

Status of Tourism in Lagayan, Abra: A Baseline Assessment

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Abstract

Tourism has become a growing opportunity for local communities to improve livelihood, support small businesses, and promote development. In Lagayan, Abra, assessing the current status of tourism is necessary to determine its economic contributions and workforce development challenges. This study assessed the economic impact of tourism and the workforce development challenges in Lagayan, Abra for 2025–2026.

The study used purposive sampling among 250 respondents. Data were gathered through a structured questionnaire and analyzed using frequency count, percentage, weighted mean, and chi-square.

Findings revealed that most respondents were aged 35–44, male, high school graduates, seasonal workers, and had six years or more of tourism-related service. Tourism contributed to a very high extent in community livelihood and empowerment, revenue generation, and infrastructure and development, while economic inclusivity was rated high. Workforce development challenges were high in job quality and opportunities, access and support systems, and skills and education gaps, while policy and community engagement was rated moderate. Chi-square results showed significant relationships between tourism's economic contributions and age, employment status, and years in service, while sex and highest educational attainment showed no significant relationship.

Tourism is an important contributor to the economic development of Lagayan, Abra. However, its benefits are not yet fully distributed across all sectors, and workforce-related issues continue to affect tourism growth. Thus, the study recommends the adoption of a Tourism Operations Manual to strengthen inclusive participation, workforce development, operational standards, and sustainable tourism management in the municipality.

Keywords: *Economic Impact of Tourism, Workforce Development Challenges, Revenue Generation, Community Livelihood and Empowerment, Tourism Workforce*

I. INTRODUCTION

Background of the Study

Tourism has emerged as one of the fastest-growing global sectors, transforming physical landscapes and the socioeconomic structures of communities (UNWTO, 2019; Hall & Page, 2014; Sharpley, 2018). Its rapid expansion stimulates infrastructure development, mobility, and economic diversification, while also fostering cultural exchange, community identity, and livelihood adaptation. Tourism is especially significant in rural and emerging areas where traditional sectors such as agriculture or small-scale industries may no longer provide adequate income, positioning the sector as a catalyst for economic revitalization, social development, and long-term community resilience. Globally, tourism contributes to employment, foreign currency earnings, and regional development, with multiplier effects across transport, retail, hospitality, and agriculture (Drăghici et al., 2019; Gyimóthy et al., 2021; Brida et al., 2020).

Sustainable development frameworks, such as the United Nations Sustainable Development Goals (SDGs), highlight tourism's role in fostering inclusive economic growth. SDG 8 promotes productive employment and decent work, while Target 8.9 emphasizes sustainable tourism policies that generate employment and preserve local culture (United Nations, 2015; UNWTO, 2017). Community-based tourism (CBT) is recognized as a practical approach to poverty reduction, inclusive development, and cultural preservation. Empirical evidence from Southeast Asia demonstrates that CBT initiatives in Thailand and Indonesia enhance local income, employment, cultural conservation, and entrepreneurship through homestays, agro-ecotourism, and tourism route development (Jujia et al., 2025; Azahra et al., 2023; Widiartanto et al., 2022).

In the Philippines, tourism is strategically positioned as a driver of rural development and poverty alleviation. The Department of Tourism (DOT) integrates tourism into national development strategies, with policies such as the National Tourism Development Plan emphasizing workforce development, competency-based training, and alignment with local tourism priorities (DOT, 2021; PNA, 2018; Dizon & Dizon, 2020). Research affirms that community-based rural tourism (CBRT) empowers vulnerable populations, strengthens local entrepreneurship, and generates both direct and indirect employment (Gabito, 2021; Parilla et al., 2020; David & Du, 2018; Libosada, 2019). Studies in Surigao del Norte, Palawan, Bohol, and Northern Luzon indicate that CBRT promotes income generation, cultural preservation, livelihood diversification, and social cohesion. However, outcomes depend on access to training, capital, governance, and institutional support.

Agritourism or farm tourism further integrates agriculture with tourism, generating supplementary income, promoting food security, and reducing livelihood vulnerability (Pulhin et al., 2021; Moreno & Tejada, 2020; PIDS, 2020). Empirical evidence from Laguna, Batangas, and Bukidnon shows that farm-based tourism provides employment for women and youth, stimulates micro-enterprise development, and strengthens linkages between agriculture and tourism value chains. Nevertheless, the sustainability of these benefits relies on workforce capacity, market access, and institutional support.

National tourism performance underscores the sector's resilience and economic significance. In 2024, the Philippines recorded 5,949,350 international arrivals, representing a 9.15% increase from 2023, reinforcing tourism as a key driver of interconnected sectors such as hospitality, transport, retail, and services (DOT, 2025; PIA, 2025). Despite these gains,

benefits are not evenly distributed. Smaller municipalities such as Lagayan, Abra, show rising arrivals and revenue—tourist arrivals increased from 20,718 in 2023 to 36,500 in 2024, and tourism revenue from ₱625,790 to ₱1,415,710—yet workforce expansion remains constrained by fiscal, seasonal, and institutional limitations. These dynamics reflect broader disparities in rural tourism employment and access to benefits.

Employment quality in tourism is a persistent concern. Jobs are often informal, seasonal, and low-paid, with limited access to social protection, career advancement, and benefits. Women, youth, and marginalized groups are disproportionately affected (Maguigad & Valderrama, 2019; Abellera, 2023; TESDA, 2023; PIDS, 2022). The COVID-19 pandemic further exposed vulnerabilities, disproportionately affecting informal workers and amplifying income inequalities (Gössling et al., 2022; Baum et al., 2020). Workforce readiness is another challenge, with tourism graduates frequently lacking technical skills, soft skills, and digital competencies needed for contemporary industry demands (Baum, 2015; Penco et al., 2022; Minor et al., 2024). These gaps are more pronounced in rural areas, which often lack access to accredited training centers, industry experts, internships, and digital technologies (OECD, 2018; Dacanay & Macabenta, 2021).

Governance and infrastructure deficiencies further limit inclusive tourism development. Fragmented policy implementation, weak coordination between agencies, and limited community participation reduce program effectiveness and equity (Gabito & De Vera, 2022; Leguizamón, 2016; Delos Santos et al., 2025). Poor roads, limited lodging, inadequate emergency services, and weak digital connectivity constrain the scalability of tourism in rural destinations, including the Cordillera Administrative Region (Busalla, 2025; Mirabueno, 2014; Ratilla et al., 2023). In Lagayan, eco-adventure sites such as Lusuac Spring Resort, Ar-Arbis Falls, Barusibis Falls, and multiple caves offer substantial tourism potential (Gawisaybiyag, 2024; Silverbackpacker, 2025; JimTVPhilippines, 2024). However, planning and implementation are hindered by insufficient data on workforce conditions, tourism-generated income, and benefit distribution, leading to misaligned investments and underutilized resources.

This study addresses these gaps by providing a comprehensive baseline assessment of tourism in Lagayan, Abra. It examines tourism performance, workforce conditions, revenue generation, and distribution of benefits among local stakeholders. Demographic factors, including age, gender, education, employment status, and length of residence, are considered to understand participation patterns, access to opportunities, and community resilience (Drăghici et al., 2019; Zhang et al., 2021; Kustiyono et al., 2023). Findings from this study will inform the development of a localized Tourism Operations Manual to standardize tourism operations, align investments with local realities, and design needs-based workforce training programs, ultimately promoting sustainable, inclusive, and resilient tourism development in Lagayan.

Statement of the Problem

This study aims to assess the current status of tourism in Lagayan, Abra, to provide a basis for effective policy formulation and strategic planning. Specifically, it seeks to answer the following questions:



1. What is the demographic profile of the respondents in terms of:
 - a. age,
 - b. sex,
 - c. educational Attainment,
 - d. employment Status, and
 - e. number of years in the service?
2. To what extent does tourism contribute to the economic development of the municipality in terms of:
 - a. revenue generation,
 - b. infrastructure and development,
 - c. community livelihood and empowerment, and
 - d. economic inclusivity?
3. To what extent do respondents perceive the seriousness in the workforce development that limit sustainable tourism growth, in terms of:
 - a. skills and education Gaps,
 - b. access and support Systems,
 - c. job quality and opportunities, and
 - d. policy and community engagement?
4. Is there a significant relationship between the demographic profile of the respondents and the economic contributions of tourism to the municipality of Lagayan?
5. What tourism operational standards can be formulated from the findings of the study to improve tourism management in Lagayan, Abra?

Research Objectives

1. To identify the demographic profile of tourism stakeholders in Lagayan, Abra, including age, sex, educational attainment, employment status, and number of years in service.
2. To examine the extent of tourism's contribution to the municipality's economic development in terms of revenue generation, infrastructure and development, community livelihood and empowerment, and economic inclusivity.
3. To assess workforce development challenges that may limit sustainable tourism growth, including skills and education gaps, access and support systems, job quality and opportunities, and policy and community engagement.
4. To determine whether there is a significant relationship between demographic profile and the economic contributions of tourism.
5. To formulate tourism operational standards based on the study's findings to improve tourism management in Lagayan.

II. MATERIALS AND METHOD

Research Design

A quantitative, descriptive research design was employed to examine the status of tourism in Lagayan, Abra. This approach allowed the study to describe the demographic profile of tourism stakeholders, assess economic contributions of tourism, and identify workforce development challenges without manipulating variables.

Population and Locale of the Study

A purposive sample of 250 respondents from Lagayan, Abra, was selected, including 6 senior high school teachers, 36 municipal employees, 21 barangay officials, 75 tourism workers, 54 supporting sector workers, and 58 entrepreneurs from Barangays Collago, Poblacion, and Pang-ot.

Data Gathering Instrument

A structured questionnaire was used, divided into three sections: (1) demographic profile (age, sex, educational attainment, employment status, and years in service), (2) perceived economic contributions of tourism (based on Lankford & Howard, 1994; Andereck et al., 2005; Fredline et al., 2006), and (3) workforce development challenges (skills and education gaps, job quality and opportunities, access to support systems, and policy or community engagement; based on Booyens, 2020; Postolov & Elenov, 2026; UNWTO & ILO, 2014). All items were rated using a five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Data Gathering Procedures

Permission was secured from the Municipal Mayor of Lagayan. Questionnaires were personally administered to selected participants, ensuring completeness and clarity. Purposive interviews with key informants were conducted to gain in-depth perspectives on workforce and tourism challenges. Data collection adhered to ethical standards, including informed consent, confidentiality, and inclusion of marginalized groups.

Data Analysis

Descriptive statistics (frequencies, percentages, weighted means) summarized the demographic profile and perceptions of economic contributions and workforce challenges. Weighted mean scores were interpreted using a descriptive rating scale. Inferential statistics, specifically chi-square tests of independence, were applied to examine relationships between demographic variables and perceptions of tourism's economic contributions and workforce development challenges, thereby assessing whether stakeholder characteristics influence tourism outcomes.

III. RESULTS AND DISCUSSIONS

This presents, analyzes, and interprets the findings on the status of tourism in Lagayan, Abra: a baseline assessment as perceived by the respondents. It covers the demographic profile of the respondents; the economic contribution of tourism; the challenges and barriers in workforce development; the relationship between the demographic profile of the respondents and the economic contributions of tourism; and the tourism operational standards that may be formulated to improve tourism management in Lagayan, Abra.

Problem 1. What is the demographic profile of the respondents in terms of:

- a. age,
- b. sex,
- c. educational attainment,
- d. employment status, and
- e. number of years in the service?

Table 1 presents the demographic profile of the 250 respondents in terms of age, sex, educational attainment, employment status, and number of years in service. This pattern suggests

that tourism-related participation in Lagayan is largely carried by community members who are economically active and directly involved in livelihood-generating activities.

