



Tourism Activity Without Equitable Income: The Benefit Capture Gap in Upland West Java, Indonesia

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ABSTRACT: Community based agroecotourism is promoted in rural Indonesia as a means of improving livelihoods while supporting environmental conservation and cultural preservation. This study examines who benefits economically from such initiatives through a questionnaire survey of 139 residents involved in agroecotourism across four villages in Bandung Regency, West Java. Sustainability was assessed across six dimensions and disaggregated by village, sex, and principal occupation. The findings reveal a benefit capture gap. Although social, cultural, ecological, and technological sustainability received moderate scores, economic sustainability remained the weakest dimension. Perceived improvement in monthly household income was the lowest rated economic attribute, despite favourable assessments of job creation and business diversification. Women, housewives, traders, and respondents in other occupations reported comparatively lower economic indices, whereas farmers and village officials reported higher scores. Weak benefit sharing arrangements and limited formal partnerships may contribute to this pattern. The study recommends prioritising market access, transparent benefit sharing, and targeted inclusion.

Keywords: community-based tourism; agro-ecotourism; benefit distribution; rural livelihoods; participation; Indonesia

INTRODUCTION

Community based tourism is widely promoted as a rural development strategy capable of improving local livelihoods while conserving the environmental and cultural resources on which tourism depends. In Indonesia, this approach has been institutionalised through the *desa wisata*, or tourism village, programme. Agroecotourism represents a more specific form of this model by integrating working farms, agricultural production, local food systems, cultural practices, and natural landscapes into the visitor experience (Tuzon et al., 2014; Nurfaida, 2020). Its development rationale is straightforward. Tourism creates demand for local products and services, residents gain additional livelihood opportunities, and agricultural landscapes acquire economic value that may encourage their continued protection.

However, the creation of tourism activities does not necessarily produce substantial or equitably distributed livelihood benefits. Tourism villages may attract visitors, receive government recognition, and generate new enterprises while leaving many residents with limited improvements in household income



(Mutisari et al., 2022). Community based tourism has consequently been criticised for encouraging local participation without ensuring that residents exercise control over resources or receive a fair share of the resulting revenue (Blackstock, 2005; Manyara & Jones, 2007). Benefits may be concentrated among residents who already possess land, capital, business networks, or institutional authority, while women, informal workers, and economically marginal households remain confined to low paid, irregular, or unpaid roles.

Existing research has established that community-based tourism can generate unequal outcomes and reproduce existing social and economic inequalities. Nevertheless, sustainability assessments commonly present aggregate scores at the village or programme level. Such assessments can obscure differences between visible tourism activity and actual livelihood improvement, as well as variation in benefits among social groups. A village may therefore appear socially, culturally, or environmentally sustainable while its economic gains remain limited, irregular, or concentrated among relatively advantaged residents. More attention is needed to the distributional question of who benefits, rather than merely whether tourism activities and enterprises exist.

This article addresses this gap through evidence from four community based agroecotourism villages in Bandung Regency, West Java. It evaluates sustainability across economic, cultural, social, institutional, ecological, and technological dimensions and then disaggregates the economic results by village, sex, and principal occupation. We define the benefit capture gap as the divergence between the presence of tourism related employment and enterprise activity and the extent to which these activities generate substantial, reliable, and broadly distributed improvements in household income. The study therefore asks two related questions: how sustainable is community based agroecotourism across the six dimensions, and how are its perceived economic benefits distributed among villages and social groups?

The study contributes to development practice by showing that moderate aggregate sustainability can coexist with weak and uneven livelihood outcomes. Rather than treating visitor numbers, employment creation, or business diversification as sufficient evidence of success, it directs attention to whether tourism generated opportunities translate into meaningful household benefits. The analysis also provides a simple diagnostic approach that development agencies, village organisations, and project teams can use to identify where the relationship between tourism activity and local benefit capture begins to weaken.

LITERATURE REVIEW

Community based tourism in the Indonesian context

In Indonesia, community based tourism has been institutionalised primarily through the *desa wisata*, or tourism village, model. This approach seeks to combine local attractions, accommodation, agricultural activities, cultural practices, and community participation within village development. Tourism villages are expected to diversify rural livelihoods, support local enterprise, preserve cultural and environmental resources, and strengthen community institutions. Evidence from Bangelan Tourism Village in East Java shows that trust, community networks, and collective participation can strengthen sustainable tourism development, although the benefits depend on the quality of local social capital and cooperation (Prayitno et al., 2024).

