

Research Article

BENEFICIARY SATISFACTION WITH A HYDROPOWER COMPANY'S COCONUT AND FISH WASTE VALORISATION PROGRAMME: A COMMUNITY SATISFACTION INDEX ASSESSMENT IN KAMPAR REGENCY, INDONESIA

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ABSTRACT

Corporate community development programmes are widely used to share the benefits of energy and resource operations with local communities, yet beneficiary-centred evaluations from the hydropower sector remain scarce. This study assessed beneficiary satisfaction with a coconut and fish waste valorisation programme implemented by a hydropower company in Kampar Regency, Indonesia. Structured face-to-face interviews were conducted with 52 beneficiary representatives in August 2026 using a four-point Likert-type questionnaire covering thirteen elements across three aspects: the overall programme, programme management, and programme delivery and service. Responses were converted into an equal-weight Community Satisfaction Index on a 0–100 scale. The total index reached 87.19, indicating that beneficiaries were very satisfied. Delivery and service scored highest at 89.66, led by the company's responsiveness to community feedback, followed by programme management at 86.88 and the overall programme at 85.03. Income gains were rated most favourably among the perceived benefits, whereas environmental improvement attracted the largest share of less favourable ratings. Participation was stronger in implementation than in planning and evaluation, and facilitators were valued more for community closeness than technical competence. High satisfaction coexisted with continued demand for support, indicating that strengthened participatory planning, technical facilitation and measurable environmental outcomes are needed to secure community self-reliance.

Keywords: community satisfaction index, corporate social responsibility, community development, hydropower, waste valorisation, circular economy.

INTRODUCTION

Corporate social responsibility (CSR) has moved a long way from its philanthropic origins. Early CSR was largely charitable and detached from core business activity, whereas contemporary practice treats social and environmental engagement as a planned, structured strategy that is embedded in daily operations and linked to the long-term viability of the firm. The business case literature shows that well-designed CSR can reduce operational and reputational risk, strengthen legitimacy and generate shared value for firms and society (Carroll & Shabana, 2010). In developing countries, however, CSR operates under distinctive institutional conditions, including weak state capacity, informal governance arrangements and acute development needs, so that companies are frequently expected to deliver public goods that would elsewhere be provided by government (Jamali & Karam, 2018). Indonesia illustrates this expectation particularly clearly. It was among the first countries to make CSR a legal obligation: Law No. 40/2007 on Limited Liability Companies, Article 74, requires companies whose business relates to natural resources to implement social and environmental responsibility, although ambiguity about what compliance entails has created persistent problems of interpretation and implementation (Waagstein, 2011).

Within this regulatory and developmental context, community development has become the dominant form of CSR in resource- and energy-based industries. Recent Indonesian evidence suggests that programmes succeed when they mobilise local social capital, which

increases participation, reduces uncertainty, sustains motivation and encourages knowledge sharing among beneficiaries (Rudito *et al.*, 2023). At the same time, a substantial critical literature cautions that corporate development initiatives often fall short of their promise. Studies of multinational oil companies have shown that CSR projects are frequently designed top-down, driven by business rather than developmental priorities, and abandoned or left unsustainable once corporate attention shifts (Frynas, 2005). The concept of a "social licence to operate" has likewise been criticised for encouraging firms to pursue community acceptance as a means of reducing opposition rather than as a genuine commitment to local well-being (Owen & Kemp, 2013). Together, these strands of research indicate that the developmental value of CSR cannot be assumed; it must be demonstrated through credible evaluation.

The central problem is therefore one of accountability and learning. Community development programmes commonly fail through a mismatch between programme design and the actual needs of target communities, inappropriate selection of partner organisations and stakeholders, and weak or absent monitoring and evaluation (M&E) (Frynas, 2005). The most visible symptoms are programmes that stop midway, interventions that leave no measurable change compared with conditions before implementation, and beneficiary groups that remain dependent on corporate support after the company withdraws. Without systematic M&E, companies have little evidence with which to distinguish activities that should be continued and replicated from those that require correction, and communities have few formal channels through which to express criticism and expectations.

A general response to this problem is to place beneficiaries at the centre of programme design and evaluation. Participation theory holds that the developmental effect of an intervention depends on the

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degree of control that citizens exercise, ranging from manipulation and tokenism at the lower rungs of the ladder to partnership and delegated power at the upper rungs (Arnstein, 1969). In parallel, service-quality research offers established instruments for capturing users' perceptions. Performance-based measurement, which evaluates perceived performance without subtracting prior expectations, has been shown to provide a parsimonious and reliable basis for assessing service quality and its relationship with satisfaction (Cronin & Taylor, 1992). Applied to the public sector, such instruments have revealed that human-related dimensions, particularly assurance and empathy, exert the strongest influence on citizen satisfaction, and that satisfaction varies systematically with age, education and occupation (Psomas *et al.*, 2024). Beneficiary satisfaction thus provides a practical, perception-based indicator of whether a programme is relevant, well managed and fairly delivered. Because it is inexpensive to collect and readily interpretable by both company managers and community members, it can also serve as a recurring feedback mechanism within routine M&E cycles rather than as a one-off assessment.

