

PLASTIC WASTE REDUCTION IN HUE CITY'S TOURISM SECTOR: AWARENESS, PRACTICES, AND BARRIERS FROM THE PERSPECTIVE OF BUSINESSES

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Abstract

Plastic waste pollution has become a major challenge to sustainable tourism development. This study assesses awareness, the extent of implementation of plastic reduction measures, barriers to implementation, and businesses' support needs using methods such as secondary data collection and analysis, surveys, and data processing and analysis. The results indicate that most businesses have positive perceptions of the benefits of plastic reduction and have implemented various plastic reduction measures at relatively high levels. Accommodation establishments mainly focused on minimizing single-use plastic products and promoting reuse practices in daily operations, while travel businesses prioritized measures aimed at raising tourists' awareness and encouraging behavioral change. However, businesses still face significant barriers during implementation, particularly the high cost of alternative products, limited financial resources, and insufficient supply of environmentally friendly materials. The project "Hue - A Plastic Smart City in Central Vietnam" implemented by WWF-Vietnam was positively evaluated by businesses for its contributions to raising awareness and promoting participation within the tourism sector. The t-test results revealed a statistically significant difference in the level of barriers perceived between the two groups of businesses, while no statistically significant difference was found in awareness levels between the two groups of businesses. Based on these findings, the study proposes policy recommendations, incentive mechanisms, and enhanced multi-stakeholder collaboration to support the plastic reduction transition in Hue's tourism sector toward 2030.

Keywords: tourism businesses; green tourism; plastic waste; plastic reduction; Hue City.

1. INTRODUCTION

Plastic waste pollution, particularly single-use plastics, has become a serious challenge to global sustainable development goals. According to the United Nations Environment Programme (UNEP), approximately 50% of the plastic produced worldwide is designed for single use or disposal within a short period of time (UNEP, 2018; Strippoli et al.). In the tourism sector, this issue is of even greater concern due to the rapid consumption nature and the widespread use of single-use products such as water bottles, plastic bags, straws, and personal amenities (Global Tourism Plastics Initiative, 2021). Therefore, reducing plastic waste not only helps protect ecosystems but is also a key factor in enhancing destination image and promoting responsible tourism.

In Vietnam, plastic reduction goals and actions have been concretized through the National Action Plan on Marine Plastic Waste Management toward 2030 (Prime Minister, 2019). In Hue City – a major heritage and tourism hub – the demand for green development has become increasingly urgent. On October 26, 2023, the Department of Tourism of Thua Thien Hue Province issued Plan No. 1741/KH-SDL on reducing plastic waste in the tourism sector for the 2023-2025 period (Department of Tourism of Thua Thien Hue Province, 2023).

Alongside local policies, the project “*Hue - A Plastic Smart City in Central Vietnam*” (hereinafter referred to as the TVA Project), funded by WWF-Norway through WWF-Vietnam, has created important momentum through training activities, the development of pioneering hotel models, and the establishment of community-based tours promoting plastic reduction.

During the 2023-2025 period, Hue recorded 102 businesses signing commitments and 12 hotels pioneering plastic reduction practices (Department of Tourism of Hue City, 2025). However, current reports mainly remain descriptive in nature, while quantitative assessments from businesses regarding awareness, operational barriers, support needs, and the effectiveness of plastic reduction measures are still lacking. Differences between accommodation establishments and travel businesses in terms of their ability to control sources of plastic waste generation, influence tourist behavior, and maintain plastic reduction practices remain an important research gap that needs to be clarified to develop tailored solutions.

Based on the above context, this study was conducted to: *(i) assess awareness and the current implementation of plastic reduction measures among accommodation establishments and travel businesses in Hue City; (ii) identify barriers, support needs, and the preliminary effectiveness of plastic reduction activities during the 2023-2025 period from the business perspective; and (iii) propose recommendations to promote the plastic reduction roadmap in Hue’s tourism sector toward 2030.* The findings provide additional practical evidence for improving green tourism policies, strengthening business participation, and supporting Hue City in achieving its goals of developing a green, plastic-smart, and sustainable tourism destination.

2. RESEARCH METHODS

2.1. Secondary data collection and analysis method

The references included policy documents, reports from tourism management authorities, materials from the TVA Project, and reports related to green tourism, plastic waste management, and the circular economy.

Secondary data sources were used to establish the research context, identify research problems, support questionnaire design, and compare them with survey findings. The combination of primary and secondary data enhanced the practical relevance of the study and supported the interpretation of results in relation to the plastic reduction policies and programs currently being implemented in Hue City.

2.2. Survey and questionnaire method

Primary data were collected through a questionnaire survey conducted among tourism businesses in Hue in 2025. The survey targeted 180 hotels (with more than 20 rooms) and 60 travel agencies. Of the 240 questionnaires distributed, 54 valid responses were received, comprising 36 hotels and 18 travel businesses, yielding a response rate of 22.5%.