The development of tourism villages nevertheless produces uneven outcomes. Indonesian communities differ in organisational capacity, infrastructure, market access, entrepreneurial capability, and readiness to manage tourism. Sayuti et al. (2023) found that community readiness is a critical condition for implementing sustainable community based tourism because residents require sufficient knowledge, participation, leadership, and institutional support. Similarly, research on rural tourism entrepreneurship in Indonesia identified innovation, networks, institutional support, and access to local resources as important factors influencing the success of sustainable tourism enterprises (Utami et al., 2023). These findings indicate that the formal designation of a tourism village does not automatically produce viable enterprises or broad livelihood improvement.

Market access and institutional coordination are particularly important in determining whether local tourism activities generate sustained economic benefits. Saputro et al. (2023), examining rural tourism in Ciamis, West Java, found that sustainable development depends on the integration of economic, social, environmental, institutional, and infrastructural priorities. Their findings show that rural tourism cannot be sustained through attraction development alone because local organisations, accessibility, market connections, and coordinated management also shape development outcomes. Research across tourism

villages on Java similarly demonstrates that business capability, innovation, and competitive advantage influence tourism management performance and long term sustainability (Amrullah et al., 2023).

These issues are also evident in agroecotourism. A multidimensional assessment of community based agroecotourism in West Java found that sustainability varied across economic, social, ecological, institutional, cultural, and technological dimensions, with several villages experiencing weaknesses in economic and institutional conditions (Djuwendah et al., 2023). This suggests that the availability of agricultural landscapes, cultural resources, and community participation is insufficient when local products and services are not connected to reliable markets, supportive institutions, and viable tourism value chains.

The Indonesian evidence therefore reinforces the distinction between participation in tourism activities and the capacity to capture their benefits. Residents may contribute labour, products, cultural performances, or environmental management while remaining excluded from higher value opportunities, formal partnerships, or decisions over revenue distribution. This problem is especially relevant to women, informal traders, agricultural labourers, and households without strong institutional connections or productive assets. The tourism village model should consequently be assessed not only by the existence of attractions, organisations, and community participation, but also by whether income, market access, and decision making opportunities are distributed equitably among residents.

Agroecotourism and the promise of community benefit

Community based tourism is founded on the principle that local residents should participate meaningfully in tourism development and receive a fair share of its benefits (Scheyvens, 1999; Tosun, 2000). Agroecotourism applies this principle to rural settings in which farms, plantations, fisheries, food systems, and surrounding landscapes serve simultaneously as livelihood resources, conservation assets, and visitor attractions (Tuzon et al., 2014). In principle, this model can strengthen the relationship between environmental protection and local welfare because the resources being conserved are also expected to generate income for resident communities.

Meaningful participation, however, involves more than providing labour, attending meetings, or supplying products and services. It also requires influence over decisions, access to markets, and a recognised claim to the revenue generated by tourism. Arnstein's (1969) distinction between nominal involvement and effective control remains relevant because community participation can occur without corresponding authority over resources or benefit distribution. In such circumstances, residents may contribute to tourism activities while remaining excluded from decisions concerning pricing, partnerships, investment, and the allocation of income (Tosun, 2000).

Economic benefits are also shaped by residents' access to productive assets and their position within local tourism value chains. Those who own land, accommodation, vehicles, capital, or established businesses are generally better positioned to respond to tourism demand than residents who rely on casual work or small scale informal trade. Returns from community based tourism may also be seasonal, fragmented, and insufficient to produce meaningful improvements in household welfare (Manyara & Jones, 2007; Mitchell & Ashley, 2010). As a result, the creation of tourism employment and enterprises does not necessarily imply that benefits are substantial, reliable, or equitably distributed.

These inequalities often have a gendered and occupational character. Women may contribute through food preparation, cultural activities, domestic labour, homestay services, and informal trading, yet receive limited recognition, decision making authority, or control over income. Similarly, petty traders and informal workers frequently occupy lower value positions than landowners, established entrepreneurs, or village officials. Tourism may therefore reproduce existing inequalities when opportunities depend on prior ownership of assets, access to organisations, or proximity to local decision makers.