Table 1
Demographic Profile of the Respondents

Profile	Frequency (N=250)	Percentage (%)
a. Age		
15-24	23	9.20
25-34	52	20.80
35-44	92	36.80
45-54	58	23.20
55 and above	25	10.00
Total	250	100.00
b. Sex		
Male	183	73.20
Female	67	26.80
Total	250	100.00
c. Educational Attainment		
Doctoral Degree	0	0.00
Master's Degree	5	2.00
College Graduate	25	25.00
College Level	39	15.60
High School Graduate	98	39.20
High School Level	63	25.20
Elementary Graduate	20	8.00
Total	250	100.00
d. Employment Status		
Full-time permanent	46	18.40
Part-time	0	0.00
Seasonal Worker	75	30.00
Temporary/Contractual	71	28.40
Self-employed/own business	58	23.20
Total	250	100.00
e. Number of Years in Service		
Less than 6 months	5	2.00
6 months to 1 year	17	6.80
2-3 years	76	30.40
4-5 years	67	26.80
6 years and above	85	34.00
Total	250	100.00

This interpretation is consistent with literature showing that tourism has strong potential to support employment, livelihoods, and community participation, especially in rural and



emerging destinations where local residents directly engage in tourism-related activities and enterprises (UNWTO, 2019; Drăghici et al., 2019; Gyimóthy et al., 2021).

On Age. The largest group of respondents belongs to the 35–44 years old bracket, with 92 respondents or 36.80%, followed by those aged 45–54 years old and 25–34 years old with 58 or 23.20% and 52 or 20.80% respectively. These aged 55 and above account 25 or 10.00%, while 15–24 years old comprised 23 or 9.20%. This indicates that most respondents are in their middle-adult years, suggesting that tourism-related activities in Lagayan are largely handled by individuals already in their productive working years. Since this age group is commonly associated with economic responsibility, work experience, and active community participation, these respondents may be better positioned to observe and assess the economic contributions of tourism. Literature shows that residents' perceptions of tourism impacts can vary across socio-demographic groups such as age, since people in different life stages tend to experience tourism-related changes differently and may hold different expectations regarding tourism's benefits and effects in their communities (Ap, 1992; Alrwajfah et al., 2019).

On Sex. The majority of the respondents are male, with 183 or 73.20%, while 67 or 26.80% are female. This suggests that male respondents dominate the sample and may reflect the actual composition of those who are more visibly engaged in tourism-related activities in the locality. In many local settings, men are more often represented in physically demanding, transport-related, or field-based tourism work, while women may participate in other forms of support, enterprise, or service activities. However, the table mainly indicates representation in the sample rather than superiority of contribution. Studies likewise indicate that tourism participation and perceived benefits may differ by sex, since men and women often occupy different roles and experience tourism opportunities differently within local economies (Ilona et al., 2022; Alrwajfah et al., 2019).

On Educational Attainment. The largest group respondents were high school graduates, with 98 respondents or 39.20% of the total sample. This was followed by respondents with high school-level education (63 or 25.20%), college-level (39 or 15.60%), college graduates (25 respondents), elementary graduates (20 or 8.00%), and master's degree holders (5 or 2.00%). No respondent reported having a doctoral degree. This suggests that most respondents have basic to intermediate educational preparation, which may indicate that tourism-related work in Lagayan remains accessible even to those without advanced formal education. This result suggests that educational attainment does not consistently produce major differences in residents' perceptions of tourism, particularly when tourism's economic effects are already visible and widely experienced within the community (Ilona et al., 2022). At the same time, educational background remains important in shaping access to better employment opportunities and professional mobility within the tourism sector (Baum & Hai, 2019).

On Employment Status. The highest proportion of respondents are seasonal workers, with 75 or 30.00%, followed by temporary/contractual workers with 71 or 28.40%, meanwhile, self-employed or owners of businesses account for 58 or 23.20%, and full-time permanent workers with 46 or 18.40%. No respondent reported being part-time. This distribution suggests that tourism-related work in Lagayan is strongly associated with non-permanent and flexible forms of employment. Such a pattern is understandable because tourism is often labor-intensive, demand-driven, and linked to micro, small, and medium-sized enterprises, many of which rely on seasonal, temporary, or self-employment arrangements. This interpretation emphasizes that employment status and degree of involvement in tourism influence how residents assess

tourism's contributions, since those directly engaged in tourism-related work, enterprise, or service delivery are more likely to develop clearer and more grounded perceptions of its benefits and impacts (Brida et al., 2014; Ap, 1992).

On Number of Years in Service. The largest group of respondents had rendered 6 years and above of service, accounting for 85 or 34.00% of the total sample. This was followed by those with 2–3 years of service (76 or 30.40%) and 4–5 years (67 or 26.80%). On the other hand, respondents with 6 months to 1 year of service totaled 17 or 6.80%, while those with less than 6 months of service were the fewest, with 5 or 2.00%. This indicates that many respondents already have considerable experience in their work or service involvement. The result may imply that a large portion of the respondents have had enough exposure to tourism-related activities to form informed perceptions regarding its economic effects. Studies on residents' perceptions of tourism also emphasize that differences in experience, occupation, and length of exposure to tourism can shape how people assess its impacts in their communities (Timothy & Said, 2023; Ap, 1992).

Problem 2. To what extent does tourism contribute to the economic development of the municipality in terms of:

- a. revenue generation,
- b. infrastructure and development,
- c. community livelihood and empowerment, and
- d. economic inclusivity?

Table 2 presents the respondents' assessment of tourism's contribution to the economic development of Lagayan in terms of revenue generation.

Table 2

Tourism Contribution to the Economic Development of the Municipality in Terms of Revenue Generation

Revenue Generation	Mean	DE
1. Tourism increases local income and economy.	4.61	VH
2. Tourism increases business opportunities and investments.	4.50	VH
3. Tourism provides economic benefits.	4.50	VH
Area Mean	4.54	VH

Legend:

Statistical Limit	Descriptive Equivalent (DE)
4.21–5.00	Very High (VH)
3.41–4.20	High (H)
2.61–3.40	Moderate (M)
1.81–2.60	Low (L)
1.00–1.80	Very Low (VL)

The table shows an overall mean of 4.54, interpreted as “very high”, indicating that tourism is perceived to contribute to a very high extent to Lagayan's economic development through revenue generation. This result means that the community broadly recognizes tourism as a real and substantial economic force, not merely as a supplementary activity, but as one that is



already producing visible financial returns for the municipality and its residents. The high mean further implies that the economic effects of tourism, particularly through visitor spending and fee collection, are widely felt across different sectors of the local economy. In a rural municipality such as Lagayan, where income opportunities are often limited and closely tied to traditional livelihoods such as farming and small-scale trade, this finding is particularly significant. It suggests that tourism is actively expanding the local economic base, providing residents and local enterprises with income streams that would otherwise be unavailable, and strengthening the municipality's overall capacity for economic growth.

Beyond the respondents' perceptions, actual local revenue figures provide concrete empirical grounding for this interpretation. Tourism-related revenue in Lagayan increased from ₱625,790 in 2023 to ₱1,415,710 in 2024, representing a growth of more than 126.23% within a single year. Tourist arrivals likewise rose from 20,718 in 2023 to 36,500 in 2024, further confirming that the increasing volume of visitors is helping drive municipal revenue growth. The magnitude of this increase suggests that Lagayan's tourism sector is gaining momentum and, if properly supported through sustained infrastructure investment, workforce development, and inclusive policy, may hold considerable potential for long-term revenue generation. This aligns with the study's broader goal of providing an evidence-based foundation for strategic tourism planning and policy formulation in the municipality.

This finding is consistent with the existing literature, which shows that tourism promotes economic growth through visitor spending, employment generation, entrepreneurship, investment, and multiplier effects across interconnected sectors such as transport, retail, hospitality, and services (Brida et al., 2020; Drăghici et al., 2019). These multiplier effects are particularly significant in rural settings, where tourism can revitalize local economies, provide new revenue streams, and strengthen community resilience (Drăghici et al., 2019). Rural and community-based tourism studies likewise affirm that tourism contributes positively to local income, household earnings, and broader economic participation (Jujia et al., 2025; Azahra et al., 2023; Parilla et al., 2020; Libosada, 2019), while related literature highlights tourism's capacity to support micro-enterprise development and strengthen local value chains (Pulhin et al., 2021; Moreno & Tejada, 2020; PIDS, 2020). The present result supports these studies by showing that tourism in Lagayan is already generating the kind of revenue growth and economic momentum that previous research associates with tourism-led local development. It also aligns with SDG 8, which calls for sustained and inclusive economic growth and the promotion of decent work through productive tourism activities (United Nations, 2015; UNWTO, 2017).

The indicator "tourism increases local income and the economy" garnered the highest weighted mean of 4.61, interpreted as "very high". This result means that respondents most clearly and consistently perceive tourism as a direct contributor to their income and to the local economy as a whole. The high rating may be attributed to the community's direct experience with the tangible economic impacts of tourism, particularly through the collection of localized fees at major tourist sites. For instance, the consistent collection of admission fees at Lusuac Spring Resort, alongside the environmental fees at Ar-Arbis Falls and Barusibis Falls, provides immediate capital that circulates within the local economy. Beyond institutional revenue, these activities also directly benefit the local workforce, as tour guides at these sites may increase household income through service fees and tips from activities such as river tubing and bamboo rafting. This localized cash flow suggests that tourism helps reduce economic leakage by keeping wealth generated from natural assets within the community rather than allowing it to



flow to external operators or suppliers. The high mean score likewise reflects respondents' recognition that tourism stimulates spending across local markets by increasing demand for transportation services, local food establishments, and small retail businesses, while also generating employment and household income. This implies that the economic impact of tourism in Lagayan is not limited to a single point of transaction, but is distributed across multiple livelihood sectors within the municipality, reinforcing tourism's role as a meaningful livelihood diversification strategy in a rural setting where agricultural income alone is often insufficient to sustain household welfare (Brida et al., 2020; Drăghici et al., 2019; Pulhin et al., 2021).

These observations emphasize that tourism expands local income, stimulates business activity, and produces multiplier effects across transport, retail, food supply, and other local enterprises, thereby strengthening the broader local economy (Brida et al., 2020; Drăghici et al., 2019). These findings show that respondents strongly perceived that tourism in Lagayan increases local income and stimulates spending across transportation, food establishments, and small retail businesses. *ujia et al. (2025)* and *Azahra et al. (2023)* similarly reported that residents in rural tourism destinations viewed tourism as a factor that stimulates entrepreneurial intentions and tourism-related activities, echoing the community's recognition in Lagayan that tourism functions not only as a source of visitors but also as a broader driver of economic participation. Furthermore, World Bank analyses of nature-based tourism showed that tourist spending can generate substantial increases in local household incomes and jobs in surrounding communities, validating the pattern observed in Lagayan, where tourism-related fees, guide earnings, and visitor spending are perceived to translate into real and distributed financial gains for residents and the municipality.

Both indicators, "tourism increases business opportunities and investments" and "tourism provides economic benefits", obtained weighted means of 4.50, interpreted as "very high". These results indicate that respondents perceive tourism in Lagayan not only as a direct source of income but also as an important activity that creates wider business opportunities and economic benefits within the municipality. The very high ratings may be associated with the increase in tourist arrivals from 20,718 in 2023 to 36,500 in 2024, which may help explain the stronger economic activity in the locality, especially through increased demand for goods and services related to tourism. This is reflected in the way tourism stimulates local entrepreneurship and livelihood opportunities for both direct and indirect beneficiaries. Among the direct beneficiaries are those engaged in essential tourism-related services such as homestays, food services or eateries, and transportation. In particular, private tricycle operators for hire have increasingly benefited from the growing number of visitors needing transport to tourism sites such as Ar-Arbis Falls. The result likewise points to tourism's role in encouraging local investment and enterprise expansion, as tourism demand creates incentives for residents to participate in service provision and related income-generating activities. Even the Kimmatre, Kimmampana, and Simmembaan caves, although temporarily closed due to the lack of safety materials, represent latent opportunities for future investment, as their reopening could further expand the range of tourism products and create additional livelihood opportunities in the municipality.