A non-probability sampling approach was employed, combining convenience sampling and voluntary participation. The questionnaire covered six key areas: business characteristics, awareness of plastic reduction, implementation practices, perceived barriers, support needs, and the effectiveness of plastic reduction measures. Responses were measured using a five-point Likert scale, ranging from 1 (Strongly Disagree/Very Low) to 5 (Strongly Agree/Very High).

Before the full-scale survey was administered, the questionnaire was pilot tested with five tourism businesses to assess clarity, relevance, and comprehensibility. Based on the feedback received, several adjustments were made to improve the survey instrument. The

internal consistency of the measurement scales was subsequently evaluated using Cronbach's Alpha, with coefficients ranging from 0.78 to 0.85. According to Gliem (2003), these values indicate good reliability, confirming that the scales were sufficiently robust for further statistical analysis.

2.3. Data processing and analysis method

After collection, the data were cleaned, coded, and analyzed using the Data Analysis tool in Microsoft Excel. Descriptive statistical methods, including frequency, percentage, and mean value analysis, were employed to reflect the levels of awareness, implementation, and evaluation among businesses.

Common variables were compared between accommodation establishments and travel businesses using the Independent Samples t-test. Specifically, Student's t-test was applied when the variances of the two groups were assumed to be equal, whereas Welch's t-test was used when the variances were unequal or when sample sizes differed between the two groups (Ruxton, 2006; Delacre et al., 2017). The level of statistical significance was set at $p < 0.05$; values below this threshold indicate statistically significant differences between the two groups (Andrade, 2019).

3. RESULTS AND DISCUSSION

3.1. Sample characteristics

The accommodation establishment group sample consisted of 36 establishments, of which hotels accounted for the majority (88.9%), while resorts represented the remaining 11.1%. All establishments surveyed were officially registered businesses with stable operational procedures. In terms of scale, 75% of the establishments employed more than 50 staff members, 16.7% had between 10 and 50 employees, and only 8.3% had fewer than 10 employees.

For the travel business group, the research sample included 18 businesses with a diverse structure: 50% were international travel businesses, 38.9% were general travel businesses, and 11.1% were domestic travel businesses. The significant presence of businesses serving international markets provides a favorable foundation for promoting environmental protection standards. However, regarding workforce size, up to 77.8% of the businesses had fewer than 10 employees. This characteristic indicates that although travel businesses possess high operational flexibility, they may face limitations in terms of dedicated human resources and long-term investment capacity for plastic reduction solutions compared to the accommodation establishment group.

3.2. Awareness and perceptions of plastic reduction

The survey results indicate a high level of agreement among tourism businesses in Hue regarding plastic reduction practices. The mean scores of the statements ranged from **3.59 to 4.90** (Figure 1), with most responses concentrated in the categories of "*agree*" and "*strongly agree*" (Figure 2). Statements concerning the core benefits of plastic reduction received particularly strong consensus, including: mitigating pollution and conserving biodiversity (Q4); enhancing community awareness and promoting sustainable tourism development (Q3); enhancing the image of Hue as a tourism destination (Q5); and recognizing plastic reduction as a prerequisite for sustainability (Q7).

Notably, statement Q4 achieved the highest score (4.9/5.0), with 94.4% of businesses selecting "*strongly agree*," demonstrating their high level of awareness regarding the impacts

of plastic waste. Similarly, variables Q3, Q5, and Q7 also achieved high mean scores ranging from 4.7 to 4.9. Specifically, the proportion of “*strongly agree*” responses for Q3 exceeded 88.9% in both groups; Q5 ranged from 91.6% to 94.4%; and Q7 reached 83.3% in both groups (Figure 2). These findings confirm that tourism businesses in Hue are prepared and clearly aware of the role of plastic reduction in their long-term development strategies.

