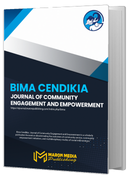

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Evaluating the Social Value of Corporate Social Responsibility through Social Return on Investment (SROI) : A Case Study of the Garitan Kalongliud Program at PT ANTAM (Persero) Tbk Gold Mining Business Unit

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ABSTRACT

Purpose – Despite the increasing implementation of Corporate Social Responsibility (CSR) in the mining sector, empirical evidence quantifying the multidimensional social value generated by integrated community empowerment programs remains limited. This study evaluates the social value created by the Garitan Kalongliud CSR Program implemented by PT ANTAM (Persero) Tbk Gold Mining Business Unit using the Social Return on Investment (SROI) framework.

Design/methods/approach – A qualitative case study combined with the SROI framework was employed. Data were collected through semi-structured interviews, focus group discussions, field observations, and document reviews. The analysis followed the six stages of SROI, including stakeholder identification, Theory of Change development, outcome valuation using financial proxies, impact adjustment, and SROI ratio calculation.

Findings – The program generated significant social, economic, environmental, and wellbeing outcomes. With a total investment of IDR 276,450,415, the program created IDR 1,199,184,896 in social value, resulting in an SROI ratio of 4.34:1, indicating that every IDR 1.00 invested generated IDR 4.34 in social value. Key outcomes included increased household income, reduced agricultural production costs, strengthened farmer institutions, improved community capacity, and greater adoption of sustainable agricultural practices.

Research implications/limitations – This study is limited to a single CSR case in Indonesia, which may restrict the generalizability of the findings. Future research should compare SROI across different mining CSR programs and regions.

Originality/value – This study extends the application of the SROI framework to an integrated circular agriculture CSR program in the mining sector and provides empirical evidence that productive, community-based CSR initiatives create multidimensional social value, offering practical insights for designing more effective and sustainable CSR strategies.

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Introduction

Corporate Social Responsibility (CSR) has evolved from a philanthropic activity into an integral component of corporate strategy. Companies are no longer expected solely to generate economic profits; they are also required to create social value for communities and the environment through responsible business practices. The concept of Creating Shared Value proposed by Porter and Kramer (2011) emphasizes that business success can be achieved alongside improvements in societal well-being through the creation of mutual benefits. Likewise, Carroll (1991) argues that corporate responsibility encompasses economic, legal, ethical, and philanthropic dimensions that should be balanced to meet stakeholders' expectations.

The growing expectations surrounding CSR practices have been accompanied by increasing demands for program accountability. Stakeholders are no longer interested only in the amount of corporate social investment but also in the tangible benefits generated by such investments. Nevertheless, CSR evaluations have largely focused on output indicators, such as the number of training sessions conducted or beneficiaries reached, which often fail to capture the actual changes and social value created by the interventions. Arvidson et al. (2013) noted that organizations are increasingly expected to demonstrate the social value generated through their activities as a basis for accountability and informed decision-making.

The need for impact measurement is particularly critical in the mining industry. As an industry that relies on non-renewable natural resources, mining operations may generate significant social, economic, environmental, and wellbeing impacts on surrounding communities. Consequently, mining companies are expected to contribute to sustainable development, maintain their social license to operate, and prepare communities for post-mining transitions through sustainable livelihood development. Boutilier (2014) argued that legitimacy, credibility, and trust from local communities are fundamental to sustaining mining operations, while Laurence (2006) emphasized that mine closure planning should ensure the long-term resilience of surrounding communities.

To evaluate the effectiveness of corporate social investments, the Social Return on Investment (SROI) framework has been increasingly adopted. SROI measures the social, economic, environmental, and wellbeing value generated by an intervention by assigning monetary values to stakeholder outcomes, enabling organizations to assess the social value created for every unit of investment (Nicholls et al., 2012). Previous studies have demonstrated the usefulness of SROI in evaluating social programs across sectors, including community development, health, education, and environmental initiatives. However, most studies focus on reporting SROI ratios without critically examining how integrated CSR interventions generate multidimensional outcomes for local communities, particularly within mining contexts.