Equally significant, the very high ratings of these indicators indicate that the economic effects of tourism extend beyond direct tourism service providers into the wider local economy. The influx of tourists has not only benefited those who directly interact with visitors but has also created indirect income opportunities for various local suppliers and small business owners. The increased demand from tourists and hospitality businesses helps sustain the livelihoods of meat

shop owners, frozen goods sellers, and talipapa vendors who supply ingredients and necessities to local eateries and tourism-related food services. Similarly, sari-sari store owners near major transit points and attractions benefit from incidental purchases by travelers and visitors.

This pattern illustrates that the money brought in by tourism does not stop at entrance fees or direct service payments, but continues to circulate within the local economy through a network of supporting businesses and day-to-day commercial transactions, reflecting the multiplier effect of tourism, where visitor spending triggers additional rounds of local economic activity and enables a broader segment of the community to benefit (Brida et al., 2020; Drăghici et al., 2019). This also aligns with SDG 8, Target 8.9, which promotes sustainable tourism policies that generate jobs and preserve local culture and products, underscoring the importance of ensuring that tourism's business and economic benefits in Lagayan are both inclusive and sustained over time (United Nations, 2015; UNWTO, 2017).

Notably, although all indicators were rated very high, the slight difference in mean scores suggests that while respondents clearly recognize the increase in business opportunities and economic benefits, the long-term stability of these benefits may still be viewed with some caution. This may be explained by the seasonal nature of tourism in Lagayan, where visitor flows and related earnings can fluctuate throughout the year, a pattern consistent with broader findings on rural tourism, where seasonality remains one of the most persistent constraints on income stability and workforce continuity (Tóth et al., 2025; ILO, 2025). While tourism is clearly contributing to local enterprise and economic activity, the continuity of these benefits may depend on the municipality's ability to maintain visitor demand even during off-peak periods. This highlights the importance of strategic planning and tourism product diversification to ensure that economic benefits are not only strong during peak seasons but are also sustained over time. In this regard, attractions such as Gaco Park and the accredited caves, once safety concerns are fully addressed, may be developed further to help create a more stable and continuous flow of visitors, revenue, and livelihood opportunities, thereby strengthening both the local government's revenue base and the income of the wider network of vendors, transport providers, food service operators, and small entrepreneurs who depend, directly or indirectly, on tourism activity in Lagayan.

The patterns observed in Lagayan are further affirmed by a broader body of literature on tourism's role in creating business opportunities and generating wide-ranging economic benefits, particularly in rural communities. Rural and community-based tourism studies demonstrate that tourism contributes positively to local income, employment, household earnings, and community participation in economic activities (Jujia et al., 2025; Azahra et al., 2023; Parilla et al., 2020; Libosada, 2019), while farm and agritourism research highlights tourism's capacity to strengthen local value chains, support micro-enterprises, and produce spillover effects in industries that benefit indirectly from tourism demand (Pulhin et al., 2021; Moreno & Tejada, 2020; PIDS, 2020).

Table 3 illustrates the respondents' evaluation of tourism's role in infrastructure and development, yielding an overall area mean of 4.52 interpreted as "very high".

Table 3

Tourism Contribution to the Economic Development of the Municipality in Terms of Infrastructure and Development

Infrastructure and Development	Mean	DE
1. Tourism improves infrastructure and public services.	4.54	VH
2. Tourism development improves facilities and amenities.	4.53	VH
3. Tourism contributes to community development.	4.49	VH
Area Mean	4.52	VH

Legend:

Statistical Limit	Descriptive Equivalent (DE)
4.21–5.00	Very High (VH)
3.41–4.20	High (H)
2.61–3.40	Moderate (M)
1.81–2.60	Low (L)
1.00–1.80	Very Low (VL)

This result indicates that respondents broadly associate tourism with concrete and observable improvements in the municipality's physical environment, including roads, facilities, public services, and community spaces. These improvements are not perceived as isolated or limited to a single site, but are recognized across multiple areas of the municipality. This is particularly significant in a rural setting such as Lagayan, where access, service delivery, and public amenities are essential to daily life, and where infrastructure gaps, including poor road networks, insufficient lodging, and inadequate emergency services, have historically constrained tourism growth and broader community development (Busalla, 2025; Mirabueno, 2014; Ratilla et al., 2023). The result implies that tourism is functioning not only as an economic activity but also as a catalyst for development, encouraging local government and other stakeholders to invest in physical improvements that benefit both visitors and residents. Moreover, the finding denotes that tourism-driven infrastructure development in Lagayan is already producing tangible outcomes that the community can recognize and appreciate.

These results are also well-grounded in the existing literature on tourism and infrastructure development. Brida et al. (2020) and Drăghici et al. (2019) explained that tourism-related investments in transportation, lodging, amenities, and support services enhance local development and support broader socioeconomic growth, while Busalla (2025) noted that rural tourism can improve living standards and contribute to rural development in host communities.

The highest-rated indicator, "tourism improves infrastructure and public services", obtained the weighted mean of 4.54, interpreted as "very high". This result means that among all infrastructure-related effects, respondents most readily associate tourism with concrete improvements to roads, access routes, signage, and public service delivery. The high rating may be attributed to the development and strengthening of eco-tourism destinations such as Ar-Arbis Falls and Mt. Pugao, where the growth of tourist arrivals has created a clear need for improved access roads, directional signage, and transportation systems. These infrastructure improvements not only support tourist mobility but also benefit residents by enhancing connectivity between barangays and the town center, suggesting that tourism-driven development in Lagayan produces spillover benefits that extend beyond the tourism sector itself. The perceived improvement in

public services may further reflect greater government attention to tourism-related concerns, such as safety, sanitation, and emergency preparedness, which are particularly important for maintaining the quality and reputation of attractions like Lusuac Spring Resort. This implies that tourism is creating institutional pressure on local government to improve service standards, a development that ultimately benefits the wider community and reinforces the case for continued investment in tourism as a long-term strategy for rural development in Lagayan.

The result mirrors findings from previous studies, which emphasized that tourism stimulates infrastructure investment and service improvement as part of destination development. Brida et al. (2020) noted that investments in infrastructure help rural tourism destinations attract visitors, while Drăghici et al. (2019) identified public services and basic infrastructure as essential components of rural tourism development and destination competitiveness.

Furthermore, the indicator “tourism development improves facilities and amenities” obtained a weighted mean of 4.53, also interpreted as “very high.” This result means that respondents widely recognize tourism as a driver of physical improvements to the spaces, support facilities, and amenities that serve both visitors and residents. The high rating may be attributed to visible improvements and beautification efforts in key tourism areas, particularly around Lusuac Spring Resort and in other public spaces such as Gaco Park, where tourism activity has prompted the municipality to invest in more attractive, functional, and visitor-friendly environments. These developments suggest that tourism creates a demand-driven incentive for continuous facility improvement, benefiting not only tourists but also the local community that uses these spaces in daily life. At the same time, the result implies that as tourism demand continues to grow, there is a pressing need to further develop facilities and amenities at underdeveloped sites. For instance, Barusibis Falls may require better sanitation facilities, rest areas, and other support amenities to ensure convenience and comfort for both tourists and local users. Likewise, the Kimmatre, Kimmampana, and Simmembaan caves, once fully equipped with necessary safety equipment, would benefit from improved visitor facilities and site support systems to make them safer, more accessible, and better suited for tourism activities. These facility development decisions, however, must be grounded in systematic and evidence-based planning. The municipality’s own experience illustrates this need: the acquisition of kayaks unsuited to local conditions led to underutilization and inefficient use of public resources, underscoring the critical importance of facility planning that is responsive to actual site conditions and verified visitor needs.

This finding is strongly supported by previous studies on tourism facilities and amenity development. Brida et al. (2020), Busalla (2025), and Ratilla et al. (2023) explained that investments in tourism infrastructure, including transportation, accommodation, and recreational facilities, are essential to tourism development and also influence local economic progress. Similarly, Brida et al. (2020); Busalla (2025); Ratilla et al. (2023) emphasized that tourism amenities encompass support facilities such as rest areas, toilets, parking spaces, food outlets, and other visitor services that directly improve destination quality.

The indicator “tourism contributes to community development” obtained the lowest weighted mean of 4.49, though it still falls within the “very high” range. This result means that while respondents affirm tourism’s contribution to community development, this dimension is perceived as somewhat less immediate or visible compared with the more tangible improvements in infrastructure, public services, facilities, and amenities. The slightly lower rating may be attributed to the nature of community development itself, which typically involves broader and

longer-term changes, such as increased community participation, improvements in social well-being, and more equitable access to development opportunities, that are not as easily observed as physical projects like roads, signage, or resort improvements. While the visible development of places such as Lusuac Spring Resort and Barusibis Falls provides immediate, observable evidence of tourism-related progress, these broader community-level outcomes may take longer to fully materialize and be recognized. The Kimmatre, Kimmampana, and Simmembaan caves further illustrate this gap. Although these sites represent significant future community development opportunities, their current closure due to the lack of safety materials may limit the extent to which respondents currently associate them with broader community gains. The slightly lower mean, therefore, suggests that tourism's community-level benefits in Lagayan are real but still emerging.

This finding is consistent with the literature, which emphasizes that tourism-led development must be balanced with broader social and community development to produce sustainable, long-term benefits. Busalla (2025), Gabito (2021), and Parilla et al. (2020) emphasized that rural and community-based tourism contributes most effectively to community development when it is linked with local participation, inclusive planning, and long-term development strategies.

Taken as a whole, the results across all indicators under this dimension reveal a meaningful pattern: respondents most strongly recognize tourism's contribution to tangible and immediate physical improvements, while its broader community-level benefits, though real and affirmed, remain somewhat less visible and are still in an emerging stage. This underscores the need for Lagayan to pair its infrastructure gains with deliberate community-based planning, local participation, and sustained human capital investment, ensuring that the physical growth of tourism translates into genuinely inclusive and sustainable progress for all residents. These insights directly inform the development of the Tourism Operations Manual proposed in this study, which aims to provide Lagayan with a structured framework for aligning infrastructure development with community empowerment and long-term tourism sustainability.

Table 4 presents the respondents' assessment of tourism's contribution to the economic development of the municipality in terms of community livelihood and empowerment.

Table 4

Tourism Contribution to the Economic Development of the Municipality in Terms of Community Livelihood and Empowerment

Community Livelihood and Empowerment	\bar{X}	DE
1. Tourism creates jobs and livelihood opportunities.	4.67	VH
2. Tourism improves quality of life and personal opportunities.	4.55	VH
3. Tourism empowers communities and increases pride.	4.51	VH
Area Mean	4.58	VH

Statistical Limit

4.21–5.00
 3.41–4.20
 2.61–3.40
 1.81–2.60

Descriptive Equivalent (DE)

Very High (VH)
 High (H)
 Moderate (M)
 Low (L)



1.00–1.80

Very Low (VL)

Legend:

The table shows an overall mean of 4.58, interpreted as “very high”. This indicates that respondents broadly recognize tourism not only as a source of economic activity, but also as a meaningful force that creates tangible benefits for local households and the wider community. The very high perception further indicates that the livelihood and empowerment benefits of tourism are widely felt across different groups of respondents, including tourism workers, local entrepreneurs, barangay officials, and employees from supporting sectors. In Lagayan, where employment options are often limited and many households continue to depend on traditional income sources such as farming and small-scale trade, this finding is particularly significant. It suggests that tourism is already helping expand the range of livelihood opportunities available to local residents, reduce dependence on a narrow set of income sources, and strengthen the community’s capacity to participate in and benefit from local development.