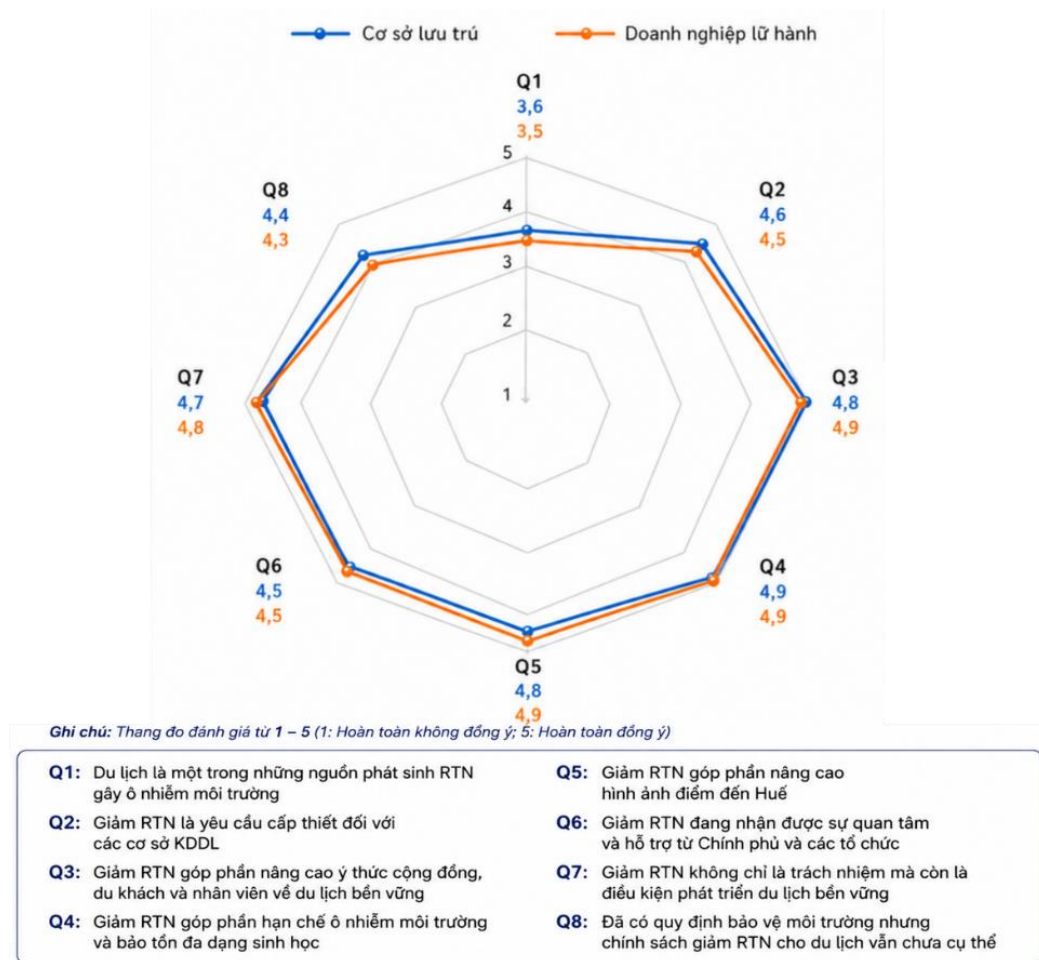


Figure 1. Average assessment of awareness and perceptions of plastic reduction among accommodation establishments and travel businesses in Hue City

Note: The assessment scale ranges from 1 to 5 (1: Strongly Disagree; 5: Strongly Agree).

Q1: Tourism is one of the main sources of plastic waste pollution.

Q2: Reducing plastic waste is an urgent requirement for tourism businesses.

Q3: Reducing plastic waste contributes to raising community awareness, encouraging tourists to adopt environmentally friendly behaviors, and promoting sustainable tourism development.

Q4: Reducing plastic waste helps mitigate environmental pollution and conserve biodiversity.

Q5: Reducing plastic waste contributes to enhancing the image of Hue as a tourism destination.

Q6: Plastic waste reduction is receiving increasing attention and support from authorities and organizations.

Q7: Reducing plastic waste is not only a responsibility but also a prerequisite for sustainable tourism development.

Q8: Although environmental protection regulations exist, policies on plastic waste reduction in tourism remain insufficiently specific.

Statements Q2 and Q6 also recorded relatively high levels of agreement. Regarding the view that plastic reduction practices are an urgent requirement (Q2), the mean scores ranged from 4.5 to 4.6, with the proportion of “*strongly agree*” responses reaching 77.7% among accommodation establishments and 61.1% among travel businesses. For the statement concerning the attention and support from relevant stakeholders (Q6), the average score for both groups was 4.5, indicating that businesses perceived support and engagement from society and authorities.

In contrast, Q1 and Q8 showed lower levels of agreement. The statement that the tourism sector is a major source of plastic waste generation (Q1) received the lowest mean score (3.5–3.6). Notably, within the travel business group, only 16.7% selected “*strongly agree*,” while as many as 44.4% selected “*partially agree*” (Figure 2). This may be explained by the nature of travel services, where plastic waste is generated across a dispersed supply chain, including transportation, food services, and destinations, making it difficult for businesses to directly quantify their own contribution to waste generation. In practice, however, the use of single-use plastic products for serving tourists still causes the tourism sector to contribute significantly to the overall volume of waste.

