



RESEARCH ARTICLE

Evaluation of the Potential for Sustainable Agritourism Development in the Red River Delta and Northeastern Coastal Zone, Vietnam

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ARTICLE INFO	ABSTRACT
Received: Aug 24, 2024	<p>The objective of this study is to evaluate the potential for sustainable agritourism development in the Red River Delta and Northeastern coastal areas according to the AHP method. The evaluation criteria include: (i) bioclimatic resources for agritourism, (ii) agritourism resources, (iii) cultural resources of agritourism sites, (iv) main local tourism development policy, (v) Infrastructure quality, technical facilities for agritourism, (vi) environment and landscape, (vii) accessibility, (viii) participation of stakeholders in agritourism activities. The evaluation criteria system consists of 8 specific criteria that have classified tourism resources according to each resource point and identified suitable potentials to take advantage of agricultural values, traditional culture and characteristics of the local economy, wet rice civilization in the Red River Delta and surrounding areas. The research results show that there are 5 sites with high exploitability, 4 sites with low exploitation level. On that basis, the study proposes some recommendations for the development of agricultural tourism in the region.</p>
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INTRODUCTION

Agritourism has begun to receive the attention of the scientific community since the 1980s. Depending on the epistemological framework used, different authors have defined agrarianism through different but similar points of view. The research of Michał Sznajder and the authors has shown that the parallel existence of two terms in English, both meaning agrotourism: "agritourism" and "agrotourism"; it is a combination of "field (agri)" or "land (agro) with "tourism; but more common is the term "agritourism". Also according to this study, agritourism is a type of resort that often takes place on farms. The term agritourism is also understood differently by tourists and agritourism service providers (Sznajder M, Przebórska L, 2009). Previously, Bernard Lance also conceived that "agricultural tourism (also known as farm holidays) is a rural tourism product involving day visits to farms or with stays" (Lane et al. & Kastenzholz, 2019). Agritourism is also conceptualized by many researchers as a business consisting of two components: the working environment of the farm and the tourism business (McGehee, 2007). In its role of guiding global

activities and strategic planning for tourism, the World Tourism Organization (UNWTO) defines agritourism as a product of rural tourism when it defines "tourism". *Rural tourism is a type of tourism activity in which the visitor experience typically involves nature-based activities, agriculture, rural lifestyle/culture, fishing and sightseeing*" (UNWTO, n.d.). Although being studied from many different fields, agritourism is broadly conceptualized as "a combination of agricultural resources, activities, and traditions with the purpose of recreation." and education, which serve as a tourism product and ultimately increase farmers' incomes" (McGehee, 2007).

Agritourism has been suggested as one of the priority activities in an effort to improve the quality of rural life by many studies. This activity can be "a smart-chance" for the sustainability of rural mountainous environments because it has an exponential impact on several important parts of economic and social life of the community" (Ciolac et al., 2020). Author Gomes and his colleagues (2019) revealed that "small farming households mainly living in the suburban areas and are under great pressure of urbanization" are those who typically need to participate in agritourism as a strategy for income improvement (Gomes et al., 2019). From a social and environmental perspective, agritourism significantly contributes to maintaining the sustainability of agriculture, which currently holds a significant concern across national borders (Lupi et al., 2017). The development of agritourism reflects the desire of farmers to educate and motivate young tourists about agriculture (Petroman et al., 2016). Author Salvatore Ammirato and his colleagues have shown in a published review that the scientific literature has a very positive view of agritourism and is found to be consistent with the goals of the 2030 Agenda of the United Nations on Sustainable Development. *Agritourism can lead to poverty reduction, create job opportunities, create synergy with agriculture and local service sectors, achieve gender equality and stimulate infrastructure development such as road systems, ports and airports* (Ammirato et al., 2020). In addition, educational utility, cross-marketing utility and increased epistemology of agritourism are some of the potential benefits of agritourism, which have not been measured (Barbieri, 2020).

