

# Community-Based Ecotourism and Youth Employment along the Lao–Chinese Railway Corridor

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## Abstract.

The opening of the Lao–China railway in December 2021 has reshaped the accessibility of northern Laos, bringing large numbers of domestic and regional visitors to destinations that were previously reached only by road. This study examines how the railway has changed community-based ecotourism and youth employment in four villages in Luang Prabang and Vang Vieng, two of the destinations most directly affected by the new line. A mixed-methods design combined a household survey of 312 residents aged 18 to 35, key informant interviews with 26 village leaders, enterprise owners and tourism officials, and analysis of visitor records held by village tourism committees and district offices. The findings show a substantial rise in visitor numbers, with arrivals at the four villages increasing by between 62 and 148 per cent over the three years following the railway's opening, and a corresponding increase in youth participation in tourism-related work. However, local value capture remains limited. Most additional revenue accrues to tour operators, transport providers and accommodation businesses based in provincial towns, while village enterprises capture a small share of visitor spending and youth employment is concentrated in low-wage, seasonal and informal roles. Villages with functioning tourism committees, product diversification and access to enterprise support recorded higher local income shares. The paper concludes that infrastructure-led tourism growth does not automatically translate into community benefit and argues that targeted enterprise support, skills development and stronger contractual arrangements with operators are required if the railway is to deliver inclusive rural development.

**Keywords:** community-based ecotourism, youth employment, Lao–China railway, value capture, rural livelihoods

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## 1. Introduction

The Lao–China railway, which connects Kunming in Yunnan Province with Vientiane over a distance of more than 1,000 kilometres, has been described as the most significant transport investment in the modern history of Laos. Since its opening in December 2021 the line has reduced travel time between Vientiane and Luang Prabang from a full day by road to under two hours, and has placed Vang Vieng within an hour of the capital. Cross-border passenger services introduced in 2023 have further connected northern Laos with the large tourism market of southwestern China. Official figures indicate that international arrivals to Laos recovered to and then exceeded pre-pandemic levels within two years of the railway's opening, with Luang Prabang Province recording the fastest growth in the country.

The villages surrounding these destinations have long been promoted as sites of community-based ecotourism (CBET), an approach that seeks to combine nature and culture-based visitor experiences with local ownership and the distribution of benefits to residents. Northern Laos was one of the earliest settings in Southeast Asia for CBET experimentation,

with donor-supported projects in Luang Namtha and Luang Prabang dating from the late 1990s. The rationale for CBET rests on the expectation that tourism revenue retained within villages will support livelihoods, reduce out-migration and create incentives for environmental conservation. Youth are frequently identified as the group most likely to benefit, because tourism offers employment that does not require land or capital and because young people are more likely than their elders to possess the language and digital skills that visitor services require.

Whether infrastructure-driven growth in visitor numbers delivers these benefits has received little attention in Laos since the railway opened. This paper addresses the question through a mixed-methods study of four villages near Luang Prabang and Vang Vieng. It asks how visitor flows have changed, how youth participation in tourism employment has changed, and what share of additional visitor spending is captured locally, drawing on a household survey of young residents, key informant interviews and visitor records. It contributes early evidence on how established community tourism institutions respond when a single transport investment transforms accessibility.

## **2. Literature Review**

### **2.1 Community-based ecotourism and benefit distribution**

CBET emerged in the 1990s in response to criticism that mainstream tourism generated few benefits for host communities. Scheyvens (1999) proposed an empowerment framework distinguishing economic, psychological, social and political dimensions of benefit, arguing that economic gains alone are insufficient without community control. Subsequent research has found benefit distribution to be uneven, with participation concentrated among households that already possess assets such as suitable housing, capital or education (Kiss, 2004; Tolkach & King, 2015).

In Laos, CBET has been supported by donor projects and the national ecotourism strategy. Harrison and Schipani (2007) found that private sector tourism generated larger aggregate benefits than donor-supported CBET, although CBET reached poorer households. Later studies observed that many initiatives struggled after donor withdrawal because they lacked marketing capacity and depended on a few tour operators for visitors (Lapeyre, 2010; Suntikul et al., 2016). The terms on which operators contract with villages therefore determine the share of spending that reaches residents.

### **2.2 Value chains and local value capture**

The value chain perspective analyses where tourist spending ends up. Mitchell and Ashley (2010) showed that the share of expenditure reaching poor households ranges from under 10 to over 25 per cent depending on local sourcing and the presence of enterprises able to sell directly to visitors. In rural CBET settings the main channels of local capture are guiding fees, homestays, food and handicraft sales and entry fees, while the main leakages are transport, packaged tour margins and accommodation in nearby towns.