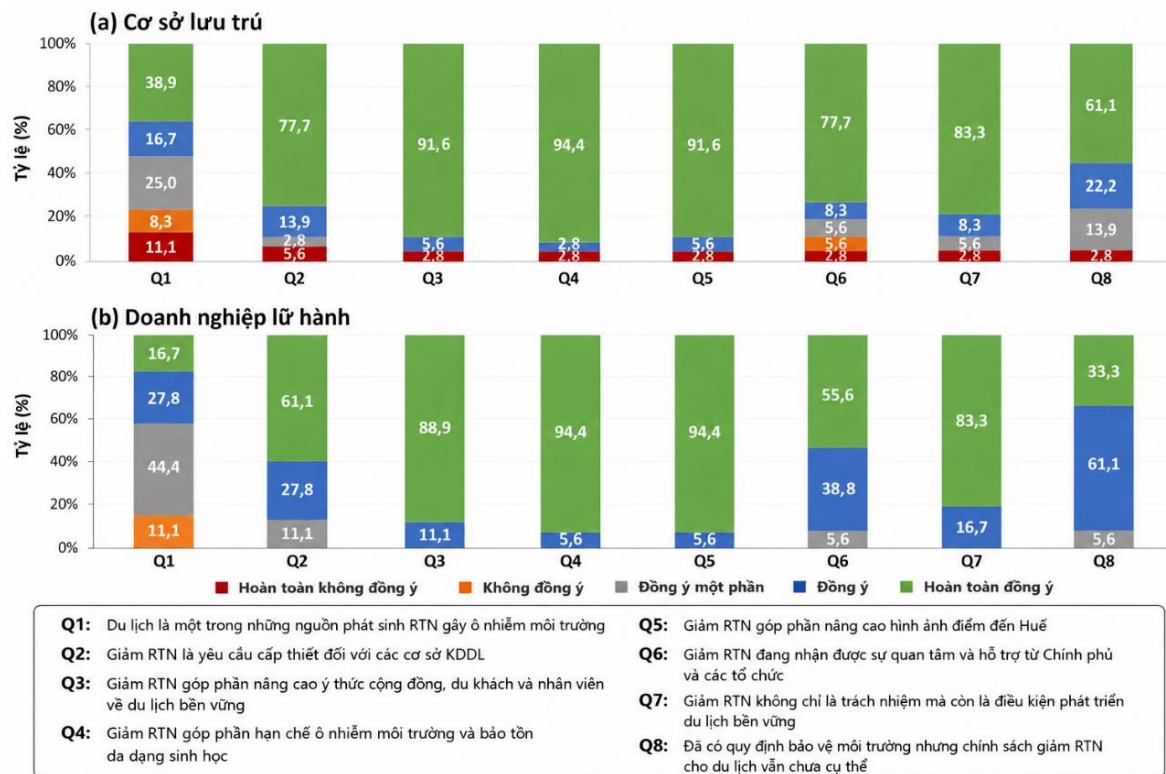


Figure 2. Levels of agreement with statements on plastic waste reduction among accommodation establishments and travel businesses in Hue City

Regarding the environmental policy framework (Q8), the level of agreement ranged from approximately 4.3 to 4.4. Businesses considered that existing regulations remain largely general in orientation and still lack specific criteria as well as direct support mechanisms to facilitate the

transition toward plastic reduction models.

The results of the t-test conducted on the overall mean scores of the awareness variables indicated no statistically significant difference between accommodation establishments and travel businesses ($p = 0.99 > 0.05$). The nearly identical mean values of the two groups demonstrate that, within the surveyed sample, the level of awareness regarding plastic reduction was relatively similar between the two types of tourism businesses.

3.3. Current implementation of plastic reduction measures

The study classifies and evaluates plastic reduction measures implemented by tourism businesses into three main levels: operational, behavioral, and system management. This approach allows for an analysis of the linkages between daily actions and broader management mechanisms.

At the operational level, measures focus operational on daily activities such as reducing the use of single-use plastics, replacing them with environmentally friendly materials, reusing products, and establishing waste sorting systems. These measures are relatively easy to implement and can immediately reduce the amount of plastic waste generated at the source.

The behavioral level aims at changing the awareness of employees and tourists through communication activities, training programs, and green practice initiatives. These measures not only reduce the volume of plastic waste but also contribute to the formation of long-term sustainable consumption habits.

The system management level includes strategic activities such as monitoring plastic waste volumes, selecting green partners, and developing plastic reduction initiatives to enhance long-term effectiveness.

The survey results showed that tourism businesses in Hue have initially integrated plastic reduction solutions at different levels, with relatively high implementation levels reflected in mean scores ranging from 3.8 to 4.9 (Table 1).