This type of agritourism typically offers fee-based activities such as daily sightseeing, recreational self-harvesting, hunting and fishing, nature and wildlife observations, and other outdoor activities (Pavić et al., 2018). Agritourism offers guests authentic experiences on a working farm, participating in agricultural activities (e.g. harvesting, feeding, preparing for storage) in contact with animals and nature and enjoy the food produced and cooked on the farm. At the same time, agritourism farms can provide services such as hotels, meal delivery, farm tours, on-site processing of agricultural products, or other optional activities, etc. (Phillip et al. , 2010a).

Agritourism development is influenced by many different factors. The factor groups are indicated according to their purposes and they are related to determining their influence on the income of enterprises, the attractiveness of agritourism products (demand driving factors) or the ability to provide farm tourism services (supply driving factors). Research by Veeck et al. (2006) has shown that the number of visitors, advertising costs and public transport positively affect the income of farms. (Veeck et al., 2006). Author Brandano and colleagues have identified "food, culture, traditions... are the factors that determine visitors' choice to the destination (Brandano et al., 2018a). The characteristics of each farm/farmer, resources and size, operations and management, staff training, and marketing of tourist farms are the factor groups that affect farms' income. This was announced in the publication of Jin et al (2022). The factors about farmer's attitude, farm size, location as well as some socio-economic factors (investment capital, policies...) affect a farm's ability to participate in agritourism from the point of view of tourism supply (Bhatta, 2020). In addition, the availability of means of transport and the uniqueness of the on-farm produce (clean, organic) also affect the volume of farm visitors (Sidali et al., 2019a; Yuwen et al., 2023). On the tourist demand side, the activities of agritourism production on traditional farms often attract tourists' interest when participating in agritourism (Bhatta, 2020). However, they are also interested in local heritage activities, wildlife observations, historical elements and farm animals, as well as visiting water

sources near the farm, experiencing local cuisine and agricultural produce consumption. In addition, market, promotion and environmental factors are also considered as important factors influencing both supply and demand for agritourism. From a different perspective, areas with rich natural conditions in landscape and contributing to the diversity of physical activities, entertainment and sports greatly create attractiveness for visitors to participate in agritourism. (Poczta-Wajda & Poczta, 2016a). In particular, a number of recent studies have highly appreciated the factors of distance (far from major tourist centers), safety and price as conditions that promote agritourism in the context of the pandemic. Covid-19 (Zawadka et al., 2022a).

Solutions to develop agritourism have attracted researchers around the world. The proposed solutions are diverse from different perspectives ranging from the community, businesses/farm owners, local authorities or the government. On the government side or local authorities, there should be solutions to support through policies such as encouraging the development of agritourism integrated in agricultural and rural support programs; establishing groups of associations to provide support through financial funds with a public sector role (Flanigan et al., 2015), (Srisomyong & Meyer, 2015). The government is also involved in the role of coordinating interests, limiting conflicts as well as contributing to efforts for sustainable development in rural areas. On the basis of assessing the factors affecting the income of agritourism businesses, the study has highlighted the importance of the locality when making regulations to promote agritourism and some suggested policies to promote agritourism in small areas (e.g. districts) in the early stages of development, particularly potentially in emerging developing economies such as rural areas of China and many other Asian countries (Jin et al., 2022).

On the side of farms/enterprises participating in agritourism, developing diverse products with many destination experiences is the proposal suggested by many publications (Brandano et al., 2018a). On the basis of assessing the attitude and satisfaction of tourists, agricultural activities on organic farms are suggestions for development to better meet the needs of tourists (Sidali et al., 2019). In addition, solutions to raise awareness of the government, businesses, farmers and communities about the benefits and sustainability of agritourism development are also really necessary in the context of many developing countries (Tew & Barbieri, 2012).

Although most of the research related to agritourism is looking for proposals to support the development of this type in different aspects, most of the recommendations are narrowly confined to case studies. Therefore, the development context of the economy; the natural, socio-economic conditions of different territories will be the basis for developing appropriate solutions for the development of agritourism at the local scale.

