

Evaluating Corporate Social Responsibility (CSR) Program through the Social Return on Investment (SROI) Approach: A Case Study of Sundung Cisarua Program at PT ANTAM Gold Mining Business Unit

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Abstract. This study aims to analyze the success of the CSR program facilitated by PT ANTAM Gold Mining Business Unit, namely the *Sistem Pengembangan Usaha dan Perlindungan Lingkungan Cisarua* (Sundung Cisarua) Program, using the Social Return on Investment (SROI) approach. This research used a descriptive qualitative approach to evaluate the extent to which the program has a real impact on the community. The analysis results indicate that the program generates an SROI ratio of 5.45, meaning that every IDR 1 invested yields a social return of IDR 5.45. This achievement reflects that the Sundung Cisarua Program provides significant social benefits and also has a positive impact on economic and environmental aspects. Therefore, the program is considered effective and feasible for further development and replication in other areas with similar characteristics.

Keywords: Corporate Social Responsibility, Social Return on Investment, Sundung Cisarua.

A. INTRODUCTION

Corporate Social Responsibility (CSR) plays a strategic role in creating a balance between company profits and the resulting social and environmental values (Kotler & Lee, 2005). According to Wibisono (2007), companies are expected not only to pursue profit but also to actively contribute to creating positive social change through well-directed CSR programs. In Indonesia, CSR is regulated by the government through various legal frameworks, including UU No. 40 of 2007 on Limited Liability Companies and Government Regulation No. 47 of 2012 on Social and Environmental Responsibility. These regulations serve as a moral and legal foundation for corporate commitment to economic development and to improve the quality of life of employees and the broader community. An effective CSR program can support sustainable development by influencing social, economic, and environmental change (Dahlsrud, 2008). According to the Federal Ministry of Labour and Social Affairs (n.d.), CSR is a determining factor in a company's business success, and sustainably run companies are often more successful in the long term.

PT ANTAM Gold Mining Business Unit is one of the strategic operational business units of PT ANTAM Tbk, operating in the gold mining sector in the area of Bantar Karet Village, Nanggung Sub-district, Bogor Regency, West Java. The company's operational activities prioritize not only production efficiency but also the application of high sustainability standards to minimize the environmental impact of mining processes. This is supported by PT ANTAM Gold Mining Business Unit's commitment to contributing to the community through its Corporate Social Responsibility (CSR) programs.

PT ANTAM Gold Mining Business Unit is strongly committed to implementing the principles and goals of sustainable development in all its operations, as stated in UU No. 4 of 2009 on Minerals and Coal, UU No. 40 of 2007 on Limited Liability Companies, UU No. 25

of 2007 on Investment, State-Owned Enterprise Ministerial Regulation No. 05/MBU of 2007, and its latest amendment through Regulation No. PER-09/MBU/07 of 2015. This commitment is part of PT ANTAM Tbk's ongoing efforts to integrate corporate social responsibility in line with the ISO 26000:2010 standard.

The *Sundung Cisarua* Program is one of the CSR initiatives implemented by PT ANTAM Gold Mining Business Unit in Cisarua Village, Nanggung Sub-district, Bogor Regency. This program was initiated in response to several conditions, including the declining interest in farming and livestock raising since the local community became familiar with illegal gold mining activities. On the other hand, the limited employment opportunities in Cisarua Village have created a need for sustainable alternative livelihoods. This has further increased the economic and social vulnerability of certain groups, such as women, including the wives of illegal gold miners. According to UN Women (2020), women in rural areas often face unequal access to decent employment and economic resources, which exacerbates their vulnerability to poverty and economic dependence, especially in regions that rely on informal activities such as mining.

The program includes various activities aimed at improving community welfare and preserving the environment. These activities include sheep farming and the use of livestock waste to produce organic fertilizer. Additionally, the program supports the formation of local community groups such as *Taruna Tani*, *Jarofarm*, *Warnasari Muda*, and *KWT Kemala*, which are engaged in agriculture and food processing. The initiative also established a training center (learning center) focused on sheep farming. This program is expected to reduce the community's reliance on illegal gold mining and foster a more self-reliant and prosperous society.