This finding is consistent with the literature, which identifies tourism as an important contributor to local livelihoods, entrepreneurship, and community development. Studies from Southeast Asia have shown that community-based tourism contributes positively to local income generation, employment, cultural conservation, and community engagement when residents are actively involved in tourism activities (Jujia et al., 2025; Azahra et al., 2023; Widiartanto et al., 2022). Research on farm tourism and agritourism has likewise emphasized that tourism provides supplementary income, supports women and youth employment, and strengthens local economic linkages (Pulhin et al., 2021; Moreno & Tejada, 2020; PIDS, 2020).

Among the indicators, “tourism creates jobs and livelihood opportunities” obtained the highest mean of 4.67, interpreted as “very high”. This means that respondents most clearly and consistently recognize tourism as a direct source of employment and livelihood opportunities for the local population. The high rating may be attributed to the visible and practical ways in which tourism creates both direct and indirect work opportunities across the municipality. In Lagayan, this is reflected in the work of tour guides assisting visitors at local attractions, private tricycle operators transporting tourists to sites such as Ar-Arbis Falls, and food service providers and small vendors whose businesses benefit from tourism-related demand. These examples indicate that tourism is already helping diversify local income sources and reduce dependence on a limited set of traditional livelihood options. This implies that tourism in the area is perceived not merely as attracting visitors, but as creating real, distributed work opportunities that support local households and strengthen community livelihoods across multiple sectors.

This result affirms that tourism is an important source of jobs and livelihood opportunities, especially in rural settings. Brida et al. (2020) and Drăghici et al. (2019) explained that tourism in rural areas increases residents’ income potential, creates employment opportunities, and diversifies the local economic base, while Pulhin et al. (2021), Moreno and Tejada (2020), and PIDS (2020) found that tourism inflows generate employment spillovers that extend into non-tourism industries through increased demand for local goods and services. Jujia et al. (2025) and Azahra et al. (2023) similarly reported that residents in rural tourism destinations recognize tourism as a driver of entrepreneurial intentions and broader economic participation.

The indicator “tourism improves quality of life and personal opportunities” obtained a mean of 4.55, interpreted as “very high”. This indicates that respondents perceive tourism as



contributing not only to income and employment, but also to broader improvements in living conditions and opportunities for individual advancement. The result suggests that tourism is associated with outcomes that go beyond immediate earnings, including improved household welfare, broader access to opportunities, and greater chances for personal growth. In Lagayan, this is reflected in the way tourism enables residents to engage in activities that build practical competencies such as hospitality service, tour guiding, food preparation, small business management, customer interaction, and destination promotion. These experiences may strengthen the confidence, employability, and long-term earning potential of local residents. Increased tourism activity may also contribute indirectly to better living conditions by strengthening income security, supporting local enterprises, and encouraging improvements in local services and community spaces. This suggests that tourism in Lagayan is perceived not only as a means of earning income, but also as a factor that improves the quality of daily life and broadens personal opportunities.

This result further supports the role of tourism in enhancing welfare and expanding personal opportunities for local residents. Drăghici et al. (2019) and Gyimóthy et al. (2021) noted that rural tourism can improve living standards and contribute to rural development in host communities, while Mbaiwa (2022) and Adu-Ampong (2020) emphasized that tourism-driven livelihood improvements are maximized when communities possess adequate social capital and institutional support. Studies in tourism labor markets further show that workers equipped with tourism-related competencies experience improved employability and upward Penco et al. (2022); Minor et al. (2024); Dacanay & Macabenta (2021); CHED (2020).

The indicator “tourism empowers communities and increases pride” obtained the lowest weighted mean of 4.51, thought still interpreted as “very high”. This result indicates that respondents affirm tourism’s contribution to community empowerment and local pride, but these outcomes are perceived as somewhat less immediate or visible than the more tangible livelihood and quality-of-life benefits of tourism. The slightly lower rating may be attributed to the nature of empowerment itself, which develops over time and depends on the community’s active participation in tourism-related planning, decision-making, and benefit-sharing. While job creation, income generation, and physical improvements are more directly and immediately observed, empowerment outcomes — such as stronger community identity, deeper participation, collective pride, and greater local ownership over tourism development — tend to emerge more gradually and require sustained institutional support. In Lagayan, tourism contributes to community pride by encouraging residents to value and actively promote local attractions such as Lusuac Spring Resort, Ar-Arbis Falls, Barusibis Falls, and the municipality’s caves and natural landscapes. The growing number of visitors — from 20,718 in 2023 to 36,500 in 2024 — reflects an increasing external recognition of these attractions, and this visibility is already strengthening residents’ sense of place and their appreciation of Lagayan’s identity as an emerging tourism destination. However, the extent to which tourism genuinely empowers the community depends on whether local residents are actively involved in shaping tourism activities and in receiving fair and meaningful benefits from them. This implies that while tourism in Lagayan is already perceived to enhance local pride and empowerment, deepening these effects will require more deliberate efforts toward inclusive governance, community participation, and equitable benefit distribution.

This finding emphasizes that tourism empowers communities most effectively when local people are actively involved in tourism development. Community-based tourism research

demonstrates that tourism allows communities to become active participants rather than passive beneficiaries, thereby strengthening local participation, community advancement, and entrepreneurship (Gabito, 2021; David & Du, 2018; Libosada, 2019). Studies on rural and community-based tourism in Southeast Asia likewise showed that tourism contributes to local identity, engagement, and community development when initiatives are linked with meaningful local participation and equitable benefit-sharing (Jujia et al., 2025; Azahra et al., 2023; Widiartanto et al., 2022). Gabito (2021), Parilla et al. (2020), and Libosada (2019) further emphasized that community-based tourism contributes most effectively to empowerment when it is embedded in inclusive planning and long-term development strategies — a condition that remains essential for Lagayan as it continues to develop its tourism sector.

Table 5 presents the respondents' assessment of tourism's contribution to the economic development of the municipality in terms of economic inclusivity. The table shows an overall mean of 3.84, interpreted as "high", indicating that tourism's contribution to economic inclusivity is perceived to a high extent.

Table 5

Tourism Contribution to the Economic Development of the Municipality in Terms of Economic Inclusivity

Economic Inclusivity	Mean	DE
1. Fair distribution of tourism benefits.	3.74	H
2. Tourism benefits all community members.	3.70	H
3. Women and youth employment in tourism.	3.91	H
4. Pro-poor tourism and inclusive growth frameworks.	4.02	H
Area Mean	3.84	H

Legend:

Statistical Limit	Descriptive Equivalent (DE)
4.21–5.00	Very High (VH)
3.41–4.20	High (H)
2.61–3.40	Moderate (M)
1.81–2.60	Low (L)
1.00–1.80	Very Low (VL)

This indicates that tourism provides opportunities for broader participation in economic activities, particularly in employment, access to livelihoods, and involvement in tourism-related enterprises. At the same time, compared with the other dimensions of tourism development, economic inclusivity appears to be less strongly emphasized. This implies that while tourism generates economic benefits, this may not be equally distributed across all sectors of the community. In Lagayan, this is particularly evident when considering that tourism activity is largely concentrated around a limited number of sites and enterprises — such as Lusuac Spring Resort, Ar-Arbis Falls, and a small cluster of transport operators and food vendors — meaning that residents who are geographically distant from these sites or who lack the capital and connections to enter tourism-related businesses may experience fewer direct benefits. The result reflects respondents' perception that tourism contributes to inclusive economic development, but



equity, access, and participation remain important concerns that need to be addressed deliberately.

This finding is consistent with the literature, which emphasizes that tourism does not automatically result in equitable benefit distribution unless supported by inclusive governance, effective policies, and community-centered approaches. Unequal access to capital, education, institutional support, and networks often concentrates tourism benefits among a limited group of stakeholders, thereby reinforcing existing disparities (Ejaz Ali Khan et al., 2021; Granath, 2023; Kumail et al., 2023; Castilho & Fuinhas, 2025). Similarly, community-based tourism and inclusive tourism models have been shown to improve participation and broaden access to tourism benefits when local communities are actively involved in planning, management, and benefit-sharing (Gabito, 2021; Parilla et al., 2020; Jujia et al., 2025; Azahra et al., 2023).

The indicator “pro-poor tourism and inclusive growth frameworks” obtained the highest mean of 4.02, interpreted as “high”. This suggests that respondents perceive tourism’s role in promoting inclusive economic growth to a high extent. The result indicates that tourism-related programs and initiatives are seen as contributing to the inclusion of marginalized sectors by providing access to employment, entrepreneurship, and community-based opportunities. In the context of Lagayan, this may be reflected in tourism’s ability to create opportunities not only for those directly employed in tourism sites, but also for small vendors, transport providers, food service workers, and other community members who benefit from related tourism activity. In this sense, tourism is viewed as a mechanism that can help reduce economic disparities by creating entry points for participation among low-income and underserved groups. This implies that strengthening pro-poor tourism frameworks in Lagayan — through targeted livelihood programs, microenterprise support, and inclusive tourism planning — could further deepen these inclusive gains and ensure that the benefits of tourism growth are more widely and equitably shared across the community.

These studies that emphasize that pro-poor and community-based tourism approaches enhance participation among disadvantaged sectors when inclusive policies and local support systems are in place. Community-based tourism in both the Philippine and Southeast Asian contexts has been shown to generate livelihood opportunities and expand local participation in tourism-related economic activities (Gabito, 2021; Parilla et al., 2020; Jujia et al., 2025; Azahra et al., 2023).

Moreover, employment opportunities of women and youth employment in tourism, obtained a weighted mean of 3.91, interpreted as “high”. The respondents perceive that tourism provides employment opportunities for women and youth to a high extent. The result suggests that tourism is considered an accessible sector that offers a wide range of job opportunities requiring varying levels of skills and education. In Lagayan, such opportunities may be found in tourism-related services, where women and younger residents can participate in food preparation, accommodation support, customer service, retail, guiding, and small-scale entrepreneurial activities. This also implies that tourism contributes to social inclusion by enabling these groups to participate more actively in the economy and to strengthen their financial independence. Additionally, these opportunities may support skills development in hospitality, communication, service delivery, and small business management, thereby strengthening longer-term employability.

Tourism can support women and youth employment, especially through farm tourism, micro-enterprise development, and community-based tourism initiatives (Pulhin et al., 2021;



Moreno & Tejada, 2020; PIDS, 2020). The literature also highlights that tourism aligns with SDG 5 by creating opportunities for women and marginalized groups to engage in employment, entrepreneurship, and leadership when barriers to participation are addressed (UNWTO, 2023).

The indicator referring to the fair distribution of tourism benefits, obtained a weighted mean of 3.74, interpreted as “high”. It is perceived that tourism benefits is being fairly distributed to a high extent, although not as strongly as the highest-rated indicators. The comparatively lower score denotes that while tourism is broadly seen as beneficial, the community does not yet fully perceive its gains as equitably shared — suggesting that respondents recognize the uneven distribution of tourism benefits within the community. This suggests that while tourism contributes to economic growth, the fairness of benefit distribution still varies across community members. This means that, some groups may have greater access to tourism-related income, opportunities, and support than others. This may be influenced by factors such as location, access to capital, existing business ownership, knowledge of tourism opportunities, and proximity to tourism sites. The result, suggests that tourism in Lagayan is already providing benefits across the community, but that the extent of fairness in how these benefits are shared may still require deliberate policy attention and strengthening.

Studies show that tourism benefits are often unevenly experienced across destinations and stakeholder groups, particularly when access to capital, training, and institutional support is limited (Ejaz Ali Khan et al., 2021; Kumail et al., 2023; Castilho & Fuinhas, 2025). Similarly, studies on tourism inequality show that equitable participation and benefit-sharing are essential to ensuring that tourism development contributes to inclusive growth rather than deepening disparities (Zhang et al., 2022; Chi, 2021).