METHOD AND AREA STUDY

Area study

The Red River Delta and the northeastern coast are one of seven tourist regions according to Vietnam's tourism development planning to 2030. The north and west of the region are the northern midland and mountainous region, the south is the northern midland, the north central region, the east extends to the sea. In terms of location, this is the central region of northern Vietnam, the focal point of the West East and North South international exchange routes. This location has created favorable conditions for exchanging and absorbing the cultural quintessence of mankind, showing outstanding characteristics of Vietnamese culture to the world. In terms of nature, the Red River Delta and the northeastern coast have a humid tropical monsoon climate with a cold winter, diverse natural landscapes, and many unique features. On the coastal zone, the majestic mountains formed hundreds of millions of years ago with the bay area have created an attractive landscape. The Northern cultural region has mountainous terrain alternating with plains or valleys with vast forests, rich in the number of plant and animal species. The delta area is made up of alluvium of the Red River

and Thai Binh River systems, is the second largest rice granary in Vietnam with the method of farming for wet rice production. From the above characteristics, the Red River Delta and the northeastern coast have many resources for the development of many different types of tourism, in which agricultural tourism is considered as one of the types with great potential. Northern culture with a long-standing agriculture from production methods to village culture has created the region's unique agricultural tourism resources.

Methods

The authors have assessed the potential for sustainable agricultural tourism development by using the AHP research method to determine the weight of the criteria for evaluating the potential of agritourism through in-depth interviews with 15 experts. At the same time, this study uses the methods of synthetic assessment of tourism resources and performs resource classification, thereby identifying resource points with high potential to be exploited into agricultural tourism products.

Selection of aggregate evaluation criteria

Agritourism is a type of development that is affected by many different factors. The integrated assessment of tourism potential is complex in nature, influenced by factors such as: natural landscape, indigenous culture, destination capacity, accessibility of destination, and sustainability, the readiness of the local community, infrastructure, technical facilities to serve the needs of tourists, economic efficiency. With different development purposes, the types of tourism studied and evaluated depend on the reality of the destination to have appropriate evaluation criteria. According to Dwyer and Kim (2003), the ability to take advantage of the potential of a tourist destination depends not only on tourism resources but also on the combined effects of other complementary factors (Dwyer & Kim, 2003a). Studies have shown that bioclimatic resources (Matzarakis et al., 2013; Son, 2014) have important impacts on the development of tourism in general and agritourism in particular. Agritourism resources are identified as the core factor for the construction and formation of tourism product (Bhatta & Ohe, 2020; Brandano et al., 2018b); Agritourism resources are identified as factors such as landscapes of agricultural areas, crops, livestock, agricultural production methods that can be exploited into agricultural products... (Brandano et al., 2018b). The activities of agritourism need to be diversified, so the cultural factor of the tourist destination has a significant influence on the development of this type of tourism (Bhatta & Ohe, 2020; Sidali et al., 2019b). The location of the tourist destination relative to the arrival center plays an important role in attracting tourists, which is defined as the "accessibility of the destination" (Zawadka et al., 2022b). Technical facilities for agritourism have their own characteristics in terms of quantity, nature and quality requirements, which are different from those of other types of tourism. The characteristics of agritourism are associated with farms and agricultural areas, so the technical facilities for tourism activities need to be close to nature (Phillip et al., 2010b; Sarayrah et al., 2024). The environment and landscape of the agricultural production area and the rural atmosphere are the factors that attract tourists (Poczta-Wajda & Poczta, 2016b). Agritourism is a type associated with the activities of the local community, the development of agritourism products requires the support of local authorities and stakeholders. From the point of view of approaching tourism products, agritourism has characteristics close to community tourism. Therefore, in this study, the authors propose to use evaluation criteria: stakeholder participation and local tourism development policy.