Improved accessibility reliably increases arrivals (Khadaroo & Seetanah, 2008) but has ambiguous effects on local value capture. It can convert overnight visitors into day-trippers, shift accommodation demand to larger centres and strengthen operators who bundle transport with excursions (Prideaux, 2000). The net effect on a village depends on whether it can adapt its product and negotiate with operators. Early commentary on the Lao–China railway anticipated rapid growth in Chinese visitors alongside a risk that benefits would concentrate in Vientiane and Luang Prabang town (Rowedder, 2020).

## **2.3 Youth employment in rural tourism**

Youth underemployment is a persistent concern in Laos, where rural employment remains dominated by low-productivity agriculture. Tourism employs a higher proportion of young workers than most sectors globally (ILO, 2022), but much of that work is seasonal, informal and poorly paid, with limited progression without training (Baum, 2015). In rural settings tourism often supplements farming or migration rather than providing a primary livelihood.

Enterprise support can enable young people to move from wage work into self-employment. Small credit, training in hospitality and digital marketing, and mentoring have been found to improve the survival and earnings of youth-led tourism micro-enterprises in Southeast Asia (Dolezal & Novelli, 2022); where such support is absent, skilled young people tend to migrate. Building on these strands, the study examines the railway's effect on visitor flows, youth employment and local value capture, and the mediating role of enterprise support.

## **3. Methodology**

### **3.1 Study sites**

Four villages were selected to represent variation in distance from the railway stations, in the maturity of CBET institutions and in product type. Two villages lie within 25 kilometres of Luang Prabang station: one is a riverside village known for weaving and homestays with an established tourism committee dating from a donor project in the mid-2000s, and the other is a village adjacent to a waterfall attraction that receives high volumes of day visitors. The two Vang Vieng villages are located within 15 kilometres of the town: one offers trekking and cave visits organised through a committee formed in 2019, and the other is a farming village on the road to a popular lagoon that has become a stopping point for visitors. For confidentiality the villages are referred to as LP1, LP2, VV1 and VV2.

### **3.2 Data collection**

The study employed a convergent mixed-methods design (Creswell & Plano Clark, 2018) in which quantitative and qualitative data were collected in parallel and integrated during interpretation. The quantitative component comprised a household survey administered to residents aged 18 to 35 between November 2025 and January 2026. Households were sampled systematically from village lists, and one eligible young person per household was interviewed, yielding 312 completed questionnaires across the four villages with a response rate of 87 per cent. The questionnaire covered current and past employment, involvement in tourism activities, income from tourism, training received and perceptions of change since the railway opened. Visitor records were obtained from village tourism committees, which record entry fees and homestay nights, and from district tourism offices, for the years 2021 to 2025.

The qualitative component comprised semi-structured interviews with 26 key informants: village heads and tourism committee members, owners of homestays, restaurants and guiding services, staff of tour operators in Luang Prabang and Vang Vieng, and officials of the provincial Departments of Information, Culture and Tourism. Interviews explored changes in visitor profiles, contractual arrangements with operators, the origin of enterprises and the constraints young people face in starting businesses. Interviews were conducted in Lao, recorded and transcribed, and analysed thematically. Local value capture was estimated using a simplified value chain approach following Mitchell and Ashley (2010): visitor spending per trip was estimated from operator price lists and visitor exit surveys conducted by the district

offices, and the share retained in each village was calculated from committee records, enterprise interviews and survey-reported incomes.

## 4. Results

### 4.1 Changes in visitor flows

Visitor numbers rose substantially in all four villages following the railway's opening. Table 1 presents recorded arrivals for 2021, the year of opening, and 2025, together with the change in the share of day visitors. The increase ranged from 62 per cent at LP1, the weaving and homestay village, to 148 per cent at VV2, the roadside farming village near the lagoon. Growth was strongest at the two villages most closely associated with high-volume natural attractions and weakest at the village whose product depends on overnight stays. Across the four villages the share of day visitors rose, reflecting the ability of visitors based in Luang Prabang town or Vang Vieng to reach the villages and return the same day. Key informants at LP1 reported that homestay nights had risen far less than arrivals and that tour operators increasingly offered the village as a half-day stop rather than as an overnight experience.