Institutional arrangements play a central role in determining whether tourism revenue remains within the community and reaches less advantaged groups. Transparent revenue sharing rules, community development funds, local procurement commitments, representative management organisations, and formal partnerships can strengthen local benefit capture. In their absence, benefits tend to follow existing distributions of power and resources (Blackstock, 2005; Spenceley & Meyer, 2012). Training alone may be insufficient when participants lack access to buyers, finance, business networks, or decision making structures.

From a sustainable livelihoods perspective, tourism should be understood as one component of a broader livelihood portfolio rather than as an automatic solution to rural poverty. Its contribution depends

not only on the number of activities created but also on the size, stability, accessibility, and distribution of the resulting returns (Tao & Wall, 2009). This perspective directs attention from aggregate tourism performance towards the mechanisms through which households convert tourism participation into livelihood gains.

The literature therefore suggests that benefit capture depends on three interrelated conditions: access to productive assets and market opportunities, meaningful participation in decisions, and institutional arrangements that protect a local and equitable share of tourism revenue. Where these conditions are weak, a benefit capture gap may emerge, in which tourism activity expands without generating substantial or broadly distributed household income. This study applies that perspective by comparing sustainability across four villages and examining how perceived economic benefits vary by village, sex, and principal occupation.

METHODS

This study used a quantitative cross sectional survey to examine the sustainability of community based agroecotourism and the distribution of its perceived economic benefits. The questionnaire was developed in 2024 and administered from March to June 2025 in Bandung Regency, West Java, Indonesia.

Four tourism villages were purposively selected: Lebakmuncang in Ciwidey District, Alamendah in Rancabali District, Laksana in Ibun District, and Pulosari in Pangalengan District. The villages shared an upland agrarian setting but differed in tourism maturity, institutional organisation, and market access. Alamendah represented a relatively mature destination with established agribusiness networks and market channels, while the remaining villages varied in the extent of their institutional development and market connections.

The target population comprised adult residents directly involved in or familiar with local agroecotourism activities, including farmers, agricultural labourers, traders, entrepreneurs, housewives, village officials, tourism workers, and other community participants. Purposive sampling was used because no complete sampling frame of agroecotourism participants was available. Village level quotas ensured representation across the four study sites. The original dataset contained 142 respondents. Three respondents younger than 18 years were excluded before analysis, resulting in a final analytical sample of 139 adults, comprising 34 respondents from Lebakmuncang, 36 from Alamendah, 36 from Laksana, and 33 from Pulosari.

Data were collected using a structured questionnaire administered directly to respondents. The broader instrument included sections on participation, institutional support, tourism resources, and community based tourism performance. The present article analyses respondent characteristics and a 33 item sustainability assessment comprising seven economic, three cultural, five social, six institutional, six ecological, and six technological indicators.

Each sustainability indicator was measured on a four point ordinal scale with criterion specific response categories. A score of 1 represented the least favourable condition and a score of 4 represented the most favourable condition. The economic indicators assessed business diversification, employment opportunities, visitor market scale, product sales outlets, perceived monthly income improvement, community development funding, and the number of processing enterprises. The income indicator reflected respondents' perceived monthly income improvement associated with agroecotourism rather than audited household earnings.

All 139 eligible questionnaires contained complete responses for the sustainability indicators and were retained for analysis. Mean indicator scores were transformed into indices ranging from 0 to 100 using the following formula:

$$I = [(X - 1) / (4 - 1)] \times 100$$

where I represents the sustainability index and X represents the observed mean score. Dimension scores were calculated as the mean of their respective transformed indicators, while the overall sustainability score was the unweighted mean of the six dimension indices.

The analysis proceeded in three stages. First, sustainability indices were calculated for the complete sample. Second, the six dimensions were compared across the four villages. Third, the economic index was disaggregated by sex and principal occupation. Differences between men and women were assessed using

Welch's independent samples *t* test, while occupational differences were examined descriptively because several categories contained relatively small samples.

