

# Circular Economy Orientation Of Community-Based Tourism Households: An Investigation In Ha Giang Province Of Vietnam

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## Abstract:

Community-based tourism (CBT) has been regarded as focal strategy for sustainable development of many countries, including Vietnam. In Vietnam, Ha Giang is a poor bordering mountainous province with limited resources and difficulties in transportation, yet the province have a lot of tourism resources including diverse topography and landscape ecology and cultural diversity which are suitable for CBT. Recently, circular economy has been recommended as a positive orientation for CBT development. Our study aims to initially examine the orientation of circular economy among CBT households in Ha Giang province, Vietnam. We used a mix-method design with survey questionnaires and interview to explore the current status of the application of circular economy in CBT. The study findings show that local government and residents have challenges in comprehensively understanding circular economy orientation theoretically and suggest simple explanation of such concept so that they can be aware of its benefit and actively apply circular orientation in their CBT activities. Moreover, they recommend more preferential support from government for households applying circular economy orientation for their CBT. Future research can employ quantitative and qualitative empirical studies to further examine CBT with circular economy orientation in different countries and locals

**Key Word:** Community-based Tourism, Circular Economy, Survey, Interview.

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## I. Introduction

Ha Giang is a poor bordering mountainous province in the North of Vietnam, with the total product per capita is estimated at 34.24 million VND (General Statistics Office of Vietnam, 2023). Moreover, Ha Giang have 85.62% of the agricultural and forestry land area, 84% of the population of the province live in rural areas (Ha Giang Provincial Statistical Yearbook, 2023). With complex terrain conditions, many fragmented and high mountains, there is little large-scale, concentrated land area for agricultural production, along with the difficulties of the mountainous transportation system, thus affecting the transportation of agricultural goods and affecting the quality and value of local agricultural products. Therefore, agricultural and forestry production activities currently contribute nearly 1/3 of the total product to the province in 2022 (29.37%, HG Provincial Statistical Yearbook 2023). As a result, these bring a challenge for Ha Giang to rethink about their strategy of agricultural and forestry production to exploit the strengths and potentials of mountainous areas, such as converting to organic agriculture to take advantage of indigenous tree and animal varieties and exploit the traditional knowledge of local people, while combining it in a circular model. These will create momentum for agricultural economic development in the province.

Ha Giang is a mountainous province with many ethnic minorities living with many unique traditional cultural and livelihood characteristics with rich indigenous knowledge, which is great potential for tourism development. Specifically, in 2022 Ha Giang have welcomed 2,2 million tourists with an estimated revenue of 4,306 billion VND (Ha Giang Provincial Statistical Yearbook, 2023). Besides cultural diversity, Ha Giang have its advantages of diverse topography and landscape ecology, which is the potential for developing eco-tourism combined with CBT, which would help to create more sustainable livelihoods for the local residents of the province.

Ha Giang have 11 districts, which all have the preferable conditions and are developing community tourism models, however these models mainly focus on local people participating in tourism activities, not mentioning the “circulation orientation” in the development of these models. Therefore, this indicates a gap that our study will try to address, which is developing CBT from the perspective of circular economy in Ha Giang province.

This paper aims to initially examine the orientation of circular economy among CBT households in Ha Giang province, Vietnam. The findings of our study would provide an overview about the current status of circular economy orientation in CBT in this mountainous province. These could suggest several directions for

future research about circular economy orientation in CBT and managerial implications for promoting CBT with circular economy orientation in Giang province of Vietnam as a focal strategy for its sustainable development.

