM) of PT. Golden Great Borneo (GGB). Respondents were selected from two villages in the ring 1 area, namely Prabumenang Village and Banjarsari Village in East Merapi District, Lahat Regency. The selection of respondents in this region is important because it is the group most affected by mining activities, as well as the main recipients of the PPM program.

The questionnaire instrument uses statements compiled based on eight main areas of PPM, namely education, health, real income increase, economic independence, religious-socio-cultural, environment, community institutions, and infrastructure. To measure respondents' perceptions, a Likert scale was used with five categories of answers: strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). This scale allows researchers to transform qualitative data in the form of respondents' opinions into measurable quantitative data.

Next, the data is analyzed using weighting to calculate the average score of each statement. This technique helps identify the level of alignment between the PPM program run by the company and the real needs of the community. Thus, the results of the questionnaire analysis can provide an empirical picture of the effectiveness of the program, reveal challenges, and become the basis for the formulation of recommendations. A summary of the results of the questionnaire from the two villages is seen in table 2.

Table 2. Summary of the Results of the Questionnaire of Respondents Beneficiaries of the PPM Program of PT. GGB

No	Statement	RESPONDENTS' ANSWERS									
		PRABUMENANG VILLAGE (people)					BANJARSARI VILLAGE (people)				
		1	2	3	4	5	1	2	3	4	5
		(ST S/T P)	(T S/ TP)	(Ne utr al)	(S /P)	(S S/S P)	(ST S/T P)	(T S/ TP)	(Ne utr al)	(S /P)	(S S/S P)
1	The PPM program from coal mining companies is in accordance with the needs of the local community.	0	1	3	6	0	2	0	4	1	8
2	Information about the PPM program is easily obtained by the public.	0	2	3	5	0	0	2	5	5	3

No	Statement	RESPONDENTS' ANSWERS									
		PRABUMENANG VILLAGE (people)					BANJARSARI VILLAGE (people)				
		1 (S/T P)	2 (T S/ TP)	3 (Ne utr al)	4 (S /P)	5 (S S/S P)	1 (S/T P)	2 (T S/ TP)	3 (Ne utr al)	4 (S /P)	5 (S S/S P)
3	Mining companies involve the community in the planning of the PPM program.	0	0	4	6	0	0	0	4	9	2
4	PPM programs are more short-term than long-term.	0	0	2	5	3	1	0	4	8	2
5	The implementation of the PPM program is transparent and accountable.	1	1	3	3	2	2	0	4	5	4
6	There are communication obstacles between mining companies and the community related to the PPM program.	1	0	3	4	2	0	1	4	9	1
7	The PPM program can increase people's income.	0	1	3	5	1	0	0	6	7	2
8	The PPM program supports the construction of public facilities (education, health, infrastructure).	1	0	5	3	1	1	1	6	7	0
9	The main challenge of the PPM program is the lack of active community participation.	0	1	2	5	2	1	2	2	9	1
10	The PPM program is often constrained by coordination problems with local governments.	0	0	3	4	3	1	0	4	8	2
11	Mining companies provide ongoing assistance to the community after the program is running.	0	0	5	4	1	1	0	4	7	3
12	The PPM program pays attention to the preservation of the environment around the mine.	1	0	4	3	2	0	2	4	6	30
13	The community is satisfied with the results of the PPM program that has been implemented.	0	1	4	3	2	0	0	5	8	2
14	There is a problem of unequal benefits of the PPM program among the community.	0	0	5	4	1	0	1	5	8	1
15	The PPM program helps people become more economically independent.	0	1	4	5	0	0	2	3	8	2
16	There are challenges in supervising and evaluating the implementation of PPM.	0	1	4	3	2	0	1	6	5	3
17	Mining companies have a long-term commitment to sustainable development through PPM.	0	0	6	2	2	0	3	8	3	1
18	The main problem of PPM is the limited budget allocated.	0	1	4	5	0	0	1	6	5	3
19	The PPM program is in accordance with the principles of sustainable development (economic, social, and environmental).	0	1	7	1	1	3	0	6	4	2
20	In your opinion, PPM programs need to be improved in quality and sustainability in the future.	0	0	2	6	2	1	0	4	3	7

Source : Research Data Processing Results, 2025

The relationship with the title of the research is very close. The results of the questionnaire show the extent to which the implementation of PPM PT GGB is really in accordance with the needs of the community, both from social, economic, and environmental

aspects, as well as whether the program contributes to the sustainability of local development, figure 3.