The value of the criteria "*bioclimatic resources for agrotourism*", "*agritourism resources*", "*cultural resources of tourist attractions*", "*Involvement of stakeholders*", "*local tourism development policies*", "*environment and landscape*" is divided into levels: very high, high, medium and low. The criterion of "*quality of infrastructure and technical facilities*" is based on the results of field surveys and statistics of Vietnam. Accessibility represents the convenient level of infrastructure in tourism exploitation at each tourist resource site, which is an important external factor determining the development of a tourist destination. A tourist destination with high internal potential but complementary factors such

as infrastructure or inaccessibility, the tourist destination only exists in potential form (Dwyer & Kim, 2003a; Thi et al., 2016). The criterion of “*accessibility*” is measured by the time it takes to travel from each tourist destination to tourism facilities such as accommodation, food and beverage facilities, service facilities, means of transport, etc.

Method of determining the weight of evaluation criteria

This method is used to comprehensively evaluate tourism potential of a destination, the way to define the degree (Saaty, 1990) of each criterion’s contribution and the convenience at a specific site. Therefore, this study determines the weights for the criteria in the potential ranking process and performs the comprehensive assessment. Currently, there are many methods to determine the weights based on experts’ opinion, determined by regression analysis, or based on the analysis of economic factors. In fact, the weights of the factors are from the analysis of the triangular matrix (Huan, 2005), and the weights are determined by the method of hierarchical analysis AHP (Analytical Hierarchy Process) (Saaty, 1990). The weights make a decisive contribution to determining the importance of the criteria which clearly shows a clear hierarchy, the degree of influence on the development of tourism. This study uses the AHP analysis method to determine the weight of indicators to evaluate the potential of agritourism in the Red River Delta and northeastern coastal areas, because AHP is a technique to help research define the determining factors, arrange the criteria according to their importance level, thereby finding the most reasonable final decision. The AHP was developed by Saaty (1990) (Saaty, 1990) and expanded. Until now, the process of determining the weights of the evaluation criteria has been completed. In order to determine the weights for the criteria for evaluating agricultural tourism resources, the research team has interviewed 15 experts with profound experience in tourism in general and agritourism in particular in order to compare the level of importance of the criteria.

Integrated assessment method

To carry out the integrated assessment of tourism resources, methods are used such as Technical assessment method, Matrix assessment method, Cost benefit analysis method (CBA-Cost Benefit Analysis).), Randomized Valuation Method (CVM-6 Contigent Valuation Method), Travel Cost Method (TCM), Average Method of Component Points (Loi, 1992) or averaging component scores (Fail & Pass, n.d.), Method of factor analysis to determine weights (Huan, 2005), Method of multi-criteria analysis (Yu et al., 2002). In which, the multi-criteria analysis method is said to be the most objective and comprehensive to evaluate the development potential for agritourism destinations. The steps of multi-criteria assessment are carried out from evaluation according to criteria to general evaluation according to the formula:

$$A = \sum_{i=1}^n (X_i * Y_i) \quad (1)$$

In which:

A is the composite evaluation index

X_i is the evaluation weight of the i criterion

Y_i is the evaluation index of the i criterion

Classification of results of integrated assessment of agricultural tourism resources

Once the resource aggregate rating has been determined, a resource rating should be performed. The composite rating scale represents the assessment of agritourism potential at different levels: very high (A1), high (A2), medium (A3) and low (A4). The distance of each ranking level is calculated according to the formula (Huan, 2005):

$$\Delta A = (A_{max} - A_{min}) / M \quad (2)$$

In which:

ΔA : score gap between rating grades

A_{max} : the highest aggregate rating index

A_{min} : lowest aggregate rating index

M : number of rating levels ($M=4$)

Table 1: Indicators for evaluating the potential of agritourism in the Red River Delta and Northeast Coast