Table 1. Average scores of plastic reduction measures implemented by accommodation establishments and travel businesses

Level	Measure	Accommodation establishment	Travel business
Operational Level	<i>Reduce the number of plastic bags</i>	4.3	4.4
	<i>Reduce the supply of plastic bottles</i>	4.1	3.8
	<i>Use environmentally friendly/recycled products</i>	4.0	4.3
	<i>Reuse bottles, cups, and containers multiple times for other purposes</i>	4.4	–
	<i>Avoid single-use plastic items</i>	4.5	–
	<i>Buy packaged products in bulk</i>	4.5	–
	<i>Install sorting bins and signs to guide waste sorting</i>	4.1	–
	<i>Provide reusable umbrellas/raincoats for tourists</i>	–	4.0

Level	Measure	Accommodation establishment	Travel business
Behavioral Level	<i>Provide large water containers on tourist transport vehicles</i>	–	3.8
	<i>Refuse or limit the provision of plastic wrapped wet wipes</i>	–	3.7
	<i>Guide tourists to dispose of waste properly</i>	–	4.9
	<i>Encourage tourists to bring their own bottles/containers</i>	4.3	4.3
	<i>Train staff in waste sorting and collection</i>	4.3	4.0
	<i>Organize/participate in "Green Sundays" or community events to clean up the environment</i>	4.6	4.0
	<i>Share information on environmental protection initiatives</i>	–	3.9
	<i>Collaborate with tour guides to encourage tourists to reduce plastic</i>	–	4.3
	<i>Separate plastic waste</i>	4.6	4.4
	<i>Prioritize partners that supply green products</i>	4.5	4.2
System Management Level	<i>Monitor the unit's plastic waste volume</i>	4.2	4.1
	<i>Cooperate with collection/recycling units</i>	4.1	–
	<i>Develop initiatives for reusing or recycling plastic waste</i>	3.8	3.4
	<i>Organize tours that include litter picking and environmental cleanup</i>	–	3.4

Note: The assessment scale ranges from 1 to 5 (1: very low / 5: very high). The symbol (–) indicates that the measure was not applicable to the corresponding business group.

The results showed clear differences in the prioritization of plastic reduction measures between the two respondent groups:

- **Accommodation establishments:** Plastic reduction measures were implemented most strongly at the operational level. Owing to their ability to directly control on-site operations, hotels achieved high scores in purchasing products in bulk packaging (4.5), eliminating single-use plastic items (4.5), and reusing materials and amenities (4.4). These practices are consistent with the “*Waste Management and Recycling*” criteria under the Hue City Green Tourism Criteria, recently issued under Decision No. 1431/QD-UBND (People’s Committee of Hue City, 2026).
- **Travel businesses:** Although operational-level measures were implemented to a lesser extent than in the accommodation establishment group, this group showed the strongest performance at the behavioral level. The measure of instructing tourists to dispose of

waste in designated places achieved an almost perfect score (4.9). This finding confirms the important intermediary role of travel businesses in shaping tourists' behavior.

At the system management level, both groups recorded lower implementation levels compared to the other levels. Innovative activities such as recycling initiatives or designing tours associated with environmental clean-up activities remained limited, particularly in the travel business group (with a score of only 3.4).

Overall, the accommodation establishment group focused on plastic reduction at the operational and internal management levels, whereas the travel business group prioritized measures aimed at influencing tourist behavior. This difference reflects the distinctive roles of each group: accommodation establishments directly control material flows and consumption activities at service delivery points, while travel businesses connect with tourists and influence their awareness and behavior. These two approaches complement one another and are both essential for plastic reduction efforts. The effectiveness of plastic reduction initiatives can be further enhanced when technical, managerial, and behavioral change solutions are implemented simultaneously, together with stronger coordination among business groups across the tourism supply chain.

3.4. Barriers and support needs in implementing plastic reduction practices

The survey results showed that tourism businesses in Hue City were facing multidimensional challenges, primarily concentrated in three main groups of barriers: (1) costs and financial resources; (2) supply chains and policy support; and (3) human resources and awareness.

The greatest challenge identified was the investment cost of alternatives to single-use plastic products. The level of agreement regarding this barrier reached a mean score of 4.3 among travel businesses and 3.7 among accommodation establishments (Figure 3). In addition, businesses also encountered difficulties due to limited budgets and increased labor costs during the transition process. Overall, the travel business group perceived greater financial difficulties than the accommodation establishment group due to its limited resource capacity and heavy dependence on supply partners.

Beyond financial pressure, the limited availability of suppliers providing alternative products at reasonable prices was also considered a significant barrier, particularly for travel businesses (4.0 points). The lack of incentive policies and specific guidance from government authorities also created difficulties for businesses during the initial implementation stage.

Travel businesses faced greater challenges in assigning dedicated personnel and maintaining consistent awareness among staff members, scoring 3.2 points compared to 2.1 points in the accommodation establishment group. The flexible labor structure and reliance on freelance tour guides made it more difficult for travel businesses to control green practices throughout their supply chains.

In contrast, the lack of support from tourists was considered the least significant barrier, with scores ranging from 2.7 to 2.8 points. This result reflects a positive trend in which tourists are becoming increasingly responsible and more willing to accept sustainable solutions.