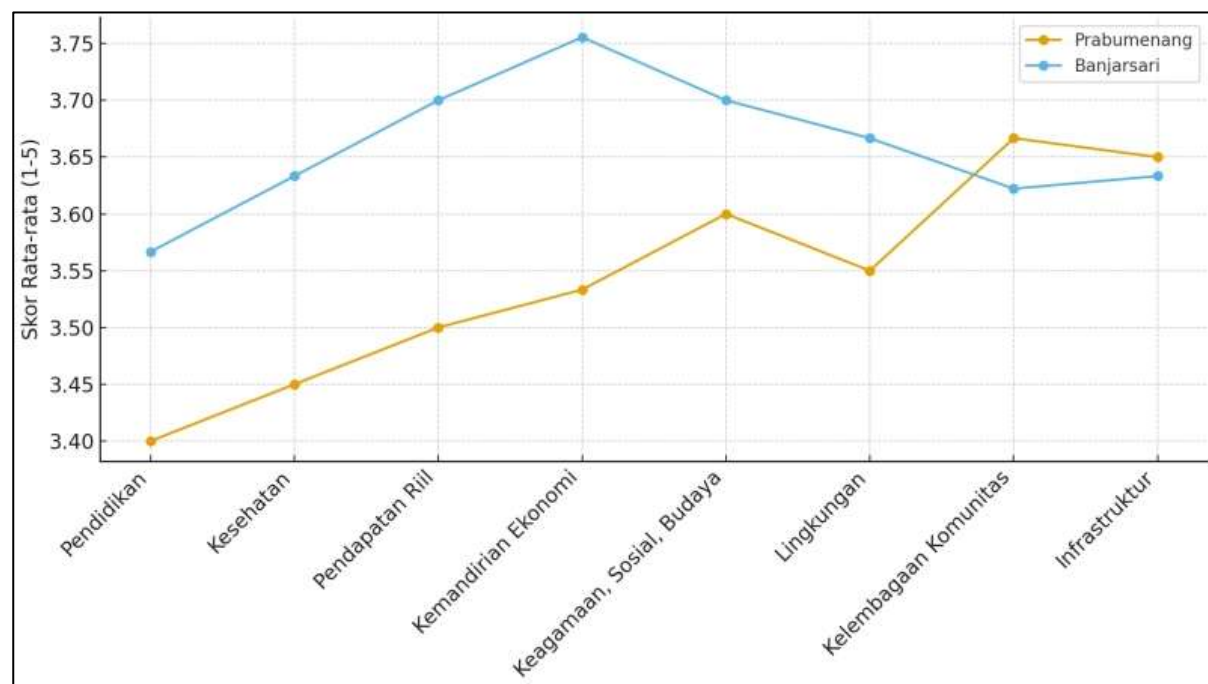


Figure 3. Graph of Questionnaire Results of Beneficiary Respondents in Prabumenang Village and Banjarsari Village

Source : Research Data Processing Results, 2025

Based on the results of the questionnaire, the average score of respondents from the two villages to the perception of each field of the PPM Program implemented by PT. GGB, can be described as follows.

Education

The scoring results showed that the average score of education was in the range of 3.6–3.7, which means that respondents tended to agree that the education program was in accordance with the needs of the community. Scholarship programs, welfare assistance for honorary teachers, and the procurement of school infrastructure facilities are considered beneficial. However, from the results of the questionnaire, there is also a record of unequal benefits. Some schools or certain groups of students receive more attention than others, giving rise to the perception that the distribution of programs is not completely fair. This is in line with the findings of the study that positive public perception of education programs appears more in villages with adequate school facilities (Lee, 2021).

In addition, respondents emphasized the need for program sustainability so that it is not only short-term. For example, book assistance and learning facilities must be balanced with teacher quality improvement programs and learning innovations. The community considers that the improvement in the quality of educators through training is still minimal compared to physical assistance. This analysis indicates that to answer real needs, the company's educational programs need to balance material assistance with human capacity building. That way, the program not only improves access to education but also the quality of learning.