However, the lowest-rated indicator on tourism benefits all community members, which obtained a weighted mean of 3.70, which is interpreted as “high”. Although this indicator received the lowest mean score, it still reflects a high perceived contribution of tourism to economic inclusivity. Nevertheless, the result suggests that tourism’s benefits are not yet equally experienced by all members of the community. The result implies that disparities in access to resources, participation opportunities, and the concentration of tourism activities may influence the distribution of benefits. In some cases, tourism investments and opportunities may be concentrated in specific sites, groups, or sectors, thereby limiting broader community inclusion. In the context of the study, this means that residents directly connected to tourist sites such as Lusuac Spring Resort and Ar-Arbis Falls, or those operating tourism-related transport and food services along primary visitor routes, experience greater and more immediate benefits than upland barangay residents, subsistence farmers, or households that lack the resources or proximity to engage with tourism activity. Although tourism is already benefiting many members of the community, the result suggest that its reach may not yet be fully inclusive, and targeted efforts are needed to extend tourism gains to underserved groups. These studies affirm that tourism in Lagayan is perceived to be beneficial, but that stronger inclusive tourism strategies are still needed to ensure that benefits reach a wider range of community members.

The works of Zhang et al. (2022), Li & Sun (2023) and Granath (2023) note that tourism development does not automatically lead to equitable benefit distribution unless accompanied by inclusive policies, community-centered planning, and effective governance. Unequal access to opportunities can reinforce pre-existing social and economic disparities if tourism benefits are captured by only a small number of stakeholders (Ejaz Ali Khan et al., 2021).



Problem 3. To what extent do respondents perceive the seriousness in the workforce development that limits sustainable tourism growth, in terms of:

- a. skills and education gaps,
- b. access and support systems,
- c. job quality and opportunities, and
- d. policy and community engagement?

Table 6 presents the respondents' assessment of the seriousness of workforce development issues that limit sustainable tourism growth in terms of skills and education gaps.

Table 6

Seriousness in the Workforce Development that Limit Sustainable Tourism Growth in Terms of Skills and Education Gaps

Skills and Education Gaps	Mean	DE
1. There are insufficient training opportunities for tourism workers.	3.40	M
2. Tourism workers lack required technical and soft skills for their jobs.	3.43	H
3. Existing training programs do not match job requirements.	3.25	M
4. Tourism graduates lack work-readiness skills.	3.35	M
5. Few young people are attracted to tourism careers due to limited skill development opportunities.	3.60	H
Area Mean	3.41	H

Legend:

Statistical Limit	Descriptive Equivalent (DE)
4.21–5.00	Very High (VH)
3.41–4.20	High (H)
2.61–3.40	Moderate (M)
1.81–2.60	Low (L)
1.00–1.80	Very Low (VL)

The table shows an overall mean of 3.41, interpreted as “high”, indicating that skills and education gaps are perceived to a high extent as challenges affecting workforce development in the municipality. This suggests that respondents are broadly aware that the current workforce preparation in Lagayan’s tourism sector falls short of what sustained, competitive tourism development demands. The result shows that skills and educational gaps continue to affect the sustainability of the tourism workforce in the municipality. Despite tourism’s positive contribution to economic development, limitations in training, skills development, and workforce readiness may constrain the sector's long-term sustainability. Tourism development depends not only on the presence of attractions and visitor demand, but also on the competence of the workforce that supports tourism operations. In Lagayan, this is particularly evident in the limited availability of formal tourism training programs within the municipality, the reliance of many tourism workers on informal or on-the-job learning, and the absence of a structured skills development pathway for residents seeking to enter or advance within the tourism sector.



Without adequate skills and education, the sector may struggle to maintain service quality, competitiveness, and sustained growth.

The result reflects the respondents' perception that tourism workforce development in Lagayan continues to face significant constraints in training and preparedness.

This finding shows that workforce readiness remains a persistent challenge in tourism, particularly in relation to both technical and soft skills such as communication, adaptability, digital literacy, sustainability practices, and service quality (Baum, 2015; Novelli et al., 2018; Radic et al., 2022; Penco et al., 2022). The literature further notes that many tourism and hospitality education programs continue to struggle to keep pace with technological and industry changes, especially in integrating practical and digital competencies into training and curricula (Minor et al., 2024; Penco et al., 2022; CHED, 2020; Dacanay & Macabenta, 2021).

It was revealed that few young people are attracted to tourism careers due to limited skill development opportunities obtained the highest weighted mean of 3.60, interpreted as "high". This points to a declining or limited level of interest among youth in pursuing tourism-related careers. The comparatively higher score among all indicators denotes that respondents view youth disengagement from tourism careers as the most pressing dimension of the skills and education gap — suggesting that the pipeline of future tourism workers in Lagayan is at risk if development opportunities are not expanded. The result suggests that when training opportunities are limited, career pathways are unclear, and skill development is insufficient, younger individuals may be discouraged from entering the tourism sector. Tourism is still developing, and formal training opportunities may not yet be widely available. This poses a serious concern for the long-term sustainability of the local tourism workforce, particularly given that visitor arrivals have been steadily increasing, increasing future demand for skilled, service-ready tourism personnel. If younger generations are not adequately engaged, prepared, and encouraged, the future continuity of tourism-related work in the municipality may be weakened. This implies that Lagayan's tourism development strategy must prioritize youth-oriented skills programs, career orientation initiatives, and accessible training pathways to cultivate the next generation of local tourism workers.

Studies indicate that weak curriculum-to-industry alignment, limited practical training, and restricted access to rural upskilling opportunities contribute to workforce mismatch and reduced career attractiveness in tourism (Dacanay & Macabenta, 2021; CHED, 2020; Penco et al., 2022; Minor et al., 2024).

Another important concern is reflected in the indicator "tourism workers lack required technical and soft skills for their jobs" obtained a weighted mean of 3.43, interpreted as "high", indicating notable gaps in workforce competencies. Despite active participation in tourism-related work, the result indicates that a significant portion of the local workforce has not yet developed the full range of competencies required to deliver competitive, consistent tourism services. This suggests that some tourism workers may not yet fully possess the technical expertise, communication skills, customer service competencies, and adaptability required in a service-oriented industry. Such deficiencies may affect the quality of service delivery, visitor satisfaction, and overall tourism performance — particularly as visitor numbers grow and expectations for service standards rise. This also implies that workforce development should not focus solely on creating jobs, but must also ensure that workers are sufficiently prepared to meet the actual demands of tourism work. This finding points to persistent deficiencies in both

technical and soft skills as a major barrier to workforce preparedness in tourism (Baum, 2015; Novelli et al., 2018; Radic et al., 2022).

The indicators on workforce training and graduate readiness collectively reflect a moderate but interconnected set of concerns in Lagayan's tourism sector. The indicator "there are insufficient training opportunities for tourism workers" obtained the highest weighted mean among the three at 3.40, followed by "tourism graduates lack work-readiness skills" at 3.35, and "existing training programs do not match job requirements" at 3.25, all interpreted as "moderate." While none of these scores signal an immediate crisis, their convergence indicates a systemic pattern: training opportunities are limited in scope, graduates enter the workforce underprepared, and the programs that do exist are misaligned with actual job demands. These gaps are not isolated; rather, they reinforce one another: insufficient access to training reduces practical exposure, which in turn widens the gap between graduate competencies and employer expectations, while structurally misaligned curricula ensure that even available training fails to produce job-ready workers.

The moderate ratings suggest that respondents in Lagayan recognize these deficiencies as real and present, though not yet critically disruptive to the workforce. This may be attributed to the limited scale of current tourism operations in the municipality, where the consequences of training gaps have not yet been fully felt. For instance, tourism workers in remote barangays such as those situated far from the municipal center may have little to no access to organized skills training, while informal tourism workers — such as local guides, homestay operators, and souvenir vendors — are often excluded from formal training programs due to scheduling, distance, and lack of information. Similarly, tourism graduates from nearby institutions may complete their degrees without sufficient industry exposure, as practicum placements in Lagayan remain limited and training curricula are rarely reviewed in consultation with local employers. These conditions illustrate how the three indicators are not merely abstract concerns but lived realities that shape the day-to-day capacity of Lagayan's tourism workforce. While these gaps may currently appear manageable given the municipality's modest tourism scale, they are unlikely to remain so. As the tourism sector grows and demands for service excellence and digital competence intensify, these moderate concerns risk becoming significant barriers. The results indicate that the municipality must take proactive steps to expand access to training, strengthen alignment between academic programs and industry needs, and build closer collaboration among higher education institutions, TESDA, and local tourism employers. This implies that practical interventions — such as mobile and community-based training delivery, industry-supervised practicums, employer-engaged curriculum reviews, and barangay-level skills programs — are not merely supplementary but essential to developing a competent and inclusive tourism workforce in Lagayan.

The urgency of these interventions confirms that the challenges observed in Lagayan are not unique but are part of a broader pattern in tourism workforce development. Penco et al. (2022) and Minor et al. (2024) noted that training insufficiency in tourism destinations is often characterized not by the complete absence of programs, but by their uneven distribution, limited reach, and structural misalignment with labor-market needs. CHED (2020) similarly emphasized that work-readiness gaps among tourism graduates are frequently attributed to the limited integration of practical training within academic programs.

Table 7 presents the respondents' assessment of the seriousness of workforce development issues that limit sustainable tourism growth in terms of access and support systems.

Table 7

Seriousness in the Workforce Development that Limit Sustainable Tourism Growth in Terms of Access and Support Systems

Access and Support Systems	Mean	DE
1. Tourism workers are excluded from local government programs supporting workforce development.	2.76	M
2. Limited internet and digital access constrain tourism workers' ability to improve services.	3.91	H
3. Access to financial support for tourism workers and micro-business owners is inadequate.	3.27	M
4. Poor transportation and road access reduce tourism job prospects.	3.88	H
Area Mean	3.46	H

Legend:

Statistical Limit	Descriptive Equivalent (DE)	As shown in the table, the overall mean of 3.46, interpreted as "high,"
4.21–5.00	Very High (VH)	
3.41–4.20	High (H)	
2.61–3.40	Moderate (M)	
1.81–2.60	Low (L)	
1.00–1.80	Very Low (VL)	

indicates that respondents collectively regard structural access barriers — spanning digital connectivity, physical infrastructure, financial resources, and institutional support — as seriously limiting the growth of sustainable tourism in the municipality. The high rating is attributed to Lagayan's geographic and socioeconomic conditions: its mountainous terrain restricts physical mobility, broadband infrastructure remains underdeveloped, and dedicated financial assistance programs for tourism micro-enterprises and informal workers are largely absent. These conditions are not abstract — a tourism worker operating a homestay in a remote barangay, for instance, may simultaneously lack reliable internet to accept online bookings, face high transport costs to attend training, and have no access to microfinancing to upgrade their facilities, illustrating how these barriers compound one another in practice.

This suggests that the high rating reflects a workforce that has directly experienced how these overlapping constraints limit their capacity to grow, compete, and deliver quality services. The result implies that sustainable tourism growth in Lagayan cannot be achieved through workforce motivation alone — it demands a coordinated, multi-sectoral response that simultaneously addresses digital access, infrastructure development, financial inclusion, and institutional capacity-building.

The present findings confirm that such barriers are not unique to Lagayan but reflect a broader pattern in rural tourism development. Hassan and Singh (2024) and UNWTO (2023) emphasize that limited access to support systems — including training facilities, financial services, and digital connectivity — continues to marginalize rural tourism populations. Hall (2021) and Rogerson and Baum (2023) similarly note that weak transportation networks, poor connectivity, and limited institutional support constrain entrepreneurship and participation in tourism value chains in rural areas, while Busalla (2025) observed that access deficiencies are



most acute in geographically isolated municipalities where infrastructure investment has historically been low.