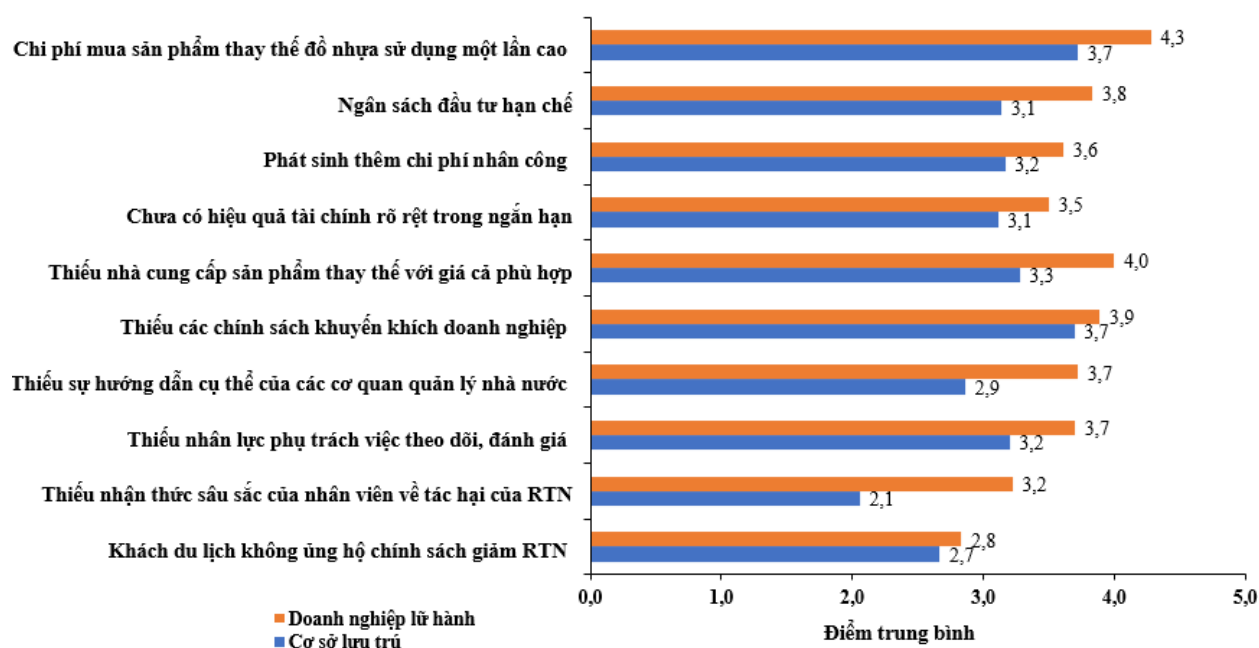


Figure 3. Average scores of the difficulties faced by businesses in implementing plastic reduction practices

Note:

- *High cost of purchasing alternatives to single-use plastic products*
- *Limited investment budget*
- *Increased labor costs*
- *Lack of clear short-term financial benefits*
- *Lack of suppliers providing alternative products at reasonable prices*
- *Lack of incentive policies for businesses*
- *Lack of specific guidance from government authorities*
- *Lack of personnel responsible for monitoring and evaluation*
- *Lack of employees' in-depth awareness of the impacts of plastic waste*
- *Tourists do not support plastic reduction policies*

To overcome the above barriers, businesses expressed a strong demand for technical support and partner network connections. The need for partner networking and technical assistance accounted for the highest proportion (over 72%), indicating that businesses urgently required access to alternative product suppliers and practical solutions. The accommodation establishment group showed greater interest in professional training programs (47.2%) compared to the travel business group (22.2%). In addition, brand promotion in association with plastic reduction initiatives was also considered essential for enhancing competitive advantages (Table 2).

Table 2. Percentage of businesses' support needs

Support need	Accommodation establishment (%)	Travel business (%)
<i>Training and experience-sharing programs</i>	47.2	22.2
<i>Financial support mechanisms</i>	52.8	44.4

<i>Promotion of plastic reduction initiatives</i>	58.3	61.1
<i>Technical support</i>	75.0	72.2
<i>Partner networking support</i>	77.8	77.8

The t-test results indicated a statistically significant difference in perceived barriers between the two groups of businesses ($p = 0.011 < 0.05$). Within the surveyed sample, travel businesses reported higher levels of barriers across all criteria. This difference stems from operational characteristics of travel businesses, which depend on multi-stakeholder supply chains, involving transportation, food services, and destinations, making the direct monitoring and control of plastic use behaviors more complex than the internal management model of accommodation establishments.