Initiated in 2021 by PT ANTAM Gold Mining Business Unit, the *Sundung Cisarua* Program continues to evolve through various innovations within its CSR initiatives. To ensure that the program delivers a positive and sustainable impact on community welfare, the company must measure its outcomes. Evaluation is necessary to assess the program's effectiveness and to ensure that the changes observed in the community are truly the result of the interventions made. Therefore, the Social Return on Investment (SROI) approach is used to measure the impact and evaluate the effectiveness of the implemented CSR program, facilitating better evaluation, program improvement, and potential replication in the future. According to Investopedia (2014), SROI benefits corporations by enhancing program management, stakeholder communication, and understanding community impact, which can assist in future investment decisions.

B. METHODS

This research used a descriptive qualitative approach, utilizing secondary data obtained from the SROI study of PT ANTAM Gold Mining Business Unit. Descriptive research aims to describe the characteristics of individuals, conditions, and existing phenomena (Nassaji, 2015). This study adopts a descriptive qualitative approach (Fadillah et al., 2020). Sugiyono (2016:9) explains that the descriptive qualitative method is a research approach based on post-positivist philosophy, used to study natural conditions of the research object (as opposed to experimental methods), in which the researcher acts as the primary instrument.

The Social Return on Investment (SROI) study utilizes data on the changes experienced by stakeholders as a result of the program's implementation. SROI uses the stakeholder perspective to understand the changes that occur, then measures the impact into monetary value (Social Value UK, 2024). This is in line with the statement by Nicholls et al. (2012), which explains that the SROI approach integrates narratives of change from the stakeholders' perspective and then assigns economic value to the resulting social impacts.

The data credibility testing process was carried out using triangulation techniques, which included data and source triangulation to provide justification for the Sundung Cisarua program based on the literature obtained in this study. Patton (1999) states that triangulation is an important strategy for enhancing data validity in qualitative research by comparing various sources of information.

C. RESULT AND DISCUSSION

1. Sundung Cisarua Program

The *Sundung Cisarua* Program, initiated by PT ANTAM Gold Mining Business Unit, aims to empower the community through sustainable livestock and agricultural activities. This program provides concrete solutions to address local economic challenges, including offering alternative livelihoods to reduce illegal gold mining practices. It presents a safer and more productive option by guiding the community toward the agriculture and livestock sectors. In its implementation, the program aims to engage various stakeholders through a *Penta-helix* collaboration model, including local communities, academics, the private sector, the media, and the government (Islamy, Sutisna, & Muchtar, 2024). Each stakeholder plays a different role, aligned with the functions and capacities of their respective institutions. Collaboration among stakeholders is a key aspect that must be considered, as it can significantly influence the quality and effectiveness of the program's implementation (Suherlan et al., 2020). The following are the stakeholders involved in the implementation of this program:

Table 1. Stakeholders Involved in the Program

No	Stakeholder	Role
1	Government of Cisarua Village	The liaison between the program initiators and the beneficiaries provides support to the program through the formulation of village-level policies.
2	Agricultural Extension Center (BPP) Region 4 District Nanggung	Providing assistance and capacity building to the Jarofarm Group, Taruna Tani, Warna Sari Muda, and KWT Kemala
3	Local Community Jarofarm	Beneficiaries and implementers of the sheep farming program
4	Local Community Taruna Tani	Beneficiaries and implementers of agricultural programs
5	Local Community Warna Sari Muda	Beneficiaries and implementers of agricultural programs
6	Local Community Wanita Tani (KWT) Kemala	Beneficiaries and implementers of agricultural programs
7	Community of Cisarua Village	Indirect program beneficiaries
8	Cipta Bina Usaha Lingkungan Hidup Foundation	Providing assistance and institutional strengthening to beneficiary groups
9	PT ANTAM Gold Mining Business Unit	Program initiator and provider of support