In Indonesian CSR practice, this logic has been operationalised through the Community Satisfaction Index (CSI), adapted from the national public-service satisfaction survey regulated by the Ministry of Administrative and Bureaucratic Reform (Ministry of Administrative and Bureaucratic Reform, 2017). Recent CSI assessments of community development programmes run by a state-owned tin mining company report converted indices of 85.47 for a holistic waste management and environmental education programme (Ramadan *et al.*, 2025a) and 85.63 for an inclusive community empowerment programme in coastal West Bangka (Ramadan *et al.*, 2025b). Both studies disaggregated satisfaction into overall programme quality (relevance, benefits and sustainability), programme management (participation, stakeholder synergy and facilitator performance) and programme delivery and service (clarity, reliability, fairness and responsiveness). They found that beneficiaries valued environmental and knowledge gains highly, rated economic benefits more modestly, and continued to request capacity building before they could operate independently (Ramadan *et al.*, 2025a, 2025b).

A second, more specific line of solutions concerns the content of community programmes. Circular economy thinking, which emphasises reducing, reusing, recycling and recovering materials across production and consumption systems (Kirchherr *et al.*, 2017), has increasingly been translated into community-based enterprises that convert local waste streams into marketable products. Coconut residues such as husk, coir and shell are lignocellulosic materials with demonstrated potential for horticultural media, fibre products, fuels and other value-added applications (Vieira *et al.*, 2024). Fish processing generates comparable opportunities: a large share of harvested fish biomass is discarded as by-products, yet these residues are rich in proteins, lipids and other compounds that can be recovered for food, feed, fertiliser and industrial uses (Coppola *et al.*, 2021). For rural communities, waste valorisation programmes therefore promise a dual benefit, namely improved local environmental quality and new sources of household income, which aligns closely with the objectives of corporate community development.

Literature closely related to the present study nevertheless leaves important gaps. Hydropower developers are increasingly expected to share benefits with communities living in project-affected areas, and benefit sharing has been conceptualised as a long-term sustainability intervention that requires participatory decision-making and gradual capacity building (Schulz & Skinner, 2022). Comparative evidence from 33 large dams in the Global South shows that hydropower

development has tended to erode the natural, social, human and financial capital of local people, with a lack of community participation in decision-making emerging as a key pathway to negative outcomes (Castro-Diaz *et al.*, 2023). Yet beneficiary-centred evaluations of the community development programmes that hydropower operators now run remain scarce. Existing CSI studies of Indonesian CSR are concentrated in the mining sector (Ramadan *et al.*, 2025a, 2025b), are predominantly descriptive, and have not examined programmes built around agro-fishery waste valorisation. Consequently, it remains unclear whether the high satisfaction levels reported for mining-sector programmes also hold for hydropower-sector programmes, and which programme elements most require strengthening to secure sustainability after corporate exit.

This study addresses these gaps by evaluating beneficiary satisfaction with LENTERA (Limbah Kelapa dan Ikan untuk Ekonomi Terampil dan Sejahtera, or Coconut and Fish Waste for a Skilled and Prosperous Economy), a community development programme implemented by PT PLN Nusantara Power UP Pekanbaru, ULPLTA Koto Panjang, a hydropower generation unit in Kampar Regency, Riau Province, Indonesia. The objectives are threefold: to measure the level of beneficiary satisfaction across the overall programme, programme management, and programme delivery and service; to assess the perceived benefits of the programme for knowledge, skills, environmental quality and income; and to identify elements requiring improvement to support community independence. The study is novel in extending CSI evidence from mining to the hydropower sector and in evaluating a circular-economy, waste-to-value programme through a beneficiary-satisfaction lens. Building on previous findings (Ramadan *et al.*, 2025a, 2025b), it was expected that a participatory, facilitator-supported programme would achieve a "very satisfied" rating across all three aspects. The scope is limited to a cross-sectional survey of 52 beneficiary representatives conducted in August 2026, and the analysis focuses on perceived satisfaction rather than independently measured socio-economic or environmental outcomes.