This paper is structured as follows:

- (1) In Section 2. Literature Review, we present the related literature on Community-based tourism, Circular economy, and Community-based tourism with circular economy orientation
- (2) In Section 3. Research Methodology, we show the methodology approach employed and justify its applicability of such approach
- (3) In Section 4. Results and Discussion, we summarize the study results and discuss on these results
- (4) In Section 5. Conclusions and Recommendations, we draw several conclusions and academic and practical recommendations

## **II. Literature Review**

### **Community-based Tourism**

Community-based tourism (CBT) was firstly proposed by Murphy (1985), who attempted to connect tourism and local communities's participation. Following research works continued the attempts to explain the relationships by emphasizing the role of local communities in developing tourism in particular and their local economy in sustainable direction (Murphy & Murphy, 2004; Richards & Hall, 2000). These previous studies have agreed on the concept of CBT as a form of tourism in which local communities play their critical roles in developing and managing tourism activities, reducing the negative impacts of mass tourism and the economic benefits arisen for such activities would stay and contribute to the local economy (Murphy & Murphy, 2004; Richards & Hall, 2000; Prabhakaran et al., 2014; Trejos & Chiang, 2009).

CBT has been acknowledged for providing various benefits for local community such as: increasing locals' income, bringing more employment, preserving local environmental resources, conserving local cultural and human values, improving creativity and innovation, boosting social capital (Joo et al., 2019; Oka et al., 2021, Noorashid & Chin, 2021, Thuy & Hop, 2021). These should significantly facilitate sustainable development of local communities (Thuy & Hop, 2021; Tongdaeng & Mahakanjana, 2022).

Due to its diverse benefits brought to the locals and to the general national economies, a lot of countries have been adopting CBT as the strategic direction for tourism development and general socio-economic development for future sustainable achievement (Phunnarong, 2021; Sugandi et al., 2020).

### **Circular Economy**

The concept of circular economy has been discussed and attracted academic and practical attention since the late 1970s. Various scientific research spent their efforts on conceptualizing circular economies (Andersen, 2007, Ghisellini et al., 2016; Su et al., 2013). These studies have been describing the concept of circular economy as a model that emphasizes its basic principle that "everything is an input to something else", completely unlike the perspective of the traditional linear economy (Pearce & Turner, 1989). The literature describes the circular economy as an industrial system that recovers or regenerates by intention and design (Geissdoerfer et al., 2017; ). Specially, circular economy emphasizes the transitions to renewable energy, eliminating the use of toxic chemicals and waste that degrades reuse through superior design of materials, products, and systems. Or to put it simply, circular economy turns the output waste of one industry into input resources of another industry or circulating within a business itself (Prieto-Sandoval et al., 2018). Circular economy partly contributes to increasing value for businesses, reducing resource exploitation, reducing waste treatment costs, and minimizing environmental pollution (Velenturf & Purnell, 2021).

Murray et al (2017) stated that circular economy focuses on redesigning production processes and material cycles; From there, it was possible to create more circular and sustainable business models. However, the author also believes that the current model still contains inadequacies and limitations such as the absence of social capital dimensions, which limits the ethical aspects of the model and can contain some unforeseen consequences.

### **Community-based Tourism with Circular Economy Orientation**

Research by Brightley (2017) shows that applying the circular economy model in tourism can help promote the sustainable use of resources, improve the efficiency and effectiveness of tourism, from That achieves the goals of sustainable tourism development. Besides, this study also believes that flexibly applying circular economy thinking will effectively contribute to the sustainable development process, through effective and efficient waste management, optimize the use of water and energy resources, and increase the use of renewable energy sources (Brightley, 2017).

In addition, Servin (2017) has provided suggestions for hotels to reduce their "water footprint" (a term that refers to the amount of water used throughout the life cycle of a product, process or activity, which

measures direct and indirect water consumption, and water pollution from various sources), improve eco-credentials and contribute to circular economy through choosing forms and methods of laundry - ironing and using products for tourism - accommodation business activities aimed at reuse or recycling.

A study by Pham et al. (2022) in plastic waste management in Co To island suggests that circular economy could help address the pressure on waste treatment, change the awareness, and habits of local residents and tourism towards a more positive and sustained direction, which has been believed to significantly facilitate CBT of the islands. This study also recommends that circular economy model should be further applied in directing CBT development in particular and tourism in general (Pham et al., 2022).

### III. Methods

Our study employs an exploratory design, in which we attempt to describe the current status of CBT development with circular economy orientation in Ha Giang province by distributing the survey questionnaires to local households. Moreover, this study adopts interview to deeply understand the insights about CBT development with circular economy orientation among local authorities and residents. In summary, we used mixed methodology approach to design our study.