3.5. Effectiveness of plastic reduction activities and the impact of the “Hue – A Plastic Smart City in Central Vietnam” Project during the 2023–2025 Period

In the context of increasing concern over plastic waste generated from tourism activities, the TVA Project, implemented since 2021, has played a central role in promoting sustainable plastic reduction practices. The project has coordinated with relevant authorities to conduct awareness-raising training programs, encourage businesses to sign commitments, and develop a plastic reduction roadmap for the tourism sector during the 2023–2025 period. The survey results on business participation in the project showed that training activities and commitment-signing campaigns attracted the highest levels of participation, whereas participation in pioneering practice groups supported with equipment and materials remained limited due to strict technical requirements (Figure 4).

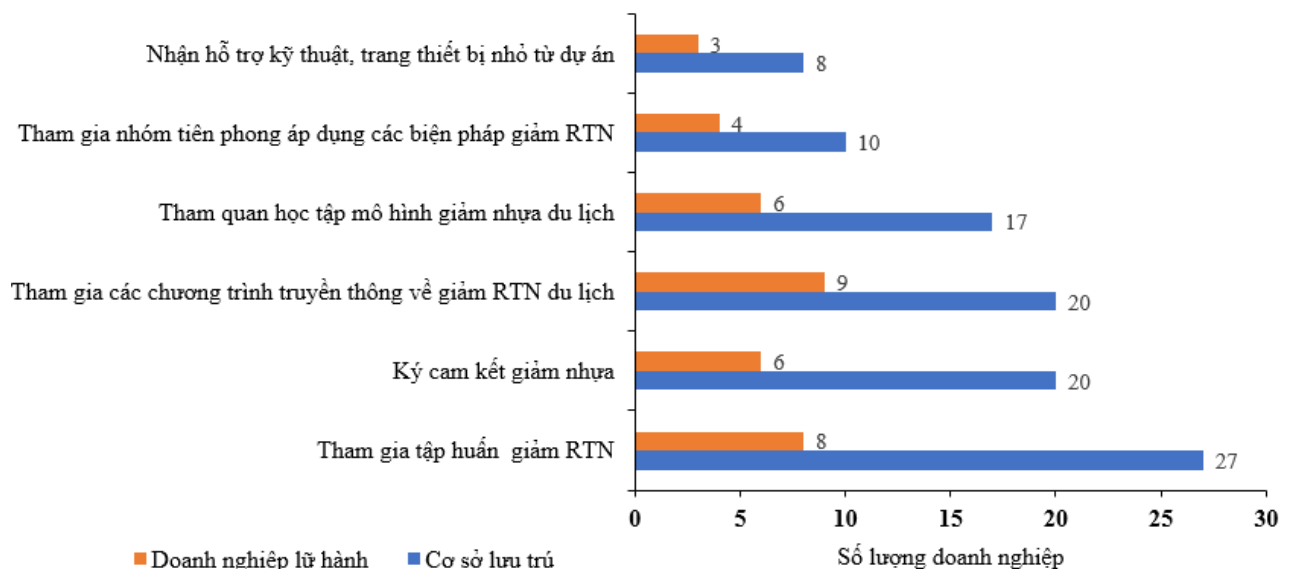


Figure 4. Level of business participation in the TVA Project

Top down choices:

- *Receiving technical support and small equipment from the project*
- *Joining the pioneer group in implementing plastic waste reduction measures*
- *Participating in field trips of plastic reduction models in tourism*

- *Participating in communication programs on tourism plastic waste reduction*
- *Signing commitments to reduce plastic use*
- *Participating in training sessions on plastic waste reduction*

When evaluating the effectiveness of implementation during the 2023–2025 period, tourism businesses in Hue reported positive changes, particularly in terms of enhanced staff awareness and positive responses from tourists (Table 3). Statements regarding the role of policies and the impacts of the TVA Project all achieved high mean scores (ranging from 4.1 to 4.5), confirming that the combination of administrative regulations and technical support from international organizations is an appropriate approach for implementing the tourism plastic reduction roadmap.

Table 3. Businesses’ perceptions of the effectiveness of plastic reduction during the 2023–2025 period

Measures/Actions to Take	Accommodation establishment	Travel business
<i>Mandatory/incentive-based policies help reduce plastic more effectively.</i>	4.4	4.5
<i>The TVA project has a positive impact on the plastic reduction roadmap.</i>	4.3	4.1
<i>Community awareness is enhanced, and behavioral changes regarding plastic reduction are promoted.</i>	4.2	3.9
<i>Plastic reduction measures attract increasing attention and participation from tourism businesses.</i>	4.2	3.9
<i>Tourists provide positive feedback on plastic reduction initiatives.</i>	4.2	3.9
<i>Destinations and businesses pioneering plastic reduction practices are widely promoted.</i>	4.2	3.9
<i>The volume of plastic waste generated from tourism activities decreases significantly through waste separation and recycling.</i>	4.2	3.8
<i>The rate of single-use plastic products tends to decrease gradually thanks to the application of Refuse, Reduce, Reuse, and Replace measures.</i>	4.2	3.3
<i>Some tourists may accept higher service prices at businesses with green label certification.</i>	4.1	4.0
<i>Managers and employees have opportunities to expand networks and share experiences regarding green solutions.</i>	4.1	3.9
<i>Communication activities on plastic reduction are implemented in diverse forms.</i>	3.8	4.3
<i>Operating costs are reduced by applying plastic reduction measures.</i>	3.8	3.6
<i>Plastic reduction does not increase total operating costs.</i>	3.5	3.3