Evaluation criteria	Rating levels	Marking Schemes
Bioclimate resources for agritourism (I1)	Very high	10
	High	7
	Average	4
	Low	1
Agritourism resources (I2)	Very high	10
	High	7
	Average	4
	Low	1
Cultural resources of a tourist attraction (I3)	Very high	10
	High	7
	Average	4
	Low	1
Environment and landscape (I4)	Very high	10
	High	7
	Average	4
	Low	1
Quality of infrastructure, material and technical facilities for agricultural tourism (I5)	Very high	10
	High	7
	Average	4
	Low	1
Involvement of stakeholders (I6)	Very high	10
	High	7
	Average	4
	Low	1
Local tourism development policies (I7)	Very high	10
	High	7
	Average	4
	Low	1
Accessibility (<i>travel time from attractions to nearest accommodation, dining, airport, etc.</i>) (I8)	>3 hours	10
	2- 3 hours	7
	<2 hours	4
	0 - <1 hour	1

Sources: (Dwyer & Kim, 2003b; Huân, 2005; Thất & Đạt, n.d.; Thị et al., 2016)

RESULT AND DISCUSION

Weighting results according to AHP analysis method

The study carried out in-depth interviews with 15 tourism experts who have researched on agritourism and the Red River Delta and northeastern coast. The results of the interview using the

AHP method to determine the weights for the indicators to assess the potential for agricultural tourism in the Red River Delta and the Northeast coast show that indicators that greatly affect the development of agricultural tourism include agritourism resources (I12), bioclimatic resources for agritourism (I1), and landscape environment (I4). The indicators on the quality of infrastructure, material and technical facilities have little impact on the development of this type of tourism. Specific details are as follows:

The criteria for "agritourism resources" have the strongest impact on the development of agricultural tourist destinations with a weight of 0.17 (17%), the criterion of "bioclimate resources", "Environment and Landscape" has a weight of 0.12 (12%), the indicator of "cultural resources of a tourist destination" has a weight of 0.09 (9%), the indicator of "tourism development policy" "Stakeholder involvement", "Accessibility" has a weight of 0.07 (7%), the indicator of "Quality of infrastructure, material and technical facilities for agritourism" has a weight of 0.06 (6%).

Table 2: Average weight of criteria for assessing potential for agritourism

Evaluation criteria	Average weight
Bioclimate resources for agritourism	0,12
Agricultural tourism resources	0,17
Cultural tourism resources of tourist attractions	0,09
Environment and landscape	0,12
Quality of infrastructure, material and technical facilities for agricultural tourism	0,06
Involvement of stakeholders	0,07
Local tourism development policies	0,07
Accessibility	0,07

The potential for agritourism development is influenced by different factors, thereby formulating an agritourism development policy suitable for each resource point and the level of impact is shown in the following equation:

$$A = I1 * X1 + I2 * X2 + I3 * X3 + I4 * X4 + I5 * X5 + I6 * X6 + I7 * X7 + I8 * X8$$

This study determines the exploitation level of each resource site based on the results of aggregate evaluation and classification according to the table below:

Table 3: Classification of potential for agritourism development

Index	Resource Rating
>7	Very high exploiting ability
5- <7	High exploiting capacity
3- <5	Average exploiting Ability
<3	Low exploiting capacity

Results of the integrated assessment of the potential of agritourism in the Red River Delta and the Northeast Coast

The results of the integrated assessment of the potential at 16 resource sites for agro-tourism development in the Red River Delta and the Northeastern Coast show that this is an area with many potentials to develop this type of tourism. The results of the evaluation are shown in table 4.

Table 4: Result of classification of agritourism resources in the Red River Delta and Northeastern Coast