METHODOLOGY

Study Area and Survey Period

The study was conducted in the community development area of PT PLN Nusantara Power UP Pekanbaru, ULPLTA Koto Panjang, a hydropower generation unit located in Kampar Regency, Riau Province, Indonesia. The LENTERA programme is implemented in the communities surrounding the company's operational area and focuses on utilising coconut and fish waste to build a skilled and economically prosperous community. The satisfaction survey was carried out in August 2026, and a focus group discussion combined with questionnaire administration took place on 3 August 2026. The survey formed part of the company's periodic monitoring and evaluation (M&E) of its community development portfolio, and the assessment was prepared by an external party, PT Sucofindo (Persero).

Respondent Selection

Respondents were drawn from representatives of the community groups that received support under the LENTERA programme. Because the survey targeted programme beneficiaries rather than the general public, respondents were selected purposively from among these group representatives, all of whom had direct experience of programme activities. A total of 52 beneficiaries participated in the survey. This approach is consistent with previous Community Satisfaction Index (CSI) assessments of corporate community

development programmes in Indonesia, which surveyed 49 and 75 direct beneficiaries, respectively (Ramadan *et al.*, 2025a, 2025b). Respondent characteristics, including age, highest level of education, occupation and monthly personal income, were recorded to describe the profile of the beneficiary population and to contextualise the satisfaction results. Respondents are reported anonymously in this article.

Data Collection

Data were collected through structured face-to-face interviews guided by a questionnaire. Interviews were used instead of self-administered questionnaires to ensure that every item was understood consistently by respondents with diverse educational backgrounds, a consideration that is important when a substantial proportion of beneficiaries have completed only primary or junior secondary education. The questionnaire comprised closed questions for computing the CSI and open-ended questions for eliciting additional information, including perceived benefits, criticisms, suggestions and expectations regarding the future of the programme.

The closed questions were designed to evaluate three aspects of the programme, namely the overall programme, programme management, and programme delivery and service. These aspects were operationalised through thirteen elements, as summarised in Table 1. The overall programme aspect captured the relevance of the programme to community problems and potential, its benefits in terms of knowledge, skills, environmental quality and income, and its sustainability in terms of continuity and community readiness to continue without company assistance. The programme management aspect captured community participation in planning, implementation and M&E, synergy between the company and other stakeholders, and the performance of field facilitators or community development officers in terms of closeness to the community, adaptability, responsibility and technical competence. The delivery and service aspect captured the accuracy and clarity of programme methods, their reliability, fairness in targeting and distribution, and the responsiveness of the company to criticism and suggestions. This three-aspect structure follows the framework applied in earlier CSI studies of Indonesian CSR programmes (Ramadan *et al.*, 2025a, 2025b) and parallels the performance-based logic of service-quality measurement, in which users evaluate perceived performance directly rather than the gap between expectations and performance (Cronin & Taylor, 1992; Psomas *et al.*, 2024).

Table 1 Aspects and elements used to measure the Community Satisfaction Index of the LENTERA programme

Aspect	Elements
Overall programme	Programme relevance; programme benefits (knowledge, skills, environmental quality, income); programme sustainability (continuity, readiness for independence)
Programme management	Community participation (planning, implementation, M&E); stakeholder synergy; facilitator closeness to the community; facilitator adaptability; facilitator responsibility; facilitator competence
Programme delivery and service	Accuracy and clarity of methods; reliability of methods; fairness; responsiveness

Each closed item was rated on a four-point Likert-type scale (1 = not satisfied, 2 = less satisfied, 3 = satisfied, 4 = very satisfied), with response labels adapted to the wording of each item (for example, from "not relevant" to "highly relevant"). An even-numbered scale without a neutral midpoint was used, as in previous CSI surveys (Ramadan *et al.*, 2025a, 2025b), to encourage respondents to

express a directional judgement. Such scales reduce the tendency to select a non-committal middle category, but they may also force a choice among respondents who are genuinely indifferent, a trade-off that has been discussed extensively in the literature on response options and potential bias (Kusmaryono *et al.*, 2022).

Data Processing

Survey responses were tabulated in Microsoft Excel and processed following the standard CSI procedure used for Indonesian public-service and CSR satisfaction surveys (Ministry of Administrative and Bureaucratic Reform, 2017; Ramadan *et al.*, 2025a, 2025b). First, the mean score of each question was calculated as the total score for that question divided by the number of completed questionnaires (Eq. 1). Second, each question was assigned an equal weight equal to the reciprocal of the number of questions (Eq. 2). Third, the weighted mean score of each question was obtained by multiplying its mean score by its weight (Eq. 3). The CSI was then calculated as the sum of the weighted mean scores, yielding a value between 1 and 4, and converted to a 0–100 scale by multiplying it by 25 (Eq. 4).