Participation was voluntary, and respondents were informed about the purpose of the research, confidentiality, and their right to decline participation. Informed consent was obtained before questionnaire administration. Personally identifying information was excluded from the analytical reporting, and all results were presented in aggregate form.

RESULTS

Moderate sustainability with a weak economic dimension

Across the four villages, community based agroecotourism achieved an overall unweighted sustainability index of 56.76 on the scale from 0 to 100. The social dimension received the highest index at 62.83, followed by technological sustainability at 61.91 and cultural sustainability at 58.91. Ecological and institutional sustainability recorded indices of 53.72 and 52.72, respectively. Economic sustainability received the lowest overall index at 50.50.

These findings show that respondents assessed the social, technological, and cultural dimensions more favourably than the economic dimension. Although community based agroecotourism was associated with positive social and cultural conditions, its perceived contribution to local economic welfare was comparatively limited.

Table 1. Sustainability index by dimension and village

Village	Economic	Cultural	Social	Institutional	Ecological	Technological
Alamendah	77	75	71	70	64	76
Laksana	46	48	63	41	54	61
Lebakmuncang	35	74	64	50	49	54
Pulosari	43	38	53	50	48	55
All villages	50	59	63	53	54	62

Source: Authors' survey of 139 adult residents, 2025. Values represent mean indicator scores transformed to a scale from 0 to 100.

Tourism activity and perceived household income

The economic indicators reveal a clear difference between the creation of tourism related activity and perceived improvement in household income. Job opportunities received the highest economic index at 70.98, followed by business diversification at 67.63. These results indicate that respondents perceived agroecotourism as contributing to new employment opportunities and a broader range of local economic activities.

In contrast, perceived monthly household income improvement recorded the lowest economic index at 31.41. The questionnaire measured this indicator through four income categories, ranging from an increase of less than IDR 500,000 per month to an increase of more than IDR 2 million per month. The low index indicates that respondents generally reported limited income improvement associated with agroecotourism.

The supporting economic conditions also received relatively low indices. Community development funding recorded an index of 40.53, while the availability of product sales outlets received 45.08. Visitor market scale and the number of processing enterprises recorded indices of 48.68 and 49.16, respectively. Thus, favourable perceptions of employment creation and business diversification were not accompanied by equally favourable assessments of household income, market reach, sales infrastructure, or community funding.

This divergence between visible economic activity and limited perceived household income improvement represents the principal empirical expression of the benefit capture gap.

Table 2. Economic sustainability indicators across all villages

Economic indicator	Index
Job opportunities following agroecotourism development	70.98
Diversification of local businesses	67.63
Number of processing enterprises	49.16

Visitor market scale	48.68
Availability of outlets for local products	45.08
Community development fund	40.53
Perceived monthly household income improvement	31.41

Source: Authors' survey of 139 adult residents, 2025.

Distribution of perceived economic benefits

The aggregate economic index concealed differences between women and men. Men reported a mean economic sustainability index of 53.36, compared with 46.84 among women. Welch's independent samples *t* test showed that the difference was not statistically significant, $t(136.93) = 1.80, p = .075$, Cohen's $d = 0.30$. The result does not provide conclusive evidence of a population level difference between women and men. Nevertheless, the lower mean among women indicates a potential distributional pattern that warrants attention, particularly because the study did not measure unpaid labour, control over tourism income, or decision making authority.

Economic sustainability also varied across principal occupational groups. Village officials recorded the highest mean index at 61.51, followed by farmers at 60.85 and agricultural labourers at 59.23. Entrepreneurs reported an intermediate index of 46.19. Respondents classified under other occupations recorded an index of 42.67, while private employees reported 40.00. Housewives and traders recorded the lowest indices at 38.30 and 37.50, respectively.

The occupational comparisons were descriptive because several categories contained relatively small numbers of respondents. They should therefore be interpreted as indicative patterns rather than statistically representative differences. Even so, the results show that perceived economic benefits were not distributed uniformly among occupational groups.