#### Questionnaire Survey

We design the questionnaires with two main sections, which are:

- (1) Questions about respondents' demographics information including gender, age, education, income level, and experience;
- (2) Questions about respondents' perspectives about CBT development with circular economy orientation, specifically, respondents would rate their answer based on 5-point Likert rating scale. The 5-point Likert scale consists of the following points: 1 - Strongly Disagree; 2 - Disagree; 3 - Neither Agree nor Disagree; 4 - Agree; and 5 - Strongly Agree.

The total population of Ha Giang is estimated around 855,000. Applying Yamane's formula of sample size, it is considered that 384 should be minimum sample which is sufficiently representative (Yamane, 1973). We conducted the survey in four districts (among 11 districts and city) of Ha Giang which are famous for their CBT destination, including Yen Minh, Dong Van, Meo Vac, and Hoang Su Phi. Therefore, we chose to distribute 100 survey questionnaires for each above-mentioned districts, resulting to a total number of 400 questionnaires to be distributed to the respondents, among which we obtained 392 valid returned questionnaires.

#### Interview

Face-to-face semi-structure interviews were employed to earned deep insights about CBT and CBT development with circular economy orientation in Ha Giang. We conducted the interview and used purposive sampling of local governmental leaders/officers and local residents, including 20 interviewees (5 interviewee in each of the four districts). We asked them several open-ended questions about their perspectives on CBT, circular economy, and CBT with circular economy. The profile of interviewees is presented in Table 1.

Category	Number - District	Expertise - Experience
Local governmental leaders	Interviewee 1 - Yen Minh	Agriculture, Management, 20 years
	Interviewee 2 - Dong Van	Agriculture, Tourism, 13 years
	Interviewee 3 - Meo Vac	Finance, Management, 18 years
	Interviewee 4 - Hoang Su Phi	Culture, Humanities, 15 years
Local governmental officers	Interviewee 5 - Yen Minh	Accounting, 10 years
	Interviewee 6 - Dong Van	Culture, 12 years
	Interviewee 7 - Meo Vac	Agriculture, 12 years
	Interviewee 8 - Hoang Su Phi	Tourism, 8 years
Local residents	Interviewee 9 - Yen Minh	Agriculture (10 years), Tourism (4 years)
	Interviewee 10 - Yen Minh	Agriculture (8 years), Tourism (3 years)
	Interviewee 11 - Yen Minh	Agriculture (12 years), Tourism (5 years)
	Interviewee 12 - Dong Van	Agriculture (10 years), Tourism (5 years)
	Interviewee 13 - Dong Van	Tourism (7 years)
	Interviewee 14 - Dong Van	Tourism (8 years)
	Interviewee 15 - Meo Vac	Agriculture (8 years), Tourism (6 years)
	Interviewee 16 - Meo Vac	Agriculture (13 years), Tourism (7 years)
	Interviewee 17 - Meo Vac	Agriculture (18 years), Tourism (6 years)
	Interviewee 18 - Hoang Su Phi	Agriculture (8 years), Tourism (4 years)
	Interviewee 19 - Hoang Su Phi	Agriculture (18 years), Tourism (6 years)
	Interviewee 20 - Hoang Su Phi	Agriculture (10 years), Tourism (5 years)

*Source: Summarized by Authors (2023)*

**IV. Results and Discussion**

**Survey Results**

Table 2 summarizes survey respondents’ demographic information.

Variable	Category	Number	Percentage
Gender	Male	216	55.1
	Female	176	44.9
Age	18 - 25	102	26.0
	26 - 40	192	49.0
	Above 40	98	25.0
Highest education	Literacy	19	4.8
	Primary School	67	17.1
	Secondary School	136	34.7
	High School	112	28.6
Experience	Higher Education	58	14.8
	Less than 5 years	318	81.2
	5 – 10 years	66	16.8
	Above 10 years	8	2.0
Income	Less than 2M	187	47.7
	2M – 5M	183	46.7
	Above 5M	22	5.6

*Source: Summarized by Authors (2023)*

Table 3 indicates the level of local residents about their awareness of reusing and recycling items in CBT activities.