$$M_i = (\sum_{j=1}^n x_{ij}) / n \quad (1)$$

$$w_i = 1 / k \quad (2)$$

$$WM_i = M_i \times w_i \quad (3)$$

$$CSI = \sum_{i=1}^k WM_i, \quad CSI_{converted} = CSI \times 25 \quad (4)$$

Where x_{ij} is the score given by respondent j to question i , n is the number of completed questionnaires, and k is the number of questions within the aspect being evaluated. Indices were computed separately for each of the three aspects, and the total CSI corresponds to the mean of the three aspect indices. The converted index was interpreted according to the four satisfaction categories presented in Table 2. These equal-interval categories follow previous CSR applications of the index (Ramadan *et al.*, 2025a, 2025b) and differ from the service-quality bands of the national guideline, which classify converted values of 76.61–88.30 as good (grade B) and 88.31–100.00 as very good (grade A) (Ministry of Administrative and Bureaucratic Reform, 2017).

Table 2 Interpretation of the converted Community Satisfaction Index

Converted CSI	Category
0.00–25.00	Not satisfied
25.01–50.00	Less satisfied
50.01–75.00	Satisfied
75.01–100.00	Very satisfied

Data Analysis

The processed data were analysed quantitatively and qualitatively. Quantitative analysis consisted of frequency distributions and percentages for respondent characteristics and for the response categories of each element, together with the aspect-level and total CSI values, presented in tables and figures. Several elements were measured with more than one questionnaire item; for these elements, the response distributions shown in the figures refer to the first item. Because Likert-type responses are ordinal, percentages of respondents in each category were reported alongside the index values, so that the distribution of responses, and particularly the share of less favourable ratings, remained visible rather than being concealed by the mean (Jamieson, 2004). Responses to the open-ended questions were reviewed and grouped into recurring themes

concerning perceived benefits, constraints and expectations, and these themes were used to interpret the quantitative results. Internal consistency of the scale could not be assessed in the present study because only aggregated item results were available; future applications of the instrument should report reliability coefficients such as Cronbach's alpha computed from respondent-level data. In addition, because satisfaction, benefits and programme performance were all reported by the same beneficiaries in a single interview, the results may be subject to common method and social desirability biases (Podsakoff *et al.*, 2003). These potential biases were considered when interpreting the findings and are addressed further in the Discussion.

RESULTS

Respondent Profile

A total of 52 beneficiaries of the LENTERA programme participated in the survey. Their characteristics are summarised in Fig. 1. The respondents were predominantly of working age: 31 respondents (60%) were aged 26–45 years, 11 (21%) were younger than 26 years and 10 (19%) were aged 46–65 years, with ages ranging from 19 to 59 years. No respondent was older than 65 years. In terms of education, senior secondary school was the most common level of attainment (27 respondents, 52%), followed by junior secondary school (13, 25%), a bachelor's degree (9, 17%), primary school (2, 4%) and a three-year diploma (1, 2%). All respondents had therefore received at least primary education, and approximately one in five held a tertiary qualification.

The occupational profile reflected the rural setting of the programme. Farmers formed the largest group (17 respondents, 33%), followed by homemakers (12, 23%) and self-employed individuals or traders (12, 23%). The remaining respondents were teachers (5, 10%), contract workers (3, 6%), and one each (2%) private employee, university student and driver. Thirteen respondents (25%) reported a monthly personal income below IDR 1 million, 12 (23%) between IDR 2.0 and 2.9 million, 16 (31%) between IDR 3.0 and 3.9 million, 10 (19%) between IDR 4.0 and 5.0 million and only one (2%) above IDR 5 million; no respondent reported an income between IDR 1 and 2 million. Twelve of the 13 respondents in the lowest income category were homemakers who reported no personal income of their own; the income figures should therefore be interpreted as individual rather than household earnings. Taken together, the profile indicates that the programme reached a beneficiary group composed largely of working-age farmers, women engaged in domestic work and small-scale entrepreneurs with secondary education and modest incomes.

