

RESEARCHES ON THE AGROTOURISTIC OFFER OF GUEST HOUSES IN DORNELOR BASSIN (CASE STUDY)

Cătălin-Răzvan VÎNTU^{1,2*}, Ioan Niculae ALECU¹, Aurel CHIRAN², Elena LEONTE²,
Andy-Felix JITĂREANU², Marcela ȘTEFAN³

¹ University of Agricultural Sciences and Veterinary Medicine of Bucharest

² Ion Ionescu de la Brad University of Agricultural Sciences and Veterinary Medicine of Iași

³ Academy of Economic Studies, Faculty of Agrifood and Environmental Economics, 5-7 Mihail Moxa St.,
District 1, 010961, Bucharest

Abstract

Sustainability in the rural area of the Romanian economy is closely linked to the possibility of meeting the consumption needs of the population through a growing, permanent, diversified and high-quality offer, in line with current and potential consumer needs. The agrotourism offer targets a certain segment of the population (tourists), being represented by both material elements (food, non-food goods), but above all, by agrotouristic services, which comprise a wide range of activities. Agrotourism is a form of rural tourism, being closely related to the agrotouristic household, which is based on the existing resources in rural areas (agricultural, touristic, human, economic). Agrotourism includes both basic tourist activities (accommodation, tourist hiking, basic tourist services such as catering and accommodation) and additional services, plus a series of agricultural activities (plant cultivation, livestock breeding), as well as the processing of agricultural raw materials within the households (agrotourist guest houses) and the capitalization of finished products, both to the tourists accommodated in the guest house and to the markets and fairs in the area. The research was carried out in Dorna Basin and covered 35 touristic and agrotouristic guest houses, of which 11 which own agricultural land (arable, natural pastures, natural meadows) and animals (cattle, pigs, poultry) were selected. The research had an applicative character and was based on a questionnaire, which was administered to a panel of 11 boarders of agro-touristic guest houses located in the Dornelor Basin. The work has an original character, being the result of own research by the authors.

Keywords: Agrotourism; Tourism offer; Sustainability; Service quality; Dorna Basin; Romania

Introduction

At present, agrotourism has a clear evolution that is practiced in most European countries, including Romania.

The advantage of practicing agrotourism is based on the possibility for the rural population to capitalize on local resources, thus generating additional revenues through the sale of traditional (food and non-food) products obtained in their own households [1-5]. This also explains the increase of interest of experts initiating some studies and researches in order to define the elements that characterize the concept of agrotourism [6-8].

* Corresponding author: catalin_vintu@yahoo.com

In this context, "The World Tourism Organization", referring to rural tourism, shows that "it is a form of tourism that includes any touristic activity organized and conducted in the rural area by the local population, capitalizing on the local tourist resources (natural, cultural-historical, human) as well as facilities, tourist structures, including guest houses and agrotourist farms" [9-11].

Also, in the specialized literature, the concept of agrotourism is defined as "the reception and hospitality activity carried out by individual or associated agricultural entrepreneurs and their families [12-19], using their own enterprise (household, holding) or rented business, so that the carried out activity has a complementarily ratio to the activities of land culture, forestry and animal husbandry, which should continue to be the main activities" [20].

After 1989, tourism and agrotourism activity in Romania had a downward trend, with negative effects on the incomes of the population, especially in rural areas, where the population represents over 45% of the total population.

Starting from this consideration, it is necessary to implement measures focused on the rural area, which will lead to the development of the touristic and agrotouristic offer, referring to the basic activities (accommodation, catering, playgrounds for children), to which those relating to agricultural and non-agricultural activities should be.

The research aims to evaluate the possibilities of development of the agrotourist offer, using the statistical questionnaire survey method, which focused on the following aspects: accommodation capacity of tourists, connection of guest houses to basic utilities, diversification of agrotourism services, increase and diversification of food and non-food products prepared within the guest houses, agricultural land, planting and animal husbandry, ways of promoting pensions and agrotourism services, estimating the possibilities for development and diversification of agrotourism activities in the future [21-24].

Material and method

The research was carried out within the Dornelor Basin in Suceava County, based on a panel of 11 agrotourist guest houses located in this area, selected from the 35 tourist and agrotouristic guest houses analyzed in this area.

The statistical survey method with a written questionnaire was used, which included a total of 12 questions, plus the identification questions. The information processing was carried out with the help of a Social Statistics Program, the SPSS-12 variant.