In the mining sector, previous research has primarily examined CSR implementation, stakeholder engagement, environmental management, and community development practices. Although these studies have provided valuable insights into CSR performance, few have quantified the broader social value created by integrated community empowerment programs using the SROI framework, especially in developing countries. Moreover, limited attention has been given to CSR initiatives that simultaneously integrate agriculture, environmental restoration, renewable energy, and institutional strengthening into a single community-based development model.

To address this gap, PT ANTAM (Persero) Tbk Gold Mining Business Unit implemented the Garitan Kalongliud Program, an integrated agriculture-based CSR initiative designed to strengthen food security, improve household income, reduce dependence on mining-related livelihoods, and enhance community resilience through environmentally friendly agricultural innovation and capacity building.

Unlike previous studies that mainly report SROI as a financial indicator, this study evaluates the multidimensional social value generated by an integrated CSR model encompassing economic, environmental, social, and wellbeing outcomes. By applying the SROI framework to the Garitan Kalongliud Program, this study provides empirical evidence on the effectiveness of integrated CSR investments in the mining sector. The findings contribute to the growing literature on impact evaluation by demonstrating how SROI can support evidence-based CSR decision-making while offering practical insights for designing more accountable, sustainable, and community-centered CSR strategies.

Methods

This study employed a qualitative case study design using the Social Return on Investment (SROI) framework to evaluate the social, economic, environmental, and wellbeing impacts of the Garitan Kalongliud Corporate Social Responsibility (CSR) Program implemented by PT ANTAM (Persero) Tbk Gold Mining Business Unit. A case study approach was selected to obtain an in-depth understanding of the program within its real-life context and to assess the social value generated through community empowerment initiatives (Yin, 2018).

The research was conducted in Kalongliud Village, Nanggung District, Bogor Regency, West Java, Indonesia, which is the primary implementation area of the Garitan Kalongliud Program.

The research subjects consisted of stakeholders directly involved in or affected by the program. Informants were selected using purposive sampling, including farmer groups, local communities, village government representatives and CSR management representatives. The researcher acted as the primary research instrument by conducting interviews, facilitating discussions, observing program implementation, and interpreting the collected data.

Primary data were collected through semi-structured interviews, Focus Group Discussions (FGDs), and field observations. Interviews explored stakeholder experiences, perceived program outcomes, and changes resulting from program implementation. FGDs were conducted to validate the identified outcomes, determine stakeholder contributions, and establish assumptions regarding deadweight, attribution, displacement, and drop-off. Observations were undertaken to verify the implementation of program activities and the resulting changes in the community. Secondary data were obtained from CSR reports, social mapping documents, monitoring and evaluation reports, financial records, production records, and other supporting program documentation.

The SROI analysis followed the six stages proposed by Nicholls et al. (2012) and Social Value International (2012): (1) establishing the scope and identifying stakeholders; (2) developing a Theory of Change to map inputs, outputs, outcomes, and impacts; (3) evidencing and valuing outcomes using financial proxies; (4) establishing impact by adjusting for deadweight, attribution, displacement, and drop-off; (5) calculating the SROI ratio; and (6) reporting and embedding the findings.

Result

1.1. Overview of the Garitan Kalongliud Program

The Garitan Kalongliud Program is a Corporate Social Responsibility (CSR) initiative implemented by PT ANTAM (Persero) Tbk Gold Mining Business Unit to promote sustainable community development through an integrated agriculture-based empowerment model. The program was designed to improve community welfare by strengthening food security, increasing household income, reducing dependence on mining-related activities, and preparing local communities for a sustainable post-mining economy.

The program is implemented in Kalongliud Village, Nanggung District, Bogor Regency, West Java, Indonesia, one of the Ring 2 operational areas surrounding ANTAM Gold Mining Business Unit. Prior to the program, the community faced several socioeconomic challenges, including limited employment opportunities, declining agricultural productivity, and dependence on informal mining-related livelihoods. These conditions provided the basis for developing an integrated community empowerment program.