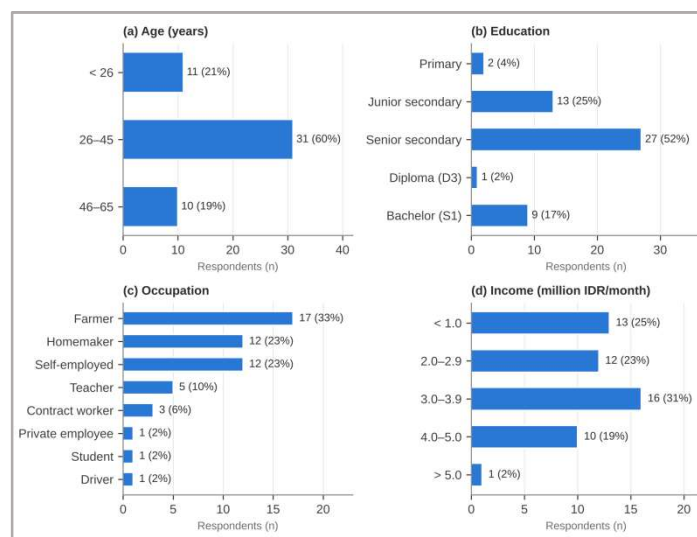


Fig. 1 Profile of LENTERA programme respondents (n = 52): (a) age, (b) highest level of education, (c) occupation and (d) monthly personal income

Community Satisfaction Index

The CSI was calculated separately for the overall programme, programme management, and programme delivery and service, and the three aspect indices were then combined into a total index. The results for each aspect are presented in the following subsections and summarised in Table 3.

Overall Programme

Satisfaction with the overall programme was assessed through programme relevance, programme benefits and programme sustainability. The distribution of responses for each element is shown in Fig. 2. All respondents considered the programme at least somewhat relevant to the problems and potential of their community. Of the 52 respondents, 22 (42%) rated the programme as highly relevant, 28 (54%) as relevant and 2 (4%) as less relevant, while none rated it as not relevant. Respondents generally agreed that the programme offered solutions to local problems and helped to develop existing community potential.

Programme benefits were evaluated in four dimensions. For knowledge, 40% of respondents reported a substantial increase, 56% an increase and 4% only a slight increase. For skills, the corresponding proportions were 38%, 58% and 4%. Improvements in environmental quality were rated as substantial by 46% of respondents and as present by 48%, whereas 6% perceived only a slight improvement, the largest share of less favourable ratings among the benefit dimensions. Income gains received the most positive distribution of the four: 50% of respondents reported a substantial increase in income, 46% an increase and 4% only a slight increase. Respondents attributed these gains to the sale of products generated through programme activities.

Programme sustainability was examined through the continuity of programme activities and the readiness of beneficiaries to continue the programme without company assistance. Continuity was rated highly, with 60% of respondents describing the programme as highly continuous, 34% as continuous and 6% as less continuous. Readiness for independence was similarly high: 44% of respondents stated that they were very ready to run the programme without guidance from the company, 53% that they were ready and 3% that they were less ready. Respondents explained this readiness by

reference to community initiatives to develop programme activities further, and they reported that they had already shared the knowledge and skills obtained through the programme with family members, neighbours and the wider community.

Combining relevance, benefits and sustainability, the CSI for the overall programme was 3.401, corresponding to a converted index of 85.027 and falling within the "very satisfied" category (Table 3). Although this was the lowest of the three aspect indices, it remained well above the 75-point threshold for the highest satisfaction category.

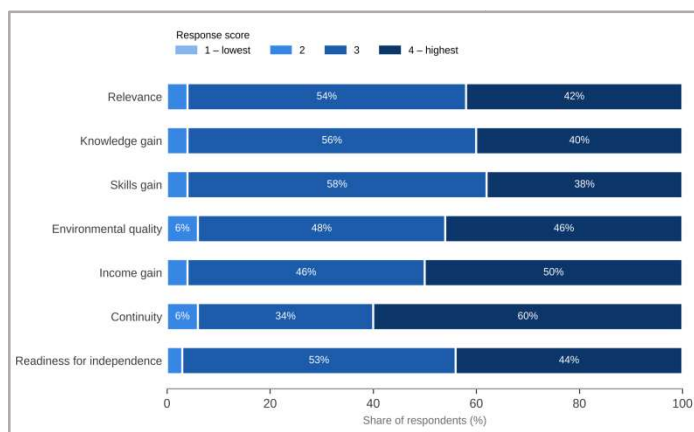


Fig. 2 Distribution of responses for the overall programme aspect of the LENTERA programme (n = 52). Score 1 denotes the least favourable and score 4 the most favourable response for each element

Programme Management

Satisfaction with programme management was assessed through community participation, stakeholder synergy and facilitator performance (Fig. 3). Community participation was rated positively at every stage of the programme cycle. In planning, 54% of respondents rated the company's efforts to involve the community as very good, 40% as good and 6% as less good. Participation in implementation received the most favourable assessment, with 58% rating it as very good and 42% as good, and no respondent giving a lower rating. Participation in M&E was rated very good by 50%, good by 44% and less good by 6%. Respondents linked their positive assessment of M&E involvement to the regular visits made by the company to programme groups.