No.	Resource sites	Average score of assessment criteria (weighted)								Total score	Classification of the ability to exploit resources
		I1	I2	I3	I4	I5	I6	I7	I8		
1	Ba Vi Country Farm (SonTay, Ha Noi)	7.3	7.15	5.5	8.2	5.8	5.95	5.95	5.05	5.105	High
2	Chimi Eco Farm 4 (Đông Anh, Ha Noi)	6.85	7.54	4.6	7.7	6.55	6.1	6.55	4.75	5.053	High
3	Ban Rom Eco farm (Soc Son, Ha Noi)	5.05	7.5	6.25	6.8	7.75	5.95	6.85	7.5	5.146	High
4	Xam Xuyen Ornamental biology village (Thanh Tri, Ha Noi)	4.1	3.2	4.45	3.8	4.9	4.1	3.2	3.1	2.915	Low
5	Nho Quan Pinee Hill (Nho Quan, Ninh Bình)	8.05	5.5	5.65	6.7	5.5	6.7	6.1	6.55	4.898	Average
6	Thung Nham (Hoa Lu, Ninh Binh)	8.2	7.15	6.55	6.25	7.45	6.85	7.6	5.95	5.414	High
7	Gia Hưng sheep farm (Gia Vien, Ninh Binh)	6.5	7.1	4.9	6.25	6.55	6.5	6.85	5.65	4.901	Average
8	Vu Đại fish poaching village (Ly Nhan, Ha Nam)	3.85	5.8	6.25	5.05	6.7	6.4	7.9	4.15	4.310	Average
9	Xa Huang Lake (Tam Đảo, Vĩnh Phúc)	5.5	6.85	5.65	6.7	5.95	5.35	6.25	6.25	4.744	Average
10	Xuan Quan Flower Village (Văn Giang, Hưng Yên)	3.5	4.1	4.45	3.5	3.2	5.5	3.5	3.1	2.977	Low
11	Me So Bonsai Village (Hưng Yên)	5.5	5.1	6.85	6.85	6.4	5.5	6.85	5.5	4.599	Average
12	Chrysanthemum flower village (Van Lam, Hưng Yên)	5.2	6.5	6.7	7	6.25	7.1	5.5	7.3	4.940	Average
13	Phu Cu Logan Village (Phu Cu, Hưng Yên)	4.12	2.54	3.25	3.15	4.45	5.12	4.23	3.12	2.737	Low

No.	Resource sites	Average score of assessment criteria (weighted)								Total score	Classification of the ability to exploit resources
		I1	I2	I3	I4	I5	I6	I7	I8		
14	Nam Định Country Museum (Nam Định)	4.75	3.12	5.95	3.1	5.2	2.5	3.1	3.5	2.957	Low
15	Yen Duc Village (Đông Trieu, Quang Ninh)	6.1	7.6	5.95	6.4	5.8	4.45	7.15	8.5	5.083	High
16	Diem Dien – Salt making Village (Thai Thuy, Thai Binh)	6.75	5.95	7.15	6.85	6.4	7.15	6.2	5.5	4.991	Average

Source: Analysis of survey data by the authors (in 2023)

Analysis of the assessment results showed that five out of 16 sites of highly exploitable natural resources including Ba Vi Country Farm, ChimiFarm 4 Eco-farm, Ban Rom Eco-farm, Thung Nham, Yen Country Village among which, Thung Nham resource is the highest rated with a score of 5,414. The factors that greatly affect the exploitation capacity of agricultural tourist sites are mainly agricultural tourism resources (weight 0.17), environment and landscape of the resource site (weight 0.12), bioclimatic resources for agritourism (weight 0.12). Agritourism resource sites are assessed to have high exploitability because they have a diverse agricultural ecosystem, fresh environment, and a suitable bioclimate for agritourism experiences. The location of the resource sites is convenient for moving and participating in agritourism activities at weekends.

Thung Nham (Hoa Lu, Ninh Binh) has a rich tropical forest ecosystem, flora and fauna with a number of tourism products and high accessibility. These have led to the high possibility of tourism exploitation.

Ban Rom ecological farm (Soc Son, Hanoi) has offered a number of experiential products for students and children (one day as a farmer, experience activities, discovering the nature, developing life skills, etc.). Being near the center of Hanoi, airy atmosphere and attractive tourism products, Ban Rom has attracted a large number of tourists recently. The result of the expert's assessment on the exploitability of the tourist spot is 5,146, in which the criterion of agritourism resources is highly appreciated with a score of 1,275 (weight 0.17). The criteria of accessibility, environment and landscape, bio-climate resources of the tourist destination also have an important impact on the exploitability of this tourist spot with an assessment of 0.525 to 0.606.