The Garitan Kalongliud Program consists of several interconnected components, including horticultural cultivation, community-based sheep farming, the production of BEKO Liquid Organic Fertilizer (POC) from sheep urine and golden apple snail shells, drip irrigation technology, agricultural capacity building, and the establishment of the Garitan Learning Center as a knowledge-sharing and demonstration facility. These components are integrated through a circular agriculture approach, in which agricultural and livestock waste is recycled into valuable production inputs, improving both environmental sustainability and farming efficiency.

1.2. Stakeholder Identification and Engagement

The implementation of the Garitan Kalongliud Program involved multiple stakeholders who contributed according to their respective capacities and responsibilities. Consistent with the principles of Social Return on Investment (SROI), stakeholder identification is a crucial step to understand who experiences change as a result of the intervention and how value is created through collaborative action (Nicholls et al., 2012). The program adopted a multi-stakeholder approach involving government institutions, community groups, civil society organizations, and the company as the initiator and facilitator of the intervention. The following are the stakeholders involved in the implementation of this program:

No	Stakeholder	Role
1	Government of Kalongliud Village	Facilitated community mobilization, strengthened local legitimacy, aligned the program with village development priorities, and supported coordination among stakeholders.
2	Agricultural Extension Center (BPP) Region 4 District Nanggung	Provided agricultural extension services, technical guidance, mentoring, and dissemination of sustainable farming practices.
3	Farmer Group (Taruna Muda)	Engaged local youth in agricultural activities, supported market linkage initiatives, and promoted youth regeneration in agriculture.
4	Farmer Group (Bengkok Sejahtera)	Beneficiaries and implementers of agricultural programs
5	Farmer Group (Cempaka Dua Pasir Manggu)	Beneficiaries and implementers of agricultural programs
6	Women's Farmer Group (KWT Srikandi Tani Mandiri)	Beneficiaries and implementers of agricultural programs
7	Community of Kalongliud Village	Indirect program beneficiaries
8	Cipta Bina Usaha Lingkungan Hidup Foundation	Providing assistance and institutional strengthening to beneficiary groups

No	Stakeholder	Role
9	PT ANTAM (Persero) Tbk Gold Mining Business Unit	Program initiator and provider of support

Table 1. Stakeholders Involved in the Program
Source: SROI Report of PT ANTAM (Persero) Tbk Gold Mining Business Unit, 2025

1.3. Theory of Change of the Garitan Kalongliud Program

The Theory of Change of the Garitan Kalongliud Program illustrates how PT ANTAM CSR investments were translated into community empowerment activities that generated meaningful changes for stakeholders. The program extended beyond increasing agricultural production by promoting livelihood diversification, strengthening community capacity, encouraging environmentally friendly agricultural innovations, and applying circular economy principles through crop–livestock integration. Collectively, these changes contributed to enhanced food security and greater economic self-reliance among the people of Kalongliud Village.

Tabel 2. Theory of Change of the Garitan Kalongliud Program

Inputs	Activities	Outputs	Outcomes	Impact
CSR funding from PT ANTAM, facilitators, technical support from the Agricultural Extension Center (BPP), farmer participation, irrigation facilities	Development of integrated farming systems and water management training through farmer groups	Water management training conducted; more efficient irrigation systems implemented; improved farmer capacity in water resource management	Farmers are able to manage water resources more effectively; water-use efficiency increases; risk of crop failure due to drought decreases	Restoring agricultural productivity and strengthening village food security
Program funding,	Establishment of	Active farmer	Improved entrepreneu	Increasing community