*Table 1: Recorded visitor arrivals and day-visitor share by village, 2021 and 2025*

| Village                    | Arrivals<br>2021 | Arrivals<br>2025 | Change<br>(%) | Day visitors 2021<br>(%) | Day visitors 2025<br>(%) |
|----------------------------|------------------|------------------|---------------|--------------------------|--------------------------|
| LP1 (weaving and homestay) | 4,180            | 6,770            | 62            | 48                       | 71                       |
| LP2 (waterfall)            | 31,500           | 68,900           | 119           | 96                       | 98                       |
| VV1 (trekking and caves)   | 6,240            | 12,300           | 97            | 63                       | 80                       |
| VV2 (roadside farming)     | 2,950            | 7,320            | 148           | 99                       | 99                       |
| Total                      | 44,870           | 95,290           | 112           | 88                       | 93                       |

*Source: Village tourism committee and district tourism office records (2026)*

Interviewees consistently attributed the growth to the railway, both directly through the arrival of visitors from Vientiane and China and indirectly through the expansion of tour operator activity in the provincial towns. The composition of visitors also changed. Operators reported a marked rise in domestic Lao visitors and in Chinese group tours, alongside continued but proportionally smaller numbers of Western independent travellers who had previously formed the core market for CBET products. Chinese and domestic visitors were described as favouring short visits to natural attractions with photography opportunities, and as spending less on guided walks and homestays than earlier visitor segments.

### 4.2 Youth employment

The survey indicates that youth participation in tourism-related work has increased markedly. Table 2 summarises employment outcomes for the 312 respondents. The proportion reporting any tourism-related income in the previous twelve months rose from 27.2 per cent, as recalled for 2021, to 46.5 per cent in 2025. The largest categories of work were transport and portering, food and beverage service, handicraft and souvenir sales, and guiding. Formal employment with a written contract was rare, and 74.5 per cent of those working in tourism described their work as seasonal or occasional. Median monthly tourism income during the high season was 1.8 million kip, approximately 85 US dollars, and fell to a small fraction of that amount in the low season. Only 12.4 per cent of tourism-active respondents had received

any formal training in hospitality, guiding or business skills, and 19.3 per cent reported that they operated their own enterprise rather than working for someone else.

*Table 2: Tourism employment among surveyed youth aged 18–35 (N = 312)*

| Indicator                                               | LP1 (n = 74) | LP2 (n = 88) | VV1 (n = 79) | VV2 (n = 71) | All (N = 312) |
|---------------------------------------------------------|--------------|--------------|--------------|--------------|---------------|
| Any tourism income in 2021 (%)                          | 39.2         | 26.1         | 24.1         | 18.3         | 27.2          |
| Any tourism income in 2025 (%)                          | 52.7         | 48.9         | 45.6         | 38.0         | 46.5          |
| Tourism work seasonal or occasional (%)                 | 61.5         | 79.1         | 72.2         | 85.2         | 74.5          |
| Own tourism enterprise (%)                              | 30.8         | 14.0         | 19.4         | 11.1         | 19.3          |
| Received formal training (%)                            | 23.1         | 9.3          | 11.1         | 3.7          | 12.4          |
| Median high-season monthly tourism income (million kip) | 2.4          | 1.6          | 1.9          | 1.3          | 1.8           |
| Would migrate for work if opportunity arose (%)         | 35.1         | 51.1         | 44.3         | 56.3         | 46.8          |

*Source: Authors' household survey (2026)*

Differences between villages are notable. LP1, with its long-established committee and history of donor-supported training, recorded the highest rates of enterprise ownership and training and the highest median incomes, despite the smallest increase in arrivals. VV2, with the largest increase in arrivals, recorded the lowest rates of enterprise ownership and training and the highest proportion of respondents willing to migrate for work. Interviews at VV2 revealed that most young people engaged with tourism by selling drinks and snacks at the roadside or by working for lagoon and restaurant businesses owned by investors from Vang Vieng town, and that the village had no committee through which to negotiate collective arrangements. Several respondents expressed frustration that visitors passed through the village in large numbers without stopping.

### 4.3 Local value capture

Table 3 presents estimates of visitor spending per trip and the share retained within each village. The estimated local share ranged from 8 per cent at LP2 to 31 per cent at LP1, with an aggregate share across the four villages of 14 per cent. At LP2, the waterfall village, most visitor expenditure consisted of transport from Luang Prabang, entry fees collected by the district rather than the village, and meals purchased from concessions operated by outside investors; village residents captured income mainly through parking, portering and small stalls. At LP1, by contrast, homestay charges, weaving sales and guiding fees were retained locally and the committee received a share of operator payments under a longstanding agreement. VV1 occupied an intermediate position, with guiding fees retained locally but transport and equipment provided by operators. Informants at all villages except LP1 reported that they had no formal agreement with operators governing prices, visit frequency or the share of package revenue allocated to the village.