The indicator on the extent to which limited internet and digital access constrain tourism workers' capacity to improve their services obtained the highest weighted mean of 3.91, interpreted "high," positioning digital inaccessibility as the most critically perceived structural barrier among all access and support system indicators in this study. The high rating denotes that digital exclusion operates not merely as a technical inconvenience but as a systemic constraint on workforce performance and service competitiveness — reflecting the growing reality that tourism operations are increasingly mediated through digital platforms, online booking systems, and real-time communication technologies. In Lagayan, whose tourism economy is anchored on natural attractions such as waterfalls, eco-trails, and cultural heritage sites, the absence of stable broadband connectivity directly impairs workers' capacity to list accommodations on online travel platforms, respond to visitor inquiries, coordinate logistics with tour operators, and promote local products through digital marketplaces. This is particularly consequential for micro-enterprises and informal workers — such as homestay operators and community-based guides — who rely disproportionately on low-cost digital channels to reach potential visitors and sustain their livelihoods, yet are structurally excluded from these channels due to inadequate infrastructure. Additionally, the inability to access digital tools limits these workers' exposure to online training resources, industry updates, and market intelligence, compounding the workforce development gaps identified in other indicators. The result, therefore, implies that without deliberate and sustained investment in digital infrastructure — including the expansion of broadband coverage to remote barangays, the provision of digital literacy training tailored to tourism workers, and subsidized access to online booking and marketing platforms — Lagayan's tourism workforce will remain structurally disadvantaged relative to better-connected destinations, undermining the municipality's broader aspirations for sustainable tourism growth.

The finding is reinforced by the works of Minor et al. (2024) and Penco et al. (2022), who established that digitalization has become a prerequisite for tourism competitiveness, yet persistent digital divides in rural areas continue to undermine workforce readiness and market participation. Dacanay and Macabenta (2021), CHED (2020), and Minor et al. (2024) specifically documented that limited digital infrastructure prevents local tourism operators from engaging effectively in online marketing, digital booking, and social media promotion, diminishing their visibility and market reach relative to better-connected destinations. Hall (2021) and Rogerson and Baum (2023) further argued that digital exclusion compounds existing rural tourism disadvantages by restricting access to market intelligence, training resources, and industry networks essential for service improvement.

In addition, the indicator "poor transportation and road access reduce tourism job prospects" obtained a weighted mean of 3.88, interpreted as "high". This indicates that respondents perceive transportation and accessibility as significant structural factors affecting employment opportunities in the tourism sector. The result denotes that physical inaccessibility is not merely an inconvenience for visitors but a direct constraint on the livelihoods of local tourism workers — limiting their ability to reach worksites, serve tourists effectively, and participate in tourism activity across the municipality. Limited or inefficient transport systems may restrict tourist mobility and reduce access to tourism destinations, thereby affecting business operations and job availability. In the context of Lagayan, where tourism sites are dispersed across mountainous terrain and connected by rural barangay roads, infrastructure constraints may



not only limit tourist arrivals but also reduce employment potential for residents in more remote areas who cannot easily access tourism activity centers. This implies that road improvement, reliable transport services, and inter-barangay connectivity are not merely infrastructure concerns but direct workforce development priorities.

This interpretation emphasizes that poor road networks, inadequate accessibility, and weak transport infrastructure remain major barriers to tourism development in rural destinations such as Lagayan and the wider Cordillera region (Busalla, 2025; Mirabueno, 2014; Ratilla et al., 2023; NEDA-CAR, 2022; Mangali, 2018). Studies specifically focused on Abra and the Cordillera Administrative Region consistently identify road condition and inter-barangay connectivity as primary constraints on visitor access and local economic participation in tourism, noting that the dispersal of tourism sites across geographically challenging terrain amplifies the impact of transport deficiencies on both tourist experience and worker mobility (NEDA-CAR, 2022; Busalla, 2025; Ratilla et al., 2023).

The indicators on financial support adequacy and program inclusion collectively reveal a moderate but consequential pattern of institutional inaccessibility among tourism workers in Lagayan. The indicator on the extent to which access to financial support for tourism workers and micro-business owners is inadequate obtained a weighted mean of 3.27, interpreted as “moderate”, indicating that financial inaccessibility is recognized as a real but not yet critically severe constraint among respondents. The indicator on the extent to which tourism workers are excluded from local government programs supporting workforce development obtained the lowest weighted mean of 2.76, likewise interpreted as “moderate”, suggesting that while outright program exclusion is not widely perceived as the most pressing concern, gaps in program reach and awareness remain evident. These scores indicate that respondents do not perceive outright exclusion or financial deprivation as immediately critical — yet they signal a shared underlying problem: existing support mechanisms, whether financial or institutional, have not consistently reached frontline tourism workers who need them most. This pattern may be attributed to structural gaps in program reach, awareness, and targeting. A small-scale souvenir vendor or a community-based tour operator in a remote barangay may be simultaneously unaware of available funding programs such as DOLE livelihood grants, DTI Pondo sa Pagbabago at Pag-asenso (P3) loans, and LGU-administered tourism funds, lack the documentary requirements to qualify, and operate outside the visibility of national and regional workforce development programs — effectively excluded from both financial and institutional support despite their nominal availability. This suggests that the inadequacy of access is not solely a matter of program existence but of program reach, relevance, and accessibility to workers in informal, seasonal, and geographically isolated roles. The result implies that the municipality must actively bridge the gap between existing support mechanisms and the tourism workers they are intended to serve — through targeted information dissemination, simplified application processes, strengthened LGU-national agency coordination, and barangay-level facilitation of both financial and institutional support.

The present findings are further substantiated by a body of scholarship that consistently recognizes limited institutional access as one of the most critical impediments to rural tourism workforce development. Hassan and Singh (2024) and UNWTO (2023) highlight that limited access to financial services and credit remains one of the most persistent barriers for small tourism enterprises in rural areas where formal banking infrastructure is limited, while Ejaz Ali Khan et al. (2021) and Granath (2023) note that complex application requirements, lack of

collateral, and weak linkages with financial institutions further constrain micro-enterprises' capacity to invest in service improvements and sustain tourism participation. Rogerson and Baum (2023) and Hall (2021) similarly observe that institutional gaps in program design, dissemination, and targeting frequently exclude informal and peripheral tourism workers from government-supported workforce development initiatives, a problem compounded by weak coordination between national agencies and local government units and the absence of community-level feedback mechanisms. Busalla (2025) further affirmed that these governance gaps are particularly acute in geographically isolated municipalities such as Lagayan, where limited institutional presence reduces the effective reach of support programs.

Table 8 presents the respondents' assessment of the seriousness of workforce development issues that limit sustainable tourism growth in terms of job quality and opportunities.

Table 8

Seriousness in the Workforce Development that Limit Sustainable Tourism Growth in Terms of Job Quality and Opportunities

Job Quality and Opportunities	Mean	DE
1. Many tourism jobs are seasonal or temporary (not stable).	4.40	VH
2. Wages in tourism are low compared to other sectors.	3.71	H
3. There are few long-term career opportunities in the tourism sector.	4.18	H
4. Tourism workers do not receive adequate benefits or social protections.	3.56	H
5. Tourism jobs lack recognition and workplace support.	3.42	H
Area Mean	3.85	H

Legend:

Statistical Limit	Descriptive Equivalent (DE)
4.21–5.00	Very High (VH)
3.41–4.20	High (H)
2.61–3.40	Moderate (M)
1.81–2.60	Low (L)
1.00–1.80	Very Low (VL)

The table shows an overall mean of 3.85, interpreted as “high”, indicating that challenges related to job quality and opportunities are perceived to a high extent as serious concerns affecting workforce sustainability within the tourism sector. This result denotes that respondents broadly recognize that the quality, stability, and long-term prospects of tourism employment in Lagayan remain insufficient — reflecting an awareness that job creation alone does not guarantee meaningful or sustainable livelihoods for tourism workers.

This suggests that while tourism continues to generate employment in Lagayan, serious concerns persist regarding the stability, quality, and long-term prospects of that work. In the municipality, tourism employment is largely concentrated during peak visitor seasons — such as festival periods and the rainy season when natural attractions like Ar-Arbis Falls draw the most visitors — after which many workers, including community-based guides, souvenir vendors, and



informal food stall operators, experience sharp declines in income or cease working altogether. These workers typically operate without employment contracts, social security coverage, or access to government-mandated benefits, leaving them financially vulnerable during off-peak periods and without recourse in cases of work-related injury or displacement. Furthermore, the absence of structured career pathways means that even experienced tourism workers in Lagayan have limited opportunities to advance into supervisory, managerial, or specialized roles, effectively capping their long-term earning potential and professional growth. The result reflects the respondents' recognition that these employment conditions present meaningful and concrete challenges to workforce sustainability in Lagayan's tourism sector.

The result emphasizes that tourism employment is often marked by seasonality, informality, low wages, weak social protection, and limited career progression (ILO, 2025; Baum et al., 2020; Çıvık, 2023; Fasone & Pedrini, 2022; Bayraktaroglu & Çıvık, 2025). The literature further notes that these issues are especially pronounced in rural and remote areas, where tourism work is often unstable and lacks formal protections and long-term development pathways (ILO & UNWTO, 2024; Maguigad & Valderrama, 2019; TESDA, 2023).

Among the indicators, the extent to which many tourism jobs are seasonal or temporary had the highest weighted mean of 4.40, indicating "very high", indicating that job instability is the most critically perceived employment concern among respondents in Lagayan. The highest score among all indicators denotes that respondents overwhelmingly regard seasonal and temporary employment as the most severe dimension of the job quality problem — signaling that the precarious nature of tourism work is not a peripheral concern but a central challenge to workforce sustainability in Lagayan. The seasonal nature of tourism activities often leads to irregular employment patterns, limited job security, and fluctuating income among workers. As a result, reliance on peak tourism periods may create inconsistent work opportunities, affecting workforce retention and financial stability. In Lagayan, where tourism activity is concentrated around specific sites and visitor seasons, workers such as tour guides, resort staff, and food vendors may experience extended periods of reduced or no income outside peak periods — making it difficult to sustain livelihoods or commit to tourism as a primary occupation. This implies that addressing seasonal employment instability — through off-season livelihood programs, diversified tourism products, and social protection mechanisms for informal tourism workers — is a foundational priority for sustainable workforce development in Lagayan.

This result consistently identifies seasonal and temporary employment as one of the most persistent structural features of tourism labor markets worldwide, particularly in rural and nature-based destinations where demand is heavily influenced by climate, accessibility, and visitor seasons (ILO, 2025; Baum et al., 2020; Çıvık, 2023). Supporting this finding, scholars further underscore that employment instability in tourism substantially undermines workforce retention, career commitment, and the long-term cultivation of a skilled local tourism workforce — a concern that is especially pronounced in communities where alternative livelihood options remain scarce (ILO & UNWTO, 2024; Fasone & Pedrini, 2022).

The indicator "there are few long-term career opportunities in the tourism sector" obtained a weighted mean of 4.18, interpreted as "high". This indicates that respondents perceive limited opportunities for career growth and long-term advancement within the tourism sector. This high rating suggests that while tourism creates jobs, many of these positions may not offer clear pathways for promotion, professional development, or long-term employment security. In Lagayan, this may be reflected in the limited number of formal tourism establishments, the

concentration of tourism activities in specific sites, and the absence of structured career ladders for workers such as guides, site staff, transport operators, and other tourism service providers. As a result, some workers may view tourism as a temporary or supplementary source of income rather than as a stable, long-term career. This implies that tourism workforce development in Lagayan must not only create more jobs but also expand opportunities for career progression, skills upgrading, and professional recognition so that tourism can be seen as a viable long-term source of employment.