Inputs	Activities	Outputs	Outcomes	Impact
facilitators, village institutional support	farmer groups and women's farmer groups (KWT) for agricultural and food-processing diversification	groups and women's groups established; diversification training conducted	rial skills; diversified household income sources; increased women's participation	income and economic self-reliance
Technical assistance, livestock waste, snails, agricultural inputs	Innovation of liquid organic fertilizer (LOF) from snails and livestock waste utilization	LOF produced and adopted by beneficiaries; LOF production training conducted	Reduced expenditure on chemical fertilizers; increased adoption of environmentally friendly farming practices	Promoting environmentally sustainable agriculture and improving production cost efficiency
CSR funding, agricultural equipment (cultivators, seeds, fertilizers, pesticides, greenhouse facilities), facilitators	Provision of agricultural inputs and institutional mentoring	Beneficiaries receive agricultural inputs; regular mentoring activities implemented	Increased agricultural productivity; strengthened organizational capacity of farmer groups	Enhancing agricultural productivity and improving farm management effectiveness
CSR funding,	Development of	Rumah Belajar	Improved community	Strengthening

Inputs	Activities	Outputs	Outcomes	Impact
learning facilities, trainers, technical experts	Rumah Belajar Garitan as a non-formal learning center	Garitan operates as a community learning hub; training and group meetings conducted	knowledge and skills; stronger learning networks among groups	community capacity, knowledge, and collaboration for sustainable agricultur
Sheep livestock, livestock waste, agricultural land, technical assistance	Integration of livestock and crop farming through the utilization of livestock waste	Integrated crop–livestock systems implemented; livestock waste converted into agricultural inputs	Reduced waste generation; improved resource efficiency; additional economic benefits for farmers	Reducing waste, increasing resource value, and strengthening the village circular economy

Source: SROI Report of PT ANTAM (Persero) Tbk Gold Mining Business Unit, 2025

1.4. Social Value Analysis

Social value analysis aims to quantify the benefits generated by the Garitan Kalongliud Program by translating observed changes experienced by stakeholders into monetary values using appropriate financial proxies. Following the Social Return on Investment (SROI) framework, each outcome was valued using market prices, avoided costs, or estimated business profits to reflect the economic significance of social and environmental changes. This process enables both tangible and intangible outcomes to be expressed in a common monetary unit, thereby facilitating a comprehensive assessment of the program's social value (Nicholls et al., 2012).

Tabel 3. Social Value Analysis of the Garitan Kalongliud Program

Stakeholder	Observed Impact	Proxy	Impact Value (Million Rupiah)

Farmer Groups (Taruna Muda, Bengkok Sejahtera, Cempaka Dua Pasir Manggu)	Increased agricultural income, reduced production costs, improved farming capacity, access to production capital, increased productivity	Agricultural profit, cost savings, avoided financing costs, replacement cost	992.64
Women's Farmer Group (KWT Srikandi Tani Mandiri)	Increased household income, improved food processing skills, women's economic participation	Additional income, market value of processed products, training replacement cost	92.94
Community of Kalongliud Village	Improved food security, knowledge transfer, environmental improvement, increased local economic activities	Household expenditure savings, avoided environmental costs, willingness-to-pay proxy	113.60
	Overall Impact		1,199.18

Source: SROI Report of PT ANTAM (Persero) Tbk Gold Mining Business Unit, 2025

1.5. Social Return on Investment (SROI)

The Social Return on Investment (SROI) analysis indicates that the Garitan Kalongliud Program generated substantial social value relative to the resources invested by PT ANTAM (Persero) Tbk Gold Mining Business Unit. With a total investment of IDR 276,450,415, the program generated a total social value of IDR 1,199,184,896, resulting in an SROI ratio of 4.34:1. This means that every IDR 1.00 invested generated approximately IDR 4.34 in social, economic, environmental, and wellbeing value for stakeholders.

Discussion

The findings demonstrate that the Garitan Kalongliud Program generated substantial social value, with an SROI ratio of 4.34:1, indicating that every IDR 1.00 invested by PT ANTAM (Persero) Tbk Gold Mining Business Unit created IDR 4.34 in social, economic, environmental, and wellbeing value. According to the SROI framework, a ratio greater than one signifies that the value created exceeds the investment made, reflecting efficient resource allocation and positive societal returns (Nicholls et al., 2012).