Source: SROI Report of PT ANTAM Gold Mining Business Unit, 2024

2. Input Mapping

To evaluate the extent of benefits received by the beneficiaries, the first step taken is to categorize the activities included as program inputs (Rahma et al., 2024). This section explains the various forms of inputs or investments allocated to support the implementation of the program. These inputs include both financial and non-financial

resources utilized to achieve the program's objectives. The input table for the *Sundung Cisarua* Program is as follows:

Table 1. Activities as Determinants of the Input and Process of the Sundung Cisarua Program

No	Year	Activities
1	2021 <i>Assessment</i> program	<ul style="list-style-type: none"> - Distribution of 50 sheep in collaboration with the Cisarua Village Government - Formation of Taruna Tani and Warnasari Muda groups
2	2022 Initial implementation phase	<ul style="list-style-type: none"> - Formation of Jarofarm Group - Technical capacity building for sheep farming - Construction of sheepfold - Training on silage feed production - Construction of a chili seedling house - Chili cultivation
3	2023 Program development	<ul style="list-style-type: none"> - Management of sheep manure waste - Development of 2.7 hectares of agricultural land and a feed bank - Formation of KWT Kemala - Provision of facilities and processing equipment for food production - Training on Home Industry Food Production (PIRT) and Halal certification
4	2024 Strengthening of the program	<ul style="list-style-type: none"> - Formation of sub-district-level livestock institutional network (GAPOKTER) - Development of the Jarofarm learning center - Preparation of training modules - Construction of supporting facilities for the Jarofarm learning center (toilets, warehouse, paving block distribution)

Source: SROI Report of PT ANTAM Gold Mining Business Unit, 2024

3. Economic Aspect Outcomes

The economic impacts resulting from the implementation of the program include the creation of new job opportunities for 73 households who were inspired to pursue farming and sheep farming activities. In addition, the economic impact generated from sheep farming is highly significant. According to data processed from the SROI report conducted by SODEC UGM in 2024, the Jarofarm Group's sheep farming business recorded a net profit of IDR 896,759,131 during the 2022–2023 period. Similarly, the agricultural business of the Warnasari Muda Group achieved a profit of IDR 121,706,684 in the same period. These profits have enabled farmers and livestock breeders to improve their standard of living. Another economic impact can be seen in the average income increase of group members by 53%, from IDR 1,725,000 to IDR 2,650,000. In addition to increasing members' income, the establishment of a feed bank has also reduced Jarofarm Group's operational costs by IDR 200,000 to IDR 300,000 /month.

4. Environment Aspect Outcomes

The environmental impact of the Sundung Cisarua Program can be seen in efforts toward land revitalization and environmental protection. The program has utilized 7.4 hectares of idle land for agricultural activities and the development of a feed bank. Through the Sundung Cisarua innovation, sheep manure from the Jarofarm Group is processed by the Taruna Tani and Warnasari Muda groups into organic fertilizer for their agricultural land, as an effort to reduce the climate impact caused by unmanaged livestock waste.

According to environmental data from a study conducted by Properindo Enviro Tech in 2024, 67.5 tons of sheep manure, or 66% of the total waste generated by Jarofarm livestock was diverted for use as agricultural fertilizer. The analysis showed that the program was able to reduce Global Warming Potential (GWP) by 2.95×10^2 kg CO₂ eq, ozone depletion potential by 1.06×10^{-2} kg CFC11 eq, eutrophication potential by 2.60×10^{-1} kg PO₄ eq, and photochemical oxidation by 1.34×10^{-3} kg C₂H₄ eq. These reductions were attributed to the decrease in CH₄ and N₂O emissions from better sheep manure management (Properindo Enviro Tech Environmental Study, 2024).