Stakeholder synergy was rated favourably by all respondents, with 55% considering the company able, and 45% highly able, to collaborate with other stakeholders. Respondents noted that the company consistently communicated and cooperated with local leaders and stakeholders during the planning, implementation and evaluation of the programme. Facilitator performance was likewise rated as good or very good by every respondent across all four indicators. Closeness to the community received the highest share of very good ratings (54%), and all respondents reported that they knew the facilitators well. Adaptability was rated very good by 44% and good by 56%, and responsibility was rated very good by 46% and good by 54%. Technical competence, although positively assessed by all respondents, received the lowest share of very good ratings (38%), with the remaining 62% rating it as good.

The resulting CSI for programme management was 3.475, corresponding to a converted index of 86.882 in the "very satisfied" category (Table 3). Across the management elements, less

favourable ratings were confined to the planning and M&E stages of participation, each accounting for 6% of responses.

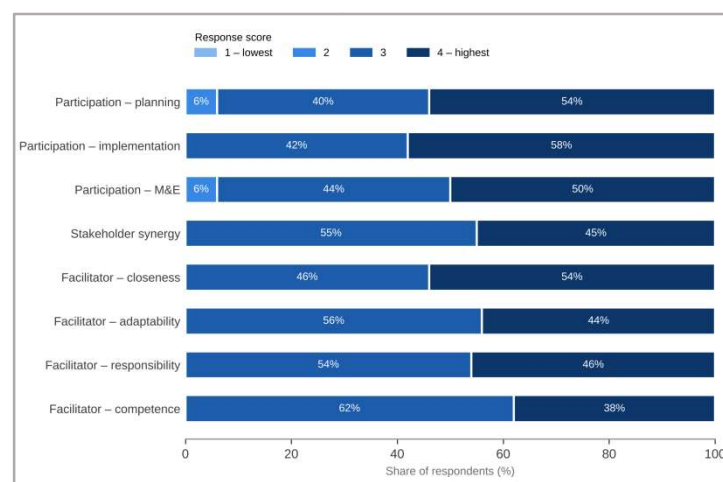


Fig. 3 Distribution of responses for the programme management aspect of the LENTERA programme (n = 52)

Programme Delivery and Service

Programme delivery and service were assessed through the accuracy and clarity of programme methods, their reliability, fairness and responsiveness (Fig. 4). Regarding accuracy and clarity, 61% of respondents considered the programme methods highly appropriate to the conditions and characteristics of the target community 35% considered them appropriate and 4% considered them less appropriate. All respondents considered the methods reliable, 53% rating them as highly reliable and 47% as reliable. Fairness, assessed in terms of the accuracy of targeting and the equitable distribution of benefits among recipients, was rated as highly appropriate by 58% and appropriate by 42% of respondents. Responsiveness, reflecting the company's handling of criticism, input and suggestions, received the most favourable distribution of all elements in the survey, with 66% of respondents rating it as very good and 34% as good.

The CSI for programme delivery and service was 3.587, corresponding to a converted index of 89.663, the highest of the three aspects and within the "very satisfied" category (Table 3). Apart from the two respondents (4%) who considered the programme methods less appropriate, no respondent assigned a score below 3 to any delivery and service element.

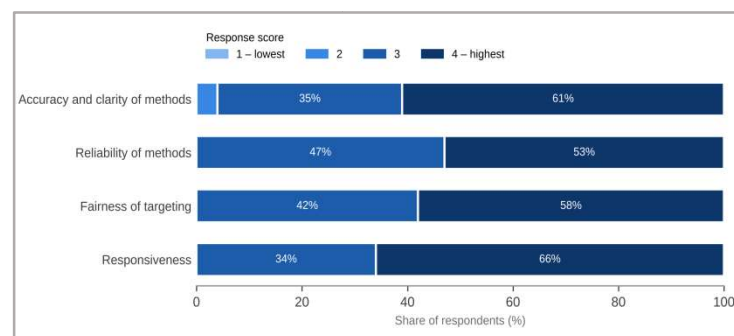


Fig. 4 Distribution of responses for the programme delivery and service aspect of the LENTERA programme (n = 52)

Total Community Satisfaction Index

The total CSI of the LENTERA programme was 3.488, corresponding to a converted index of 87.191, which places overall beneficiary

satisfaction in the "very satisfied" category (Table 3). The three aspect indices were closely clustered, spanning less than five points on the converted scale, and followed a consistent order in which programme delivery and service scored highest, programme management intermediate and the overall programme lowest. The expectation that all three aspects would reach the "very satisfied" category was therefore met.