*Table 3: Estimated visitor spending and local value capture by village, 2025*

| Village                    | Mean spending per visitor trip (US\$) | Estimated local share (%) | Main local revenue channels                | Formal agreement with operators |
|----------------------------|---------------------------------------|---------------------------|--------------------------------------------|---------------------------------|
| LP1 (weaving and homestay) | 38                                    | 31                        | Homestays, weaving, guiding, committee fee | Yes                             |
| LP2 (waterfall)            | 27                                    | 8                         | Parking, stalls,                           | No                              |

|                          |    |    |                               |          |
|--------------------------|----|----|-------------------------------|----------|
|                          |    |    | portering                     |          |
| VV1 (trekking and caves) | 34 | 19 | Guiding, cave entry, meals    | Informal |
| VV2 (roadside farming)   | 21 | 11 | Roadside sales, casual labour | No       |
| Weighted total           | 29 | 14 | —                             | —        |

*Source: Authors' calculations from operator price lists, district exit surveys and village records (2026)*

## 5. Discussion

### 5.1 Growth without proportional local benefit

The results confirm that a large improvement in accessibility generates a substantial increase in arrivals (Khadaroo & Seetana, 2008), and the more cautionary observation that accessibility alters the nature of visits in ways that reduce local benefit (Prideaux, 2000). The rise in day visitors, the shift towards natural attractions and the growing role of town-based operators mean that the additional spending is captured largely outside the villages. The aggregate local share of 14 per cent lies at the lower end of the range reported by Mitchell and Ashley (2010), and the 8 per cent figure at the highest-volume site shows that volume is not a reliable guide to community benefit.

The contrast between LP1 and VV2 is instructive. LP1 had the smallest increase in arrivals but the highest retained share and the best youth outcomes; VV2 had the largest increase and one of the lowest shares. The difference reflects institutions and product rather than location: LP1 has a functioning committee with a formal operator agreement, a diversified product encouraging overnight stays and a legacy of donor training. This supports Scheyvens (1999) on community control and Lapeyre (2010) on the decisive terms of operator engagement, and suggests that earlier CBET projects, often judged unsustainable, created capacities that become valuable when demand rises.

### 5.2 Youth employment quality and enterprise support

The near doubling of youth participation is positive, but the predominance of seasonal work, low training rates and modest incomes match the pattern described by Baum (2015) and ILO (2022). The high willingness to migrate at LP2 and VV2 indicates that tourism income has not anchored young people there, whereas the much lower figure at LP1, with its higher enterprise ownership, suggests that training, enterprise opportunity and collective institutions change this calculus, corroborating Dolezal and Novelli (2022) in the Lao context.

Three interventions follow. The first is targeted enterprise support, including small grants or credit, business and digital marketing training and mentoring, directed at young people in villages with rapid growth but low value capture. The second is the strengthening of village tourism committees able to negotiate formal agreements with operators on scheduling, pricing and revenue sharing, using the LP1 agreement as a model. The third is product development to convert day visits into higher-spending experiences combining natural attractions with guided cultural activities and craft sales. Provincial tourism departments are well placed to coordinate these, and rapid growth in domestic and Chinese demand provides a market that earlier CBET projects lacked.

## 6. Conclusion

This study examined how the Lao–China railway has changed community-based ecotourism and youth employment in four villages in Luang Prabang and Vang Vieng. Visitor arrivals rose by between 62 and 148 per cent in the three years after the railway opened, and

the proportion of young residents earning tourism income rose from 27 to 47 per cent. These gains, however, have not been matched by proportional local benefit. An estimated 14 per cent of visitor spending is retained within the villages, most youth employment is seasonal and informal, and the villages with the fastest growth in arrivals recorded the weakest outcomes in enterprise ownership, training and income. The village with the strongest institutions, most diversified product and a formal agreement with operators retained the largest share of spending and offered the best employment outcomes despite the smallest increase in visitors.

The central conclusion is that infrastructure-led growth in tourism demand does not automatically translate into community benefit. Targeted enterprise support, skills development and collective institutions capable of negotiating with operators are required if the railway is to contribute to inclusive rural development. The study has limitations. It covers four villages in two destinations and its visitor and spending estimates rely on records of varying quality; recalled employment for 2021 is subject to memory error; and the three-year period since the railway's opening may be too short to observe longer-term adjustment by villages and operators. Future research should extend the analysis to villages along the railway in Oudomxay and Luang Namtha, track changes over a longer period, and evaluate specific enterprise support interventions through comparative or experimental designs.

### Acknowledgment

The authors acknowledge the support of the National University of Laos and Yunnan University and thank the village tourism committees for access to their records.

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