Health

The health sector received an average score of around 3.5–3.6. Respondents acknowledged that there are real benefits, especially assistance at posyandu, procurement of medicines, and the provision of free health services. This program is very important because

the community around the mine is still vulnerable to stunting, infectious diseases, and limited access to medical services. However, based on respondents' answers, the implementation of the program is considered to be more focused on curative aspects than preventive aspects.

Many people feel that health counseling, healthy lifestyle education, and disease prevention have not received a large portion. This makes the benefits of the program felt short-term, but less supportive of sustainable health. Respondents also revealed that there were communication problems with the company, for example in conveying the need for certain drugs or advanced health services (Abdullah & Santoso, 2022). This means that companies need to strengthen communication mechanisms with the public, as well as increase budgets for promotive-preventive programs. Thus, health benefits will be more in line with the real needs of the community and contribute to long-term health development.

Real Revenue

The average score of the real income field reached 3.7, which is quite high compared to other fields. This shows that respondents consider entrepreneurship, agriculture, livestock, and job training programs in the mining sector to make a real contribution to increasing income. People feel involved in productive activities that can increase family income.

However, the results of the questionnaire also confirm that the impact of the program is not evenly distributed. Some of the trainees still have difficulty accessing capital, marketing networks, and advanced business guidance (Mehta & Widjaja, 2022). Without sustainability support, the skills gained are less likely to be utilized optimally. Respondents hope that companies will not only stop at the training stage, but also provide access to microcapital, marketing assistance, and network facilitation with cooperatives or BUMDes. With this strategy, the benefits of the program can be more in line with the needs of the community, namely a sustainable increase in income, not just temporary.

Economic Independence

The scoring results showed an average score of 3.5–3.7, which means that respondents *quite agreed* that the economic independence program is as needed. Programs such as the formation of MSMEs, PKK skills training, and digital marketing are appreciated because they provide opportunities for business diversification (Alatas et al., 2022). The community sees real benefits in the form of increasing entrepreneurial knowledge and opportunities to open small businesses.

However, there is still criticism that some programs are too oriented towards consumptive assistance, such as the distribution of necessities. This is considered less in line with the goal of economic independence which is supposed to foster financial independence. Respondents assessed that there is a need for more programs that have long-term effects, such as access to digital markets, business incubation, and the formation of village cooperatives. With this kind of support, the community does not only rely on momentary assistance, but can develop a truly independent and sustainable business.

Religious, Social, and Cultural

The average score for this field is 3.6–3.7, indicating a fairly high level of satisfaction. Respondents rated religious, social, and cultural programs in accordance with the needs of local communities who are highly religious and adhere to traditions (Alatas et al., 2022). Assistance for religious activities, the welfare of teachers, and the celebration of holidays were positively welcomed.

However, the community also considers that most of the programs are still consumptive in nature. Ceremonial activities do increase social togetherness, but the economic benefits are limited. From the results of the questionnaire, the public hopes that the company can develop more productive culture-based activities, such as the development of songket crafts, dance arts, or cultural tourism. With this approach, socio-cultural programs not only maintain traditions but also become a new economic source that meets the needs of the community.

Environment

The average score of the environmental field is only about 3.5–3.6, one of the lowest among the eight fields. Respondents assessed that the company's efforts in protecting the environment are still limited, only in the form of waste banks, road watering, and seed distribution. Meanwhile, the main impacts of mining such as dust, water pollution, and land degradation have not been significantly addressed (Garcia, 2021; Firdaus et al., 2021).

The community considers that environmental programs are not proportional to the level of problems they face. This is in accordance with the perception of those who consider the company's involvement in environmental management to be low. Respondents emphasized the need for post-mining land rehabilitation, clean water provision, and agricultural land protection. Thus, the new environmental program is truly in line with the needs of the community, not just symbolic.

Community Institutions

The score of the community institutional field is at 3.6–3.7. Respondents considered that the assistance for youth organizations, scouts, and local community groups was enough to strengthen social solidarity. However, the questionnaire answers also indicate that community institutions are still considered weak in managing programs independently (Hadi et al., 2022).

The community hopes that companies will encourage the formation of more formal and empowered institutions, such as village cooperatives or BUMDes, that can manage funds and programs more transparently. With institutional strengthening, the community is not only a beneficiary, but also a main actor in managing development. This will make the program more in line with the needs of the community while ensuring sustainability.