The relatively high SROI ratio can be attributed to the program's integrated approach, which combines agricultural innovation, institutional strengthening, environmental conservation, and community capacity building within a single intervention. Unlike conventional CSR programs that primarily provide short-term financial assistance, the Garitan Kalongliud Program focuses on developing sustainable livelihoods through circular agriculture and local economic empowerment. This finding is consistent with Agus (2020), who reported that CSR initiatives emphasizing productive community empowerment generate more sustainable outcomes than philanthropic programs. Similarly, Santoso et al. (2025) highlighted that integrated post-mining CSR programs strengthen community resilience by simultaneously addressing economic, environmental, and social challenges.

The study also shows that the program generated multidimensional outcomes extending beyond increased household income. Improvements in agricultural productivity, reduced production costs, strengthened farmer institutions, enhanced technical knowledge, and environmentally friendly farming practices collectively contributed to greater community resilience. These findings support the sustainable livelihood perspective, which emphasizes that long-term rural development depends on strengthening multiple forms of community capital, including economic, human, social, and natural capital.

Another important finding is that the social value created was distributed across multiple stakeholder groups rather than being concentrated among direct beneficiaries. The Taruna Muda Farmer Group generated the highest social value; however, spillover benefits were also experienced by livestock farmers, neighboring farmer groups, and the wider community through knowledge transfer, improved access to agricultural inputs, and strengthened local economic activities. This multiplier effect is consistent with previous SROI studies demonstrating that community-based empowerment programs often generate indirect benefits beyond the immediate target group (Millar & Hall, 2013; Widhagdha et al., 2025).

From a theoretical perspective, this study extends the application of the SROI framework within the mining sector by demonstrating that integrated agricultural CSR programs can simultaneously create economic, environmental, social, and wellbeing value. The findings also reinforce Stakeholder Theory (Freeman, 1984), which argues that corporate performance should be evaluated based on the value created for multiple stakeholders rather than shareholders alone.

Practically, the results provide evidence that CSR investments focusing on productive livelihoods, technological innovation, institutional strengthening, and environmental stewardship can generate significant social returns while supporting post-mining community resilience. These findings may serve as a reference for mining companies and policymakers in designing more effective and sustainable community development strategies.

Conclusion

This study evaluated the social impact of the Garitan Kalongliud Program using the Social Return on Investment (SROI) framework. The analysis revealed an SROI ratio of 4.34:1, indicating that every IDR 1.00 invested generated IDR 4.34 in social value. The program successfully created multidimensional benefits, including increased household income, improved agricultural productivity, strengthened local institutions, environmental conservation, and enhanced community wellbeing.

The findings demonstrate that integrating community empowerment, sustainable agriculture, and environmental stewardship within a CSR program generates greater social value than conventional philanthropic approaches. The program also illustrates how CSR can contribute to long-term community resilience and support the achievement of several Sustainable Development Goals (SDGs), particularly SDGs 1, 2, 8, 12, and 13.

Despite these positive findings, this study is limited to a single case study and relies on financial proxies that may vary across contexts. Future research is recommended to compare SROI outcomes across different mining CSR programs, employ longitudinal approaches to assess long-term impacts, and integrate quantitative impact evaluation methods to complement the SROI framework.

Declarations

Author contribution statemen

Author 1 contributed to the conceptualization of the study, provided strategic supervision, and critically reviewed the manuscript. Author 2 contributed to the research design, data validation, and manuscript review. Author 3 led the research process, including conceptualization, methodology development, data collection, data analysis, Social Return on Investment (SROI) analysis, interpretation of the findings, manuscript drafting, and revision. Author 4 contributed to field implementation, data collection, data verification, and manuscript review. All authors read and approved the final version of the manuscript.

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Data availability statement

The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request. Access to the data may be subject to approval by PT ANTAM (Persero) Tbk Gold Mining Business Unit due to confidentiality requirements related to internal CSR documentation and participant information.

Declaration of interests statement

The authors are employed by PT ANTAM (Persero) Tbk Gold Mining Business Unit, which implemented the CSR program evaluated in this study. The research was conducted independently, and the authors declare that they have no competing financial interests or personal relationships that could have influenced the work reported in this paper.

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