Notably, the travel business group rated the effectiveness of communication activities higher than the accommodation establishment group (4.3 compared to 3.8). This reflects the distinctive role of travel businesses in shaping tourist behavior through guidance and the dissemination of an environmentally responsible lifestyle. At the same time, this group also demonstrated greater awareness of the potential of communication activities in enhancing brand image and responding to global sustainable tourism trends.

However, the economic effectiveness of plastic reduction remains the greatest concern among tourism businesses. Statements related to operating cost savings or the feasibility of implementation without increasing total operating costs received the lowest scores (ranging from 3.3 to 3.8). Many businesses expressed concerns about the financial burden arising from investments in alternative products and adjustments to operational processes during the initial stage. Nevertheless, some businesses had begun to recognize that tourists were willing to pay higher prices for services provided by environmentally certified businesses, thereby creating prospects for long-term competitive advantages.

In summary, plastic reduction practices in Hue have achieved important progress in terms of awareness and operational practices. Plastic reduction is not only an environmental responsibility but also a strategy for enhancing the competitiveness of Hue as a tourism destination. Therefore, in the long term, plastic reduction activities not only contribute to mitigating environmental impacts but also have the potential to strengthen brand image and create competitive advantages for businesses amid the trend toward green and sustainable tourism development.

4. RECOMMENDATIONS

The research findings show that plastic reduction in Hue's tourism sector should be promoted through an integrated approach with close coordination among government authorities, tourism businesses, professional associations, and technical support organizations. Plastic reduction should not merely focus on replacing single-use plastic products but should instead be viewed as a transformational process in business management and operations, including improving support mechanisms, adjusting operational processes, and strengthening monitoring activities.

For government authorities, it is necessary to develop a clear policy roadmap to gradually reduce and eventually prohibit the use of certain single-use plastic products, particularly those for which alternatives are available. In addition to mandatory regulations, incentive policies such as financial support, preferential financing, communication and promotional support, and recognition of businesses implementing green tourism practices would help reduce initial cost pressures and create motivation for maintaining long-term plastic reduction measures.

For tourism businesses, plastic reduction should be integrated into the entire operational process, from procurement and service provision to staff training and internal monitoring. Accommodation establishments should prioritize reducing single-use plastics in guest rooms, restaurants, and service areas, while travel businesses should focus on influencing tourist behavior through communication activities, tour guides, and the selection of partners committed to plastic reduction practices. In addition, promoting plastic reduction initiatives and encouraging tourist participation would further enhance effectiveness and expand sustainable tourism practices.

The Tourism Association, WWF-Vietnam, and related organizations should continue to play their roles in networking, providing technical support, sharing experiences and best practice models, and developing appropriate monitoring and evaluation tools. These efforts would help businesses access green supply sources, reduce cost-related difficulties, and strengthen implementation capacity.

For future research, it is necessary to expand in-depth qualitative surveys involving key stakeholder groups such as managers, tour guides, and suppliers of environmentally friendly products. At the same time, further studies on tourist behavior, particularly tourists' willingness to pay for green tourism services, are needed to assess the feasibility of maintaining and scaling up plastic reduction models.

5. CONCLUSION

The research findings show that tourism businesses in Hue City have highly positive awareness of the role of plastic reduction in environmental protection, enhancing destination image, and promoting sustainable tourism development. Plastic reduction measures have been implemented at relatively high levels. Accommodation establishments mainly focus on adjusting operational processes and using alternative products, whereas travel businesses have placed greater emphasis on communication activities and shaping tourist behavior. However, the implementation process still faces numerous challenges, primarily related to investment costs, limitations in the supply of alternative products, the lack of specific support mechanisms, and insufficient human resources for monitoring and implementing plastic reduction activities. The study also recognizes the positive role of the TVA Project in raising awareness, encouraging business participation, and supporting the development of plastic reduction tourism models at the local level. The research findings provide a practical basis to support Hue City in developing policies and a roadmap for plastic reduction in the tourism sector, thereby contributing toward the goal of developing "Hue – A Green Tourism City" and implementing the plastic reduction orientation toward 2030. Nevertheless, the study remains limited by its sample size and the use of purposive and convenience sampling methods; therefore, the findings may not fully represent all tourism businesses in Hue.

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