Table 3 Community Satisfaction Index of the LENTERA programme by aspect (n = 52)

Aspect	Index value (1–4)	Converted CSI (0–100)	Category
Overall programme	3.401	85.027	Very satisfied
Programme management	3.475	86.882	Very satisfied
Programme delivery and service	3.587	89.663	Very satisfied
Total	3.488	87.191	Very satisfied

Responses to the open-ended questions complemented these quantitative results. Beneficiaries expressed a strong wish for the company to continue the programme until the community is fully capable of developing LENTERA into an independent and sustainable business entity. Their principal expectations concerned the strengthening of capacity to manage programme activities and the provision of further training in human resource development on a continuing basis. These expectations coexisted with the high readiness for independence reported in Section 3.2.1, suggesting that beneficiaries regarded independence as an achievable goal but one that still required structured support in the transition period.

DISCUSSION

Satisfaction Levels Relative to Mining-Sector Community Development Programmes

The total CSI of 87.191 places the LENTERA programme firmly in the "very satisfied" category and slightly above the values reported for two community development programmes of a state-owned tin mining company evaluated with the same instrument, namely 85.470 for the BESAOH waste management programme (Ramadan *et al.*, 2025a) and 85.625 for the MENJAGA NUSANTARA programme (Ramadan *et al.*, 2025b). The three programmes therefore fall within a narrow band of approximately 85–88 points, which suggests that well-established Indonesian CSR programmes tend to converge on high satisfaction regardless of sector or thematic focus. This convergence is itself informative. It indicates that the CSI is useful for confirming that a programme has not failed in the eyes of its beneficiaries, but that its discriminating power among reasonably well-run programmes is limited, a point that is developed further in Section 4.4.

The internal ranking of aspects is more revealing than the total score. In the LENTERA programme, delivery and service scored highest (89.663), whereas in MENJAGA NUSANTARA programme management scored highest (87.375) and the overall programme lowest (84.167) (Ramadan *et al.*, 2025b), and in BESAOH the overall programme scored highest (85.884) and management lowest (84.885) (Ramadan *et al.*, 2025a). LENTERA thus shares with MENJAGA NUSANTARA a relatively weaker rating for programme substance compared with process-related aspects. This pattern implies that beneficiaries were more satisfied with how the company engaged with them than with what the programme had so far delivered. In the LENTERA case, the most favourable single element was the company's responsiveness to criticism and suggestions,

rated very good by 66% of respondents. This differs from evidence in public service settings, where responsiveness has shown the lowest perceived quality among the service dimensions (Psomas *et al.*, 2024), and suggests that the close, relationship-based delivery model typical of corporate community development may be particularly effective at making beneficiaries feel heard.

Benefits, Participation and Facilitation

The distribution of perceived benefits differed from the pattern reported for mining-sector programmes. Half of the LENTERA respondents reported a substantial increase in income, compared with 28% in MENJAGA NUSANTARA, where income was the weakest benefit dimension and environmental quality the strongest (Ramadan *et al.*, 2025b). In LENTERA, by contrast, environmental quality attracted the largest share of less favourable ratings among the benefit dimensions. A plausible explanation lies in the programme's waste-to-value design. Coconut and fish residues can be converted into marketable products (Coppola *et al.*, 2021; Vieira *et al.*, 2024), so the economic return of valorisation is visible to households, while the environmental effect of diverting these residues may be diffuse and harder for individuals to perceive. Circular economy initiatives are often reduced in practice to the recovery of value from waste, with less attention paid to the reduction and system-level change that deliver broader environmental benefits (Kirchherr *et al.*, 2017). Programme designers should therefore complement income-oriented activities with explicit and communicable environmental indicators.

Participation results point to a familiar asymmetry. Every respondent rated participation in implementation as good or very good, whereas 6% rated participation in planning and in M&E as less good. Implementation is the stage at which beneficiaries contribute labour and time, while planning and evaluation are the stages at which decisions are made. In the terms of the participation ladder, high engagement in implementation without equivalent influence over planning and evaluation may correspond to the partnership rungs only partially (Arnstein, 1969). Comparative evidence from hydropower projects shows that a lack of community participation in decision-making is a key pathway to negative livelihood outcomes (Castro-Diaz *et al.*, 2023), and benefit sharing has been characterised as requiring a gradual transfer of control over decisions to affected communities (Schulz & Skinner, 2022). Strengthening community roles in planning and in participatory M&E is therefore the most direct lever for improving the management aspect further.

Facilitators were rated positively by all respondents, with closeness to the community receiving the highest share of very good ratings and technical competence the lowest. This profile is consistent with evidence that human-related service dimensions are central to satisfaction (Psomas *et al.*, 2024) and with the role of social capital in fostering participation, motivation and knowledge sharing in Indonesian CSR programmes (Rudito *et al.*, 2023). The respondents' reports of having shared programme knowledge with family members and neighbours illustrate this mechanism. The relatively lower rating for technical competence nevertheless indicates that, as programme activities move towards product processing and marketing, facilitation may require specialised technical and business expertise in addition to strong social relations.