No	Item	Mean	SD
1	I understand that reusing items is beneficial to the environment	3.82	0.83
2	I believe that reusing items saves costs	3.91	0.78
3	I clearly explain the reasons for reusing items for the sake of the environment	3.95	0.79
4	I clearly understand the environmental benefits of using crop and livestock waste in production	3.94	0.76
5	I clearly understand the economic benefits of using crop and livestock waste in production	3.89	0.84
6	I clearly understand that using organic waste as an input source for production has economic benefits	3.90	0.81
7	I clearly understand that using organic waste as an input source for production has environmental benefits	3.97	0.83
8	Tourists like to use organic products	3.98	0.79
9	Tourists happily use repaired and adjusted items	3.85	0.79
10	Tourists happily use recycled items	3.80	0.78

*Note: SD=Standard Deviation (2023)* *Source: Summarized by Authors*

We can see from Table 3 that the local residents have a comparatively high awareness about reusing/recycling items in their CBT activities, with Mean of [3.80 – 3.98] and SD of [0.76 – 0.84].

Table 4 summarizes the level of local residents’ use of recycled or organic items in CBT.

No	Item	Mean	SD
1	Recycle and reuse of repaired items	3.50	0.93
2	The facilities is repaired for alternative purposes	3.48	0.93
3	Broken items are discarded	3.71	0.84
4	Use waste/by-products in agriculture and forestry as fertilizer	3.78	0.79
5	Using waste/by-products in agriculture and forestry as animal feed	3.73	0.80
6	Use organic waste as fertilizer	3.76	0.79
7	Use of organic fertilizers in farming	3.80	0.82
8	Use of organic animal feed in livestock production	3.74	0.83
9	Use of organic animal feed in aquaculture	3.77	0.86
10	Use of organic agricultural products for CBT	3.68	0.90
11	Use of new technology in domestic water systems to save water (thermoplastic pipes, water-saving faucets, metering systems)	3.78	0.76
12	Use of new energy-saving technology electrical equipment	3.71	0.79
13	Use of new generation air conditioners with low greenhouse gas emissions	3.68	0.83
14	Use of new generation refrigerators with low greenhouse gas emissions	3.70	0.86
15	Use of virtual utilities to replace physical utilities: Digital music, digital books...	3.68	0.86

*Note: SD=Standard Deviation (2023)* *Source: Summarized by Authors (2023)*

The information relected in Table 4 shows that local communities in Ha Giang province agree and are willingness to recycle and reuse of items after repairing their items, also they know and utilize organic waste/materials for their agriculture activities, from which they have input for CBT activities (e.g., food). Moreover, local residents initially use “green” and energy-saving equiplent in their CBT, with Mean of [3.48 – 3.80] and SD of [0.76 – 0.93].

Table 5 shows local residents’s use of handmade items in CBT. Table 4 indicates a quite high level of such use of handmade items in CBT processes and activities , with Mean of [4.12 – 4.44] and SD of [0.56 – 0.78].

<b>Table 5. Use of handmade items in CBT</b>			
No	Item	Mean	SD
1	Tourists like to use home-made products	4.18	0.63
2	Tourists like to use items made from local natural ingredients	4.20	0.61
3	Tourists like to use organic agricultural products	4.31	0.65
4	Tourists do not like dishes made from ingredients brought from other places	4.14	0.78
5	Tourists like to mingle with nature	4.44	0.64
6	Tourists do not like unnatural landscapes	4.12	0.71
7	Tourists like terraced fields	4.37	0.58
8	Tourists like to participate in experiencing organic agricultural activities	4.36	0.56

*Note: SD=Standard Deviation* *Source: Summarized by Authors (2023)*

Table 6 reflects the level of local communities’ waste limit in CBT activities. The figures reflected show that local residents and tourists are quite aware of limiting waste and be willing to limit their waste discards in CBT activities, with Mean of [3.71 – 3.95] and SD of [0.75 – 0.99].