Ba Vi Country Farm (Son Tay, Hanoi) is considered to be a highly exploitable spot for agri tourism activities because this tourist spot is located close to Ba Vi National Park, the conditions are very favorable. In terms of bio-climate and agritourism resources, they are very favorable for this type of exploitation. In addition, the cultural factors of the destination, accessibility and the system of infrastructure, technical facilities for agricultural tourism are in good condition for agritourism development.

Chimi Farm eco-farm and Yen Duc village are two tourist destinations that have been evaluated with high exploitability with an evaluation score of 5,053 and 5,083 respectively. In which, the factors that greatly affect the exploitation ability of these two sites are agritourism resources, cultural resources of the destination and the conditions for serving tourists include accommodation facilities, restaurants, entertainment and tourism products, and experience activities.

Four out of sixteen sites with low exploitation ability include Xam Xuyen ornamental trade village (Thanh Tri, Hanoi), Nam Dinh Country Museum, and Phu Cu longan village (Hung Yen), Xuan Quang Flower Village (Hung Yen). These places have strengths with agricultural products such as ornamental plants, fruit trees, flower villages... However, according to the survey and assessment of experts, the factors of accessibility, technical facilities for agritourism, culture of tourist attractions, environment and landscape... have not been meet the needs of tourists at the present time.

The remaining sites such as Nho Quan Pine Hill, Gia Hung Sheep Field, Vu Dai Fish Poaching Village, Me So Bonsai Village, Chrysanthemum Flower Village, Diem Dien Salt Making Village are ranked with medium exploitation capacity.

CONCLUSION

There are many factors affecting the development of a tourist destination. Based on the geographical characteristics of the Red River Delta and Northeastern coastal zone and the consultation with experts as well as tourism resource assessment works, this study has selected 8 criteria to comprehensively evaluate the potential for agritourism development in the Red River Delta and Northeastern coastal zone.

The AHP weighting method shows that among the 8 selected criteria, the criterion of agritourism resources plays the most important role (0,17). This shows that in the development of agritourism, specific factors in agriculture such as crops, livestock, crop production and the nature of agricultural production greatly affect the exploitation ability of this type of tourism. In addition, the environmental and cultural factors of the tourist destination (cultivation traditions of local people, community cultural values, village culture, etc.) also have strong impacts to shape the agritourism products.

The results of the integrated assessment of the tourist sites have shown that the Red River Delta and the Northeastern coast are rich in potential for agritourism development with 16 tourist resource sites evaluated. In which, there are 5 sites evaluated to have high tourism exploitation ability, 7 sites assessed to have medium exploitation ability, and 4 with low level of exploitation. Of the 16 assessed sites, the majority of sites have begun to be resourced into agritourism products. However, some sites have low exploitation capacity because the technical facilities for agricultural tourism have not met the requirements of tourists. The way of operating agricultural farms is not really suitable for agritourism activities. Besides, conflicts of interest among farm owners, locals and tourists in some tourist spots still exist. In order to develop this type of agritourism in the Red River Delta and northeastern coast, it is necessary to synchronously implement local policies in tourism development in general and agritourism in particular. Tourist zones and tourist sites need to have appropriate infrastructure systems and technical facilities which are suitable for agritourism. The development of agritourism products needs to be done in a greater depth targeting to specific kind of tourists.

On the basis of evaluating the potential for agritourism development, the next research, the authors focus on clarifying the role of stakeholders in the development of agritourism, analyzing the nature of agritourism, thereby building a system of typical agritourism products for the Red River Delta and Northeastern coastal zone.

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AUTHORS' CONTRIBUTIONS

Nga, N.T.P conceptualize the idea, designed the project and drafted the manuscript

Phan, T.T conducted the investigation and data analysis, review and editing (corresponding author)

Thuy, D.T Investigation, contributed to the study design and reviewed final manuscript

Xuan, D.T Investigation, review and editing

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