Readiness for Independence and the Risk of Dependence

A total of 97% of respondents declared themselves ready or very ready to continue the programme without company assistance, a higher share of very ready responses than reported for MENJAGA

NUSANTARA (Ramadan *et al.*, 2025b). Yet the same respondents asked the company to continue its support until LENTERA could operate as an independent business entity, an expectation also voiced by BESAHO beneficiaries, all of whom stated that they still required company assistance (Ramadan *et al.*, 2025a). Declared readiness and continued demand for support are therefore not contradictory but indicate that beneficiaries perceive independence as a goal that has not yet been fully secured. Critical studies of corporate development have shown that programmes frequently become unsustainable when corporate attention shifts (Frynas, 2005), and that firms may pursue community acceptance primarily to secure their own operational stability (Owen & Kemp, 2013). High satisfaction should consequently not be equated with a durable social licence or with institutional self-reliance. A staged exit strategy, with explicit milestones for group management, financial record-keeping and market access, would allow the company to verify readiness for independence rather than relying on self-reported readiness alone.

Methodological Considerations and Limitations

Several limitations qualify these findings. First, all elements were rated in the upper two response categories by at least 94% of respondents, indicating a ceiling effect that limits the instrument's capacity to distinguish between good and excellent performance. Second, satisfaction was reported by direct beneficiaries in face-to-face interviews concerning a programme funded by the company and analysed by a team that includes staff of the implementing company, which creates a risk of social desirability and courtesy bias and of common method variance, because benefits, performance and satisfaction were all reported by the same respondents in a single encounter (Podsakoff *et al.*, 2003). Third, the four-point scale without a midpoint forces a directional response and may inflate positive ratings when respondents are genuinely indifferent (Kusmaryono *et al.*, 2022). Fourth, the CSI treats ordinal responses as interval data when computing means (Jamieson, 2004), and because only aggregated item results were available, internal consistency could not be assessed and differences between demographic groups, which are known to affect satisfaction (Psomas *et al.*, 2024), could not be tested. Fifth, the cross-sectional design, purposive sample of 52 representatives and absence of a comparison group preclude causal inference about programme effects. Sixth, the equal-interval categories adopted here are more lenient than the service-quality bands of the national guideline, under which the overall programme, programme management and total indices (85.03–87.19) would correspond to grade B (good) and only delivery and service (89.66) to grade A (very good) (Ministry of Administrative and Bureaucratic Reform, 2017). Finally, the education level of one respondent was classified differently in the respondent list and in the tabulated summary of the source report; the respondent-level list was used in this study.

Future evaluations should collect respondent-level data to enable reliability analysis, analysis of the factors that drive satisfaction and comparisons between demographic subgroups. They should also triangulate perceived benefits with objective indicators such as quantities of waste processed, product sales and household income before and after participation, and repeat the survey over time to track the trajectory towards independence. Combining the CSI with methods such as social return on investment or longitudinal livelihood assessment would allow companies to move from measuring satisfaction to demonstrating impact.

CONCLUSION

Beneficiaries of the LENTERA programme expressed a very high level of satisfaction, with a total converted CSI of 87.191 and all three aspects exceeding 85 points. Satisfaction was strongest for programme delivery and service, driven above all by the company's responsiveness to community criticism and suggestions, and weakest, although still very high, for the substance of the programme itself. Perceived income gains were particularly strong, whereas improvements in environmental quality were the benefit most often rated as only slight. Within programme management, community involvement was rated more favourably in implementation than in planning and monitoring and evaluation, and facilitators were valued more for their closeness to the community than for their technical competence.

These findings carry three implications. For the company, the next gains are likely to come from deepening community control over planning and evaluation, strengthening technical and business facilitation, and making the environmental outcomes of waste valorisation visible and measurable. For corporate community development more broadly, the results show that a hydropower operator can achieve beneficiary satisfaction comparable to, and slightly higher than, that reported for mining-sector programmes, while also illustrating that high satisfaction coexists with continued demand for support and does not by itself demonstrate self-reliance. For evaluation practice, the clustering of CSI values within a narrow, high band indicates that the index is better suited to detecting programme failure than to differentiating among successful programmes.

Future research should collect respondent-level data to test instrument reliability and identify the elements that most strongly drive satisfaction, compare satisfaction across demographic groups, triangulate perceived benefits with objective environmental and economic indicators, and follow beneficiary groups over time to determine whether declared readiness for independence translates into sustained community enterprises after corporate support ends.

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