<b>Table 6. Limit waste in CBT</b>			
No	Item	Mean	SD
1	Local people are aware of limiting waste	3.81	0.82
2	Foreign tourists are conscious of limiting waste	3.87	0.78
3	Domestic tourists are conscious of limiting waste	3.89	0.77
4	Tourists do not complain about having to use reusable items	3.88	0.75
5	Tourists do not complain about having to use low-waste utensils	3.74	0.99
6	Tourists like to use products made from local, environmentally friendly materials	3.71	0.95
7	Local people share and expect tourists to use reusable items such as paper bags, rattan baskets, glass cups...	3.75	0.82
8	There are regulations on waste limitation in community tourism	3.91	0.76
9	Foreign tourists actively participate in reducing waste	3.93	0.77
10	Domestic tourists actively participate in reducing waste	3.95	0.77
11	If there are environmentally friendly items such as paper bags, biodegradable items... then everyone in the village will actively receive and use them	3.95	0.79

*Note: SD=Standard Deviation* *Source: Summarized by Authors (2023)*

### Interview Results

The local governmental leaders and officers shared their understanding and opinions about CBT and CBT with circular economy orientation, as below:

*“...we continue to focus on improving the quality of CBT service, especially training on-site human resources for community tourism destinations. Promotion work has also been enhanced in many forms such as establishing folk art teams to serve tourists in community cultural tourism villages. Along with that, the local government also continues to strengthen propaganda and promotion, helping local residents understand more about their traditional cultural values to contribute to preserving and developing these values. Thus, these step by step become typical tourism products ....”*

*“...Recently, the concept of circular economy has been introduced and promoted. As local governemental leaders and officers, we have been accessed to training programs about circular economy orientation and do believe that this orientation should be applicable as the model for CBT development in our districts...”*

*“...Since the concept of circular economy is very new to our knowledge, it is essential that provincial and state government should organize more diverse training programs, with simple handbooks for us to disseminate such knowledge to our local residents in the most simple ways, so that they can understand and further impliment that circular economy orientation in CBT activities, due to theirs benefits brought to the local communities...”*

Local residents in the four districts also share their perspectives about CBT and CBT with circular economy orientation, as the followings:

“...due to our limited education and knowledge, we hardly deeply understand the concept of circular economy. Thus, it is necessary for us to access the training programs which are simple and equipped with real case studies or true stories about the success of CBT with circular economy orientation, so we can understand its real benefits and know how to apply it in our CBT development...”

“...we may need a list of activities that can be considered as circular orientation in CBT so we can easily and conveniently apply for our CBT activities. Moreover, government should have better and preferred support for households who apply CBT with circular economy orientations, such as subsidies, reduced interest rate for bank loans, so we will have motivations to apply circular economy orientation in our CBT activities...”

## V. Conclusion

This study used a mix-method design to investigate the status of CBT with circular orientation in Ha Giang province, Vietnam. The results of the survey indicate that local communities and tourists are aware of “circular effects” in their CBT activities such as use of handmade items, limiting their waste, and use of recycled or organic items in their CBT activities. Meanwhile the interview results disclose several problems raised by local governments and local residents about the application of CBT with circular orientation. Specially, local communities have difficulties in understanding circular economy orientation in the theoretical angle, so they recommend simple explanation of that concept with listed benefits brought to their livelihoods, real case studies (both in foreign and Vietnam locals), successful stories about that application, for their enhanced awareness about CBT with circular economy orientation and its benefits. Moreover, preferential support should be provided for households applying circular economy orientation for their CBT activities (subsidies, decreased bank loans, etc.). These could help facilitate wider application of CBT with circular economy orientation in Ha Giang province.

Future research is encouraged to further conduct quantitative and qualitative empirical studies to have deeper understanding about CBT with circular economy orientation in alternative locals in Vietnam and other countries. These research could enrich pertinent literature and research stream of CBT and circular economy and further recommend practical means to promote CBT with circular economy more effectively.

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