Table 3. Economic sustainability index by sex and principal occupation

Group	n	Mean index	Standard deviation
Sex			
Men	78	53.36	23.78
Women	61	46.84	18.99
Principal occupation			
Village officials	24	61.51	21.89
Farmers	27	60.85	21.76
Agricultural labourers	16	59.23	23.20
Entrepreneurs	10	46.19	13.48
Other occupations	26	42.67	22.56
Private employees	5	40.00	16.36
Housewives	23	38.30	13.73
Traders	8	37.50	14.94

Source: Authors' survey of 139 adult residents, 2025. Occupational comparisons are descriptive.

Institutional conditions for benefit capture

The institutional indicators provide further insight into the limited economic outcomes. Training and extension activities received the highest institutional index at 65.71. In contrast, the existence of a guaranteed local share of tourism benefits recorded an index of 45.56, while formal partnerships with external organisations recorded 46.52.

Stakeholder coordination received an index of 52.04, management rules recorded 52.76, and the functioning of tourism management organisations received 53.72. These results indicate that training activities were more developed than formal arrangements governing partnerships and the distribution of tourism benefits.

The institutional pattern is consistent with the benefit capture gap. Respondents perceived some capacity for training, coordination, and local organisation, but reported weaker provisions for guaranteeing local benefits and establishing formal external partnerships.

Variation among villages

Substantial differences were observed across the four villages. Alamendah recorded the highest index in every sustainability dimension. Its economic sustainability index reached 76.85, compared with 45.50 in Laksana, 42.86 in Pulosari, and 35.29 in Lebakmuncang. Alamendah also recorded relatively high cultural, social, institutional, ecological, and technological indices.

Lebakmuncang presented a contrasting pattern. Its cultural sustainability index was relatively high at 73.53, while its economic index was the lowest among the four villages. This result indicates that favourable cultural conditions did not coincide with equally favourable economic outcomes.

Laksana recorded relatively favourable social and technological indices of 62.96 and 61.42, respectively, but its institutional index was only 41.20. Pulosari recorded comparatively low indices across most dimensions, particularly cultural sustainability at 38.05 and economic sustainability at 42.86.

The village comparison demonstrates that sustainability performance was not uniform across locations or dimensions. Alamendah combined relatively strong economic, institutional, cultural, and technological conditions, whereas the other villages displayed more uneven profiles. The contextual factors that may explain these differences, including market access, institutional maturity, and agribusiness networks, are considered in the Discussion.

DISCUSSION

The findings reveal a sustainability paradox within the four agroecotourism villages. Social, cultural, technological, and ecological sustainability received comparatively favourable assessments, while the economic dimension remained the weakest. This pattern indicates that positive community and environmental conditions can coexist with limited perceived household income improvement. It is therefore possible for a tourism village to maintain local traditions, encourage participation, and support environmental management without generating economic returns of comparable strength.

This result supports longstanding critiques of community based tourism, which distinguish participation in tourism activities from meaningful influence over decisions and access to benefits (Blackstock, 2005; Tosun, 2000). The Indonesian literature similarly shows that social capital and collective participation can support tourism village development, but these resources do not by themselves guarantee economic sustainability. In Bangelan Tourism Village, for example, community networks, trust, and shared norms supported sustainable tourism development, yet their value depended on how effectively they were connected to local organisation and collective action (Prayitno et al., 2024). The relatively strong social index in the present study should therefore not be interpreted as evidence that economic benefits were automatically broad or substantial.

The economic indicators show more precisely where the gap emerged. Respondents assessed job opportunities and business diversification relatively favourably, but perceived monthly household income improvement received the lowest economic score. This suggests that the creation of activities and enterprises did not necessarily produce economic returns of sufficient scale to be strongly reflected in household income. Indonesian research on rural tourism entrepreneurship has similarly found that economic sustainability depends not merely on residents entering tourism related activities, but also on entrepreneurial capability, innovation, networks, and institutional support (Utami et al., 2023). The present findings add that employment and enterprise counts may overstate livelihood progress when market reach, product outlets, community funding, and household income remain weak.