Infrastructure

The average score of infrastructure is 3.6–3.65, relatively high and stable in both villages. Respondents assessed that the construction of physical facilities such as roads, borewells, schools, and markets was very helpful in daily life. Infrastructure is seen as the program that has the most visible tangible results. Respondents also expressed concerns about maintenance. A lot of infrastructure is built by companies, but when it breaks down or needs maintenance, there's no clarity on who's responsible (Huang, 2021). This poses a risk of the facility becoming dysfunctional in the long term. Therefore, the community emphasizes the need for coordination with the village government so that there is a maintenance scheme. Thus, infrastructure is not only a symbol of development, but really provides sustainable benefits according to the needs of the community.

Synthesis and Alignment with Objectives

The results indicate that PT. GGB's PPM in 2024 achieved moderate alignment with the community's needs, reflected in average scores of 3.5 to 3.7 across all domains. While education, health, and income-generating sectors were appreciated, key challenges persist in equity of distribution, sustainability, and participatory implementation. These findings directly respond to the study's objectives, particularly the goal of assessing the fit between corporate programs and actual community needs (Devina et al., 2022).. They also justify the recommendation to redesign PPM with a stronger emphasis on preventive health, environmental restoration, post-training support, and institutional empowerment elements crucial for sustainable development in mining-affected areas (Rogers & Yulia, 2021).

Recommendations for the Company (PT. GGB)

1. Increase Allocation for Environmental and Preventive Health Programs
Greater focus is needed on post-mining land rehabilitation, clean water provision, nutrition

education, and healthy lifestyle campaigns, as these address the direct impacts of mining activities.

2. **Develop Post-Training Mentorship Schemes**
Training programs should be followed by access to micro-capital, MSME development, and market networks to ensure that acquired skills lead to sustainable income generation.
3. **Reduce Consumptive Programs and Prioritize Productive Initiatives**
Budget allocated to short-term aid (e.g., food packages, ceremonial events) should be redirected to productive activities such as local crafts, modern agriculture, and digital entrepreneurship.
4. **Strengthen Local Institutions**
Support the establishment of cooperatives, village-owned enterprises (BUMDes), or local CSR forums to enable communities to manage, monitor, and sustain programs independently in the long term.
5. **Establish Infrastructure Maintenance Mechanisms**
Every physical development project should include an operational and maintenance plan, in collaboration with village governments and local residents, to ensure long-term functionality.

Recommendations for Beneficiaries (Community)

1. **Enhance Active Participation**
The community should take a more active role in the planning, implementation, and evaluation of PPM to ensure the programs reflect real local needs.
2. **Optimize the Role of Local Institutions**
Youth organizations, women's groups (PKK), BUMDes, and other local institutions should be empowered to serve as key drivers of community development efforts.
3. **Maintain and Utilize Existing Facilities**
Facilities built through the PPM program must be maintained and fully utilized through shared community agreements and collective oversight.
4. **Develop Independent Enterprises**
Training recipients and MSME beneficiaries are expected to grow their businesses consistently, build market networks, and adopt digital technologies to achieve long-term economic independence.

CONCLUSION

The analysis of PT. Golden Great Borneo (GGB)'s 2024 Community Development and Empowerment Program (PPM) in Prabumenang and Banjarsari Villages reveals comprehensive coverage of the eight mandated domains—education, health, real income, economic independence, socio-religious-cultural aspects, environment, community institutions, and infrastructure—with moderate community appreciation (average perception scores of 3.5–3.7), indicating fair alignment with needs. However, challenges persist in equitable benefit distribution, long-term sustainability, and limited community participation in planning and evaluation, particularly in under-resourced environmental and preventive health sectors, while infrastructure and socio-religious programs lack enduring mechanisms despite larger allocations. These findings highlight the need for a more participatory, impact-oriented, and needs-based approach to enhance sustainable empowerment in mining areas. For future research, a longitudinal study could track PPM outcomes over 3–5 years, incorporating quantitative impact metrics (e.g., econometric analysis of income changes) alongside

qualitative stakeholder feedback to evaluate true sustainability and refine policy recommendations. The completion of this research was made possible by financial support from the BIMA Grant of the Directorate of Research and Community Service, Directorate General of Research and Development, Ministry of Higher Education, Science, and Technology of the Republic of Indonesia, 2025.

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