In addition, the innovation also sparked collective action for land restoration in the Blok Cibitung Spring area, covering 20 hectares and involving the planting of 4,250 trees. This initiative contributed to improved land cover and generated an environmental impact in the form of carbon absorption amounting to 174.85 tons of CO₂ per year.

5. Social Aspect Outcomes

The implementation of the Sundung Cisarua Program has had a social impact in terms of changing community behavior, with 30 former illegal gold miners (*gurandil*) transitioning to become farmers and livestock breeders. In addition, capacity building and networking have been realized through the transformation of the Jarofarm Group into a sheep learning center that has been recognized by 16 livestock groups in the Nanggung Sub-district. The Jarofarm sheep learning center has become a training hub for 11 villages in the Nanggung area. Its presence has increased the frequency of training sessions from once every three months to monthly training at the Jarofarm learning center.

6. Wellbeing Aspect Outcomes

The program's impact on community welfare is reflected in the improvement of community knowledge. A total of 431 sheep farmers have found it easier to address issues related to market access, breeding, and disease management since the establishment of the Jarofarm learning center. 2,925 residents of Cisarua Village have benefited from easier access to fertilizer, made from livestock waste. Beyond improving community knowledge, the Sundung Cisarua Program has also succeeded in reducing the poverty rate in Cisarua Village by 6,25%. This percentage is based on a comparison of the number of program beneficiaries listed as recipients of the Village Direct Cash Assistance (BLT) in 2024. Of the 48 poor households in Cisarua Village, 3 were beneficiaries of the Sundung Cisarua Program. All three have since risen out of poverty due to increased income from group activities. When comparing the average income of beneficiaries with the Rural Poverty Line of West Java Province for the first semester of 2024 (March), their average income was IDR 2,650,000, exceeding the poverty line of IDR 2,096,208.

7. SROI value analysis

Based on calculations using the Social Return on Investment (SROI) method, the Sundung Cisarua Program invested a total social input of IDR 298,534,000 during the

2021–2024 period and generated social benefits (outcome) of IDR 1,627,698.000 in 2024. Thus, the SROI ratio reached 5.45. meaning that for every IDR 1 invested, a social benefit of IDR 5.45 was generated. This figure indicates that the program is able to generate benefits greater than the costs incurred, and therefore can be considered socially viable (Nicholls et al., 2012).

Overall, the program has had a positive impact across environmental, social, economic, and welfare aspects, with the largest benefit derived from increased profits in sheep farming, followed by contributions to carbon emission reduction and the transition from illegal mining to livestock farming. According to Bryson et al. (2006), the active involvement of various stakeholders such as the community, academics, and the government is key to the successful implementation of collaborative programs. With an approach that emphasizes innovation, collaboration, and sustainability, the Sundung Cisarua program has succeeded in becoming an empowerment model that is not only relevant for Cisarua Village but also replicable in other areas facing similar challenges.

D. CONCLUSION

The Sundung Cisarua Program, initiated by PT ANTAM Gold Mining Business Unit, demonstrates the company's strategic role in creating sustainable economic alternatives for the surrounding community, while also offering a solution to illegal gold mining practices. This initiative not only significantly contributes to environmental preservation but also enhances the community's welfare sustainably. An evaluation of the Sundung Cisarua Program was carried out using the Social Return on Investment (SROI) method, aimed at measuring the extent to which the CSR program implemented by PT ANTAM Gold Mining Business Unit delivers social, economic, and environmental impact. The evaluation results using the Social Return on Investment (SROI) method show that with a total social investment of IDR 298,534,000, the program successfully generated social benefits worth IDR 1,627,698,000, resulting in an SROI ratio of 5.45. This means that for every IDR 1 invested, a social return of IDR 5.45 was achieved. This serves as an indicator that the CSR program is economically effective as well as socially and environmentally viable. Overall, the Sundung Cisarua Program is a tangible example of a multidimensional CSR initiative and can be replicated as a community-based development model in other regions facing similar challenges.

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