The village comparisons further support this interpretation. Alamendah recorded the strongest economic and institutional performance, while Lebakmuncang combined a high cultural index with the lowest economic index. These contrasts suggest that cultural resources and attractive agricultural experiences are not sufficient by themselves to secure strong economic outcomes. Evidence from Indonesian tourism villages shows that limited finance, infrastructure, marketing, coordination, and professional management can prevent local attractions from becoming sustainable businesses (Amrullah et al., 2023). Research in Ciamis, West Java, likewise emphasises that rural tourism sustainability depends on coordinated economic, institutional, infrastructural, social, and environmental development rather than attraction development in isolation (Saputro et al., 2023). Within the present cases, Alamendah's stronger profile is consistent with the possible value of established agribusiness networks and market channels, although the survey did not directly test the causal influence of those arrangements.

The institutional results identify a more specific constraint. Training and extension received a substantially higher score than guaranteed local benefit sharing, formal partnerships, and community development funding. This suggests that support has been stronger in building individual knowledge than in creating the institutional arrangements needed to convert knowledge into dependable returns. Training can improve residents' ability to produce food, host visitors, or promote village attractions, but those skills may have limited economic effect when products lack reliable buyers, marketing channels, financing, or formal partnership arrangements. Studies of sustainable tourism management in Indonesia have similarly identified weak coordination and limited institutional synergy as barriers to translating local tourism potential into sustained development outcomes (Saputro et al., 2023; Sayuti et al., 2023). The benefit capture gap observed here is therefore associated not simply with insufficient participation, but with weak connections between participation, markets, and revenue distribution.

The occupational pattern also requires careful interpretation. Village officials, farmers, and agricultural labourers reported higher economic indices than housewives and traders. The survey does not establish whether these differences resulted from land ownership, income control, access to organisations, or the types of services supplied to tourists. However, they indicate that residents do not occupy equivalent positions within the local tourism economy. Farmers may benefit when agricultural production itself forms part of the attraction or supplies tourism related products, while village officials may be better informed about programmes and institutional opportunities. By contrast, traders and housewives may operate in activities with lower transaction values, smaller customer volumes, or less regular demand. These explanations remain propositions for further investigation rather than conclusions demonstrated by the present data.

The lower mean economic index among women should also be interpreted cautiously. The difference between women and men was small and did not reach statistical significance, so the study does not establish a general gender gap across the wider population. Nevertheless, the direction of the result is consistent with concerns that women's involvement in community tourism may be concentrated in food preparation, domestic services, cultural work, and small scale trading without equivalent influence over revenue or management. Recent evidence from community led ecotourism shows that visible participation can coexist with women's marginalisation when their work remains weakly recognised or when decision making structures remain dominated by other actors (Das, 2024). The present study cannot determine whether such mechanisms operated in Bandung Regency because it did not measure unpaid work, ownership, household income control, or representation in tourism organisations. It therefore identifies a question requiring closer investigation rather than confirming a causal explanation.

From a sustainable livelihoods perspective, the findings show why tourism should be assessed according to the quality and distribution of its returns rather than the visibility of tourism activity alone. Tourism is usually one element within a wider livelihood portfolio that includes farming, wage labour, trading, and household production (Tao & Wall, 2009). Its contribution depends on whether households can convert their labour, assets, skills, and institutional relationships into income that is sufficiently substantial and dependable. The benefit capture gap identified in this study therefore refers to a concrete mismatch: respondents perceived employment and enterprise development, but the associated household income, market access, community funding, and institutional guarantees remained comparatively weak.

The contribution of the study lies in demonstrating that this mismatch can be concealed by aggregate sustainability indices. A village level score may suggest moderate performance while masking substantial differences across dimensions, locations, and occupational groups. Disaggregating the economic dimension showed that the central issue was not a complete absence of tourism activity, but limited conversion of that activity into perceived household income. For development agencies and village organisations, this means that monitoring should move beyond visitor counts, business numbers, and training attendance. It should also examine the value and regularity of household earnings, access to sales channels, participation in decision making, and the distribution of benefits among different groups.

Several limitations qualify these conclusions. The indices reflect respondents' assessments rather than audited income, business turnover, or visitor expenditure. Purposive sampling also means that the findings describe the surveyed participants and cannot be statistically generalised to all residents of Bandung Regency. Occupational comparisons were descriptive, and several categories contained small samples. The cross sectional design cannot determine whether agroecotourism caused the observed differences or whether residents with stronger initial resources were more likely to participate and benefit. The study also

did not measure landholding, business ownership, unpaid labour, household control over income, or respondents' positions within specific tourism value chains. Future research should combine household income data with value chain mapping and qualitative interviews to identify which tourism activities generate revenue, how that revenue moves between actors, and where benefit capture becomes restricted.