This result identifies that limited career progression is a persistent weakness of tourism employment, particularly in rural and developing destinations where the industry remains fragmented and dominated by seasonal or informal work (Baum et al., 2020; ILO & UNWTO, 2024; Fasone & Pedrini, 2022). Studies further emphasize that the absence of clear advancement pathways discourages long-term commitment to tourism work and weakens workforce retention, especially among younger and more skilled workers who may seek better opportunities elsewhere (Çıvak, 2023; Bayraktaroglu & Çıvak, 2025).

Moreover, the indicator “wages in tourism are low compared to other sectors” obtained a weighted mean of 3.71, interpreted as “high”. This indicates that respondents perceive compensation in tourism as less competitive than in other available employment options. The result indicates that low wages are recognized as a significant deterrent to sustained workforce participation in tourism — reflecting a structural condition in which the economic returns of tourism work may not be sufficient to attract or retain workers with access to better-paying alternatives. Such wage disparities may prompt workers to seek employment in other sectors offering better financial incentives, thereby weakening the tourism sector's ability to build a stable, committed workforce. In Lagayan, this concern is particularly relevant for skilled workers — such as trained guides, hospitality staff, and transport operators — who may find comparable or superior compensation in urban centers or other industries, leading to talent loss and workforce gaps in the local tourism sector. This implies that improving wage competitiveness in tourism — through minimum wage enforcement, performance-based incentive schemes, and livelihood supplementation programs — is essential to retaining capable workers and sustaining tourism service quality.

This finding identifies low wages as a persistent and widespread feature of tourism employment, particularly in developing economies and rural destinations where labor markets are informal, and workers' bargaining power is (ILO, 2025; ILO & UNWTO, 2024; Baum et al., 2020). Studies further note that wage gaps between tourism and other sectors contribute to high turnover, reduced workforce commitment, and difficulty in attracting skilled workers — particularly in rural areas where economic alternatives are limited (Çıvak, 2023; Bayraktaroglu & Çıvak, 2025).

The indicator “tourism workers do not receive adequate benefits or social protections” obtained a weighted mean of 3.56, interpreted as “high”, suggesting that gaps exist in worker support systems. The result denotes that while tourism employment provides income opportunities, many workers — particularly those in informal or seasonal roles — remain without the safety nets that formal employment typically provides, exposing them to significant economic vulnerability. This indicates that tourism workers may have limited access to essential benefits such as health insurance, job security, and retirement programs, particularly those engaged in informal or seasonal employment. In Lagayan, this vulnerability is likely most acute among workers who are not formally registered with government social protection agencies such



as SSS, PhilHealth, or Pag-IBIG — a common condition among informal vendors, seasonal guides, and part-time tourism operators. This implies that expanding social protection coverage for informal tourism workers through simplified enrollment processes and local government-facilitated registration drives is a critical step toward improving the welfare and long-term sustainability of Lagayan’s tourism workforce.

These finding highlights that the absence of adequate social protection for tourism workers — particularly those in informal, seasonal, or part-time employment — is a major concern in developing-country tourism labor markets (ILO, 2025; ILO & UNWTO, 2024; Maguigad & Valderrama, 2019). Studies further note that lack of access to health insurance, retirement benefits, and job security mechanisms significantly reduces the attractiveness and sustainability of tourism as a long-term livelihood option, particularly in rural communities where informal work arrangements are most prevalent (TESDA, 2023; Baum et al., 2020).

The assessment of workplace conditions further revealed that tourism jobs in Lagayan are perceived to lack recognition and workplace support, with respondents reporting a weighted mean of 3.42, indicating “high”. While this represents the lowest score among the indicators assessed, the rating nonetheless signals a meaningful gap — one that, if left unaddressed, can quietly erode workforce morale and long-term commitment. Workers who feel unacknowledged or unsupported in their roles are less likely to remain in the sector, regardless of other improvements in wages or job stability. In the context of Lagayan, where tourism enterprises are predominantly small- and micro-scale, formal recognition systems and structured workplace support mechanisms are rarely in place. Guides, vendors, and seasonal workers often operate without performance feedback, professional mentoring, or institutional acknowledgment of their contributions to the local tourism experience. Addressing this gap need not require large-scale investment; targeted interventions — such as municipal tourism awards, peer recognition programs, and mentoring linkages facilitated through the local government unit — could meaningfully strengthen worker motivation, improve service quality, and foster a sense of professional identity among Lagayan’s tourism workforce.

Moreover, these findings consistently identify the absence of recognition and workplace support as a key driver of low job satisfaction and high turnover in tourism — particularly within small-scale and informal enterprises where human resource management remains underdeveloped (Fasone & Pedrini, 2022; Bayraktaroglu & Çıvık, 2025; Baum, 2015). Beyond retention, research underscores that supportive and affirming work environments are directly linked to higher service quality and stronger long-term workforce commitment — outcomes that carry particular weight for rural destinations like Lagayan, where the pool of experienced tourism workers is limited and difficult to replenish (WTTC, 2022; ILO & UNWTO, 2024).

Table 9 presents the respondents’ assessment of the seriousness of workforce development issues that limit sustainable tourism growth in terms of policy and community engagement. The table shows an overall mean of 3.06, interpreted as “moderate,” indicating that policy and community engagement are perceived as moderate challenges affecting workforce development and sustainable tourism growth. This result suggests that respondents recognize gaps in governance, coordination, and community participation, although these are not viewed as the most immediate barriers compared with skills-related, structural, and job-related concerns. Rather than serving as direct day-to-day constraints, these concerns appear to operate as underlying conditions shaping the long-term direction of tourism development.

Table 9

Seriousness in the Workforce Development that Limit Sustainable Tourism Growth in Terms of Policy and Community Engagement

Policy and Community Engagement	Mean	DE
1. Local tourism planning lacks coordination between barangays and LGU's.	2.94	M
2. There are no clear career pathways for tourism graduates or trainees.	3.14	M
3. The community lacks awareness of workforce development needs in tourism.	3.30	M
4. Cultural and environmental protection priorities are weak in tourism workforce programs.	2.90	M
5. Frequent leadership changes disrupt continuity of workforce development policies.	3.04	M
Area Mean	3.06	M

Legend:

Statistical Limit	Descriptive Equivalent (DE)
4.21–5.00	Very High (VH)
3.41–4.20	High (H)
2.61–3.40	Moderate (M)
1.81–2.60	Low (L)
1.00–1.80	Very Low (VL)

In Lagayan, this may be attributed to the municipality's emerging tourism sector, where formal systems for consultation, coordination, and policy support are still developing. This implies that although policy and community engagement concerns are not considered the most urgent problems, they remain important in building a sustainable tourism workforce.

This finding underscores that weak coordination, fragmented policy implementation, limited stakeholder participation, and governance gaps continue to affect inclusive tourism development, especially in rural areas (Gabito & De Vera, 2022; Delos Santos et al., 2025; Tong et al., 2024; UNWTO, 2023). It also reinforces the idea that when local communities lack meaningful participation in planning and decision-making processes, tourism initiatives can become imposed from above and less attuned to the needs of the local population (Leguizamón, 2016).

Among the indicators under policy and community engagement, the highest weighted mean of 3.30, interpreted as "moderate," was obtained by the item stating that the community lacks awareness of workforce development needs in tourism. This result indicates that limited community awareness is the most noticeable concern within this area. It reflects a gap in public understanding of the value of skills development, training participation, and workforce preparation in tourism. This may be attributed to the fact that tourism in Lagayan is still developing, so many residents may not yet fully recognize tourism as a long-term source of livelihood. For instance, some residents may be aware of tourism activities in the municipality but may not clearly understand why training in guiding, hospitality, customer service, or site management is needed. This suggests that weak awareness can reduce local participation in



tourism programs and limit the effectiveness of workforce development efforts. It therefore implies that community information drives, barangay orientations, and awareness activities are needed to strengthen public understanding and support.

This present study shows that low community awareness of tourism's workforce development potential is a recurring challenge in emerging rural tourism destinations, where the sector is not yet fully integrated into local livelihood planning and educational priorities (Gabito & De Vera, 2022; Leguizamón, 2016; UNWTO, 2023) also supports previous studies emphasizing that awareness and community involvement are necessary conditions for successful workforce development, since even well-designed programs may fail to attract participation or reach their intended beneficiaries without them (Tong et al., 2024; Delos Santos et al., 2025).

In relation to career development support within workforce policy, the absence of clear career pathways for tourism graduates and trainees obtained a weighted mean of 3.14, also interpreted as "moderate". This result reflects concern regarding the weak connection between tourism education and actual career opportunities within the local tourism sector. Although the rating is moderate, it still shows that respondents recognize career uncertainty as a barrier to retention and long-term professional growth. This may be attributed to the limited availability of structured tourism positions, advancement opportunities, and mentoring systems in the municipality. For example, a tourism graduate may return to Lagayan after completing a degree but find no clear entry point into local tourism work beyond temporary or informal opportunities. This denotes that educational preparation alone may not be enough to retain skilled workers if local career options remain unclear. The result implies that local career mapping, mentoring support, and apprenticeship or job-matching initiatives may help strengthen workforce commitment and retention.

With respect to policy continuity, respondents also expressed "moderate" concern regarding the tendency of frequent leadership changes to disrupt workforce development policies, with a weighted mean of 3.04. This result indicates that continuity in tourism workforce programs is a recognized governance concern in the municipality. While it is not considered the most pressing issue, it still points to a vulnerability in which changes in local leadership can delay, redirect, or discontinue tourism workforce initiatives. This may be attributed to the dependence of local tourism programs on the priorities of elected officials rather than on permanent institutional mechanisms. For example, a tourism training initiative introduced under one administration may lose support once a new leadership takes office. This suggests that tourism workforce development may become inconsistent when programs are not formally institutionalized. The result implies that local tourism policies should be anchored in ordinances, long-term plans, and inter-agency agreements so that programs can continue beyond leadership transitions.

The present study supports published studies showing that policy discontinuity caused by leadership changes is a recurring issue in local tourism development, particularly in municipalities where tourism programs are closely tied to individual officials rather than institutional systems (Gabito & De Vera, 2022; Delos Santos et al., 2025; Tong et al., 2024). It also supports the view that sustainable tourism workforce development requires stable, long-term policy commitment backed by formal governance structures (UNWTO, 2023; Hall, 2021).

Regarding local planning coordination, the item stating that local tourism planning lacks coordination between barangays and LGUs obtained a weighted mean of 2.94, interpreted as "moderate." This result denotes that coordination among local stakeholders remains a concern.



Although some collaboration may already exist, it may not yet be sufficient to support cohesive, municipality-wide tourism planning and workforce development. This may be attributed to uneven tourism involvement across barangays and the absence of a stronger coordinating mechanism at the municipal level. For example, some barangays may actively participate in tourism activities because they are closer to tourism sites, while others may have limited involvement in planning and implementation. This suggests a fragmented governance environment in which tourism efforts remain localized rather than fully integrated. The result therefore implies that a formal inter-barangay coordination mechanism, supported by the municipal tourism office, may help align tourism planning and workforce development efforts across the municipality.

The present study shows that weak coordination between local government units and community stakeholders is a recurring challenge in rural tourism governance, often resulting in fragmented planning, duplicated efforts, and uneven development support (Gabito & De Vera, 2022; Tong et al., 2024; Hall, 2021). It also supports that integrated coordination is necessary to ensure that tourism workforce development programs respond to local needs and reach all relevant communities (UNWTO, 2023; Delos Santos et al., 2025).

Lastly, regarding cultural and environmental priorities in workforce programs, the lowest weighted mean of 2.90, still interpreted as “moderate,” was recorded for the weakness of these priorities. This result indicates that integrating sustainability principles into workforce development remains a concern. Although it received the lowest score among the indicators, the moderate rating still shows that respondents recognize the weak inclusion of cultural and environmental priorities in tourism training and workforce preparation. This may be attributed to the tendency of workforce programs to focus more on employment and service delivery while giving less attention to sustainability, heritage protection, and environmental stewardship. For example, workers may be trained in customer service or tour assistance but may receive limited preparation in cultural sensitivity, heritage preservation, waste management, or environmental care. This suggests that tourism growth may place local cultural and natural resources at risk when sustainability-oriented competencies are not included in workforce programs. The result implies that cultural preservation and environmental stewardship should be integrated more clearly into tourism training and workforce development initiatives in Lagayan.