The findings suggest that agencies, non-governmental organisations, and village teams should design community based agroecotourism around benefit capture rather than activity alone. Jobs, enterprises, visitor numbers, and market stalls should be treated as intermediate outputs rather than final indicators of success. Monitoring systems should therefore include explicit measures of household income improvement, income stability, and the distribution of benefits across different social groups. A project that generates visible activity but produces only limited or irregular household returns has not yet achieved its livelihood objective.

Market access should be developed alongside tourism attractions. The village comparisons indicate that agricultural and cultural resources are more likely to generate income when local producers have access to dependable buyers and distribution channels. Partnerships with cooperatives, agribusinesses, hotels, restaurants, institutional kitchens, and local retailers can create more stable demand for agricultural products, processed foods, cultural services, and visitor experiences. In this respect, strengthening existing products and connecting them to viable markets may be more effective than continually adding new attractions.

Local benefit sharing should also be formalised. Village regulations, transparent revenue sharing arrangements, local procurement commitments, and community development funds can help ensure that tourism income remains within the community and is distributed more broadly. Such mechanisms should specify how revenue is collected, allocated, monitored, and reported. Publicly accessible accounts and representative oversight can reduce the risk that benefits remain concentrated among residents with greater assets or institutional influence.

Inclusion requires deliberate institutional support. Women, housewives, petty traders, and informal workers may participate in tourism while remaining concentrated in low paid, irregular, or unpaid roles. Village organisations should therefore create direct routes into paid opportunities through culinary and homestay cooperatives, small grants, procurement preferences, skills development linked to actual market demand, and meaningful representation in tourism management bodies. Participation should be assessed not only by attendance or involvement but also by access to income, decision making, and control over resources.

Finally, project teams can use a simple and repeatable diagnostic to identify emerging benefit capture gaps. Sustainability indicators can be assessed across economic, cultural, social, institutional, ecological, and technological dimensions, but the economic results should also be disaggregated by sex, occupation, and village. Aggregate scores may indicate whether a programme is functioning overall, while disaggregated results reveal which groups are benefiting and which remain excluded. This combination provides a practical basis for adjusting market strategies, institutional arrangements, and inclusion measures before inequalities become embedded.

CONCLUSION

Community based agroecotourism in Bandung Regency was assessed relatively favourably in its social, cultural, technological, and ecological dimensions, but its perceived contribution to household economic welfare remained limited and uneven. Respondents recognised employment creation and business diversification, yet perceived improvements in monthly household income were substantially weaker. Lower economic scores among women, housewives, petty traders, and informal workers further suggest that participation in tourism activity does not necessarily produce equitable livelihood benefits.

The findings identify a benefit capture gap between the existence of tourism related activities and the extent to which their returns become substantial, reliable, and broadly distributed household income. Weak benefit sharing arrangements, limited formal partnerships, and restricted market access may contribute to this gap by reducing the capacity of residents to convert participation into sustained economic gains.

For development practice, the implication is that success should not be assessed solely through visitor numbers, employment creation, or the growth of local enterprises. Monitoring should also examine who receives income, how stable that income is, and whether less advantaged groups are included in paid opportunities and decision making. Stronger market linkages, transparent benefit sharing arrangements, representative local institutions, and targeted support for marginal groups may improve the capacity of agroecotourism to deliver on its livelihood promise. The central question is therefore not only whether

tourism activity is expanding, but whether that activity produces meaningful improvements for the residents it is intended to benefit.

CONFLICT OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this article.

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DATA AVAILABILITY

The data supporting the findings of this study are available from the corresponding author upon reasonable request. The dataset is not publicly available because it contains information that could permit the identification of respondents.

AUTHOR CONTRIBUTIONS

Conceptualisation: ED, TK ER; methodology: ED, TK; investigation: ZS, OH; data curation: ED, ZS, OH; formal analysis: ER, ZS; writing, original draft: ED, TK, ZS, OH; writing, review and editing: ED, TK, ZS, OH; supervision: ED, TK. All authors read and approved the final manuscript.

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