The present study shows that integrating cultural and environmental priorities into tourism workforce development is important but often overlooked, especially in rural destinations where natural and cultural assets form the core of tourism appeal (Abari & Malibiran, 2024; Sabandal & Gumban, 2025; UNWTO, 2023). It also supports workers who lack training in sustainability and cultural sensitivity, may unintentionally contribute to the weakening of destination quality and community identity (Tong et al., 2024; Leguizamón, 2016).

Problem 4. Is there a significant relationship between the demographic profile of the respondents and the economic contributions of tourism to the municipality of Lagayan?

Table 10 presents the results of the chi-square test examining the relationship between the respondents’ demographic profile and the economic contributions of tourism in the municipality.

Based on the table, age, employment status, and number of years in service have significant relationships with the economic contributions of tourism, while sex and educational attainment do not show a statistically significant relationship based on the reported p-values. This pattern suggests that perceptions of tourism’s economic contribution are not uniform across

all groups, and that some personal and work-related characteristics are more influential than others in shaping how tourism is assessed. This interpretation is consistent with tourism studies showing that residents' perceptions of tourism impacts are often heterogeneous and may vary according to sociodemographic and occupational characteristics (Ap, 1992; Alrwajfah et al., 2019; Timothy & Said, 2023).

Table 10

Chi-square Results of Respondents' Profile and the Economic Contributions of Tourism in the Municipality of Lagayan

Profile	df	X ²	p-value
Age			
15-24			
25-34			
35-44			
45-54			
55 and above	8	16.51*	0.04
Sex			
Male			
Female	2	2.72	0.26
Educational Attainment			
Doctorate Degree			
Master's Degree			
College Graduate			
College Level			
High School Graduate			
High School Level			
Elementary Graduate			
No Formal Schooling	10	18.21	0.05
Employment Status			
Full-time permanent			
Seasonal Worker			
Self-employed			
Temporary/Contractual	6	301.52*	0.00
Number of Years in Service			
Less than 6 months			
6 months to 1 year			
2-3 years			
4-5 years			
6 years and above	8	368.46*	0.00

Age shows a significant relationship with the economic contributions of tourism ($X^2 = 16.51$, $df = 8$, $p = 0.04$), indicating that respondents from different age groups vary in their

assessment of tourism's economic contributions. The finding suggests that respondents in different age brackets may not view tourism's benefits in exactly the same way. This may be attributed to differences in work involvement, economic responsibilities, and lived experience across age groups. Previous studies likewise note that age is among the variables that can contribute to variation in residents' perception of tourism impacts (Alrwajfah et al., 2019; Timothy & Said, 2023).

On the other hand, sex shows no significant relationship with the economic contributions of tourism ($X^2 = 2.72$, $df = 2$, $p = 0.26$), indicating that male and female respondents do not significantly differ in their assessment of tourism's economic contributions. The finding implies that despite differences in representation within the sample, both male and female respondents generally share comparable views regarding tourism's economic role in Lagayan. This is also understandable because while labor participation may differ by sex, recognition of tourism's community-level economic benefits may still be broadly shared across groups. Studies on tourism impacts have likewise found that some sociodemographic variables may matter in some contexts but not in others, reinforcing the idea that not all profile variables consistently predict perception outcomes (Alrwajfah et al., 2019; Timothy & Said, 2023).

Similarly, educational attainment does not show a significant relationship with the economic contributions of tourism ($X^2 = 18.21$, $df = 10$, $p = 0.05$), suggesting that respondents' assessment does not significantly vary according to educational background. The finding suggests that tourism's economic effects may be sufficiently visible in the community that they are recognized across different educational backgrounds. Tourism literature also notes that sociodemographic variables such as education may shape residents' perceptions in some settings, but their effect is not always strong or consistent across all studies (Alrwajfah et al., 2019).

In contrast, employment status shows a highly significant relationship with the economic contributions of tourism ($X^2 = 301.52$, $df = 6$, $p = 0.00$), indicating that respondents' employment status significantly influences how they assess tourism's economic contributions. This result may be attributed to the fact that individuals in different forms of employment experience tourism differently. Seasonal workers, temporary workers, self-employed individuals, and permanent workers are likely to encounter varying levels of income security, business opportunities, and direct dependence on tourism activity. Since tourism is strongly linked to job creation, enterprise development, and MSME participation, it is reasonable that employment status would shape respondents' views of its economic contributions (ILO, 2024; ILO, 2025).

Likewise, number of years in service shows a highly significant relationship with the economic contributions of tourism ($X^2 = 368.46$, $df = 8$, $p = 0.00$), suggesting that length of service significantly affects respondents' assessment of tourism's economic contributions. Those who have been involved longer may have had more opportunities to observe changes in livelihood, demand, business activity, and local development brought about by tourism. In this sense, greater experience may lead to a deeper appreciation or more grounded assessment of tourism's economic role. Studies on residents' tourism perceptions likewise support the view that heterogeneity in perceptions may be shaped by differences in exposure, occupation, and community experience (Ap, 1992; Timothy & Said, 2023).

Overall, the chi-square results indicate that age, employment status, and number of years in service significantly influence the respondents' assessment of the economic contributions of tourism, while sex and educational attainment do not. This means that the economic value of tourism is not perceived in exactly the same way across all respondent groups, and that tourism



planning in Lagayan may benefit from considering differences in age, work arrangements, and service experience within the local population. Tourism research supports this kind of interpretation by emphasizing that residents' responses to tourism development are often shaped by their varying social, occupational, and experiential positions within the community (Ap, 1992; Alrwajfah et al., 2019).

Problem 5. What tourism operational standards can be formulated from the findings of the study to improve tourism management in Lagayan, Abra?

Based on the findings of the study, tourism operational standards may be formulated to improve tourism management in Lagayan, Abra. These standards are anchored on the major results of the assessment, particularly the strong economic contribution of tourism in terms of revenue generation, infrastructure and development, community livelihood and empowerment, and economic inclusivity, as well as the identified workforce development challenges in terms of skills and education gaps, access and support systems, job quality and opportunities, and policy and community engagement. The formulation of these standards is necessary to provide the municipality with a clear and organized framework that will guide tourism operations, strengthen workforce capacity, improve service delivery, and promote inclusive and sustainable tourism development.

For revenue generation, the manual provides standards on revenue management and fee collection to ensure that tourism income is properly collected, recorded, allocated, and monitored. This may help improve financial accountability, support site improvement, and ensure that tourism revenues are used efficiently for tourism development and community benefit.

For infrastructure and development, the manual provides standards on site maintenance, safety, environmental conservation, and accessibility. These standards may help sustain the quality of tourism sites, protect natural resources, improve visitor experience, and ensure that tourism facilities remain safe, functional, and responsive to local needs.

For community livelihood and empowerment, the manual provides standards that support local livelihoods, strengthen community participation, preserve cultural heritage, and encourage local pride. This may help expand tourism-related opportunities for residents, support small enterprises, and promote stronger community involvement in tourism development.

For economic inclusivity, the manual provides standards on equitable benefit distribution, inclusion of low-income households, support for women and youth, and cross-barangay participation. These standards may help address gaps in the distribution of tourism benefits and ensure that tourism opportunities are shared more fairly across different sectors of the community.

For workforce development in terms of skills and education gaps, the manual provides standards on skills training, capacity-building programs, digital literacy, and career pathway development. This may help improve worker competence, address skills mismatch, attract more young people to tourism careers, and strengthen workforce readiness for sustainable tourism growth.

For access and support systems, the manual provides standards on social protection, financial assistance, worker support, transportation access, and digital connectivity. These standards may help reduce the structural barriers faced by tourism workers, especially those in remote or informal sectors, and improve their ability to participate more effectively in tourism activities.



For job quality and opportunities, the manual provides standards on employment stabilization, fair compensation, worker recognition, seasonal work mitigation, and long-term career development. This may help improve the quality of tourism employment, reduce worker vulnerability, and make tourism work more stable and sustainable as a source of livelihood.

Finally, for policy and community engagement, the manual provides standards on governance, stakeholder coordination, barangay-LGU collaboration, and monitoring and evaluation. These standards may help strengthen institutional coordination, improve policy implementation, and ensure that tourism development is more participatory, organized, and responsive to community needs.

Conclusions

Based on the findings, the following conclusions were derived.

The tourism sector in Lagayan is largely composed of economically active adults who are mostly male, have basic to intermediate educational attainment, are engaged in seasonal, temporary, and self-employed work, and have several years of service. Tourism participation in the municipality is mainly community-based and livelihood-oriented, with many workers already having direct exposure to tourism-related activities.

Tourism in Lagayan, Abra, contributes to the municipality's economic development, as it already serves as an important source of local income, infrastructure improvement, and community livelihood. Revenue generation, infrastructure and development, and community livelihood and empowerment were evident, while economic inclusivity was less apparent than the other areas. Tourism already benefits the municipality in many ways, but these benefits are not yet fully shared across all sectors of the community.

Despite tourism's strong economic contribution, the municipality continues to face challenges in workforce development. There are serious concerns regarding skills and education gaps, access and support systems, and job quality and opportunities, while policy and community engagement also need attention. These conditions continue to affect the preparedness, support, and stability of the local tourism workforce.

The economic contributions of tourism are significantly associated with age, employment status, and years of service, whereas sex and educational attainment are not. The respondents' level of work exposure and participation in tourism-related activities influence their perceptions of tourism's economic contribution to the municipality.

The Tourism Operations Manual addresses the workforce development, economic inclusivity, and community engagement gaps identified in these findings. It provides the operational standards and structured guidance needed to strengthen skills and education, access and support systems, job quality and opportunities, and policy and community engagement — making it the critical instrument for transforming Lagayan's tourism sector into a well-managed, equitable, and sustainable industry that benefits every member of the community.

Recommendations

Based on the findings and conclusions of the study, the following recommendations are offered:

1. The Local Government Unit of Lagayan, Abra should strengthen tourism governance and revenue management by institutionalizing clear policies and mechanisms on fee collection, revenue allocation, and financial reporting. This is necessary to promote transparency,



- accountability, and the proper reinvestment of tourism income into site development, public services, and community-based tourism programs.
2. The municipality should prioritize the improvement of tourism-related infrastructure and accessibility through the provision of better roads, directional signage, visitor facilities, and other basic support services in key tourism areas. The development or reopening of tourism sites should likewise be undertaken systematically, ensuring that safety, accessibility, and sustainability standards are fully considered.
 3. A sustained tourism workforce development program should be implemented in partnership with relevant such as the Department of Tourism (DOT), Technical Education and Skills Development Authority (TESDA), Department of Labor and Employment (DOLE), Department of Information and Communications Technology (DICT), Department of Trade and Industry (DTI), and social protection institutions such as SSS, PhilHealth, and Pag-IBIG to address the identified gaps in skills, training, and career development. Such initiatives may include capacity-building activities in tour guiding, hospitality services, customer relations, digital promotion, and environmental management to enhance workforce competence and service quality.
 4. Support mechanisms for tourism workers should be further expanded by improving access to social protection, financial assistance, digital connectivity, and employment-related support, particularly for seasonal, temporary, and informal workers. This may contribute to greater workforce stability, improved job quality, and more inclusive participation in tourism-related economic activities.
 5. Community participation and inclusive tourism development should be further strengthened by actively involving barangays, tourism workers, local enterprises, and community organizations in tourism planning, decision-making, and program implementation. This is essential to ensure that the benefits of tourism are distributed more equitably and that tourism development remains responsive to the needs of the local community.

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