Results and discussions

The tourist offer is closely related to the existence of natural, historical, cultural resources, etc., along with the services and equipment that are available to tourists.

In another sense, "the tourist offer represents a set of services that can be bought at a determined price, in a certain place and time, and that allows a complete travel experience" [25, 26].

"After a period of 26 years (1990-2016), most of the guest houses have been affiliated to the ANTREC network and have been concerned with making investments aimed at increasing the quality of basic services (accommodation, food) and those related to rest and leisure" [27-30].

In this sense, the accommodation of the tourists is made in rooms that meet the minimum requirements for the guest house approval, with common or individual sanitary units, equipped with quality furniture and sanitary ware, according to the tourists' request [31].

Also, according to the demand of the tourists, meals are served in the kitchens, dining rooms, own terraces or small restaurants, which have the necessary equipment (furniture, tableware and special areas for preparing and storing food) [32].

In addition, some tourist and agrotouristic guest houses can provide recreational, leisure or cultural-educational and sports services.

The offer of agrotourism in the researched area includes several activities, of which we mention:

- Accommodation and food;
- Children's playgrounds;
- Horse riding (including sleigh ride) especially on forest roads;
- Thematic excursions for the knowledge of rural heritage, but especially to the knowledge of landscapes, flora, fauna and nature, in general;
- Participation in rural sports and cultural holidays (cycling, cross-country skiing, equestrian tourism, sport fishing, mountaineering, etc.);
- Excursions to rural communities, for the knowledge of collectives, traditional winter traditions (masks: goats, bears), Christmas and New Year's carols (Plugusorul, Steaua, Sorcova), wedding customs, folkloric ensembles (folkloric songs and dances), etc. [33].

"Agrotourism services are an essential part of meeting the consumption needs of tourists over a period of time that can be either holidays or a short weekend, or attending events that include several activities (travel planning, transport, accommodation, meals, recreation, thematic excursions for recreation, etc)" [34].

Agrotourism services may be specific - basic (transport, accommodation, food, recreation) and supplementary (information, hiking, marketing of traditional food and non-food tourist products, educational, sporting, plus non-specific services (public transport, communications, current utilities, medical care, maintenance, etc.) [35].

The accommodation capacity and classification of the analyzed guest houses are as follows (Table 1).

Table 1. Territorial location, accommodation capacity and classification of tourist and agrotourist guest houses in Dorna Basin

No.	Guest house	No. of flowers/ stars	Accommodation capacity (no. of places)	Village
1.	Vladimir	2	9	Ciocănești
2.	Andrei	3	6	Com.Coșna -sat Teșna
3.	Iovana	3	8	Dorna Candreni
4.	12 Apostoli	3	14	Dorna Candreni
5.	Ortoaia	2	12	Dorna Arini – sat Ortoaia
6.	Doru Muntelui	3	12	Dorna Arini – sat Ortoaia
7.	Dorna Arini	3	12	Dorna Arini – sat Ortoaia
8.	Elena	2	6	Iacobeni
9.	Drăgoiasa	3	8	Panaci
10.	Coverca	4	16	Panaci – sat Coverca
11.	Casa Flora	2	6	Poiana Stampei-sat Casoi
12.	Casa Florea	2	2	Poiana Stampei – sat Poiana Stampei
13.	Dorina	3	8	Șaru Dornei
14.	Ziana	3	8	Șaru Dornei – sat Neagra Șarului
15.	Casa bunicii	2	6	Șaru Dornei-sat Gura Haitii
16.	Casa Mariana	2	8	Șaru Dornei-sat Gura Haitii
17.	Poarta Călimani	2	6	Șaru Dornei-sat Gura Haitii
18.	Bonita Chalet	3	10	Șaru Dornei- sat Neagra Șarului
19.	Dumbrava Cerbilor	3	14	Șaru Dornei – sat Șaru Bucovinei
20.	Casa Runc	2	6	Mun. Vatra Dornei
21.	Veniamin Odochianu	4	20	Panaci
22.	La bella vista	4 stars	28	Dorna Candreni-sat Poiana Negrii
23.	Viorica	2	10	Ciocănești
24.	Le baron	4	19	Dorna Arini-sat Ortoaia

25.	Hunea	3	12	Panaci
26.	Karmina	3	30	Șaru Dornei
27.	Poiana	3	20	Poiana Negrii
28.	Sunători	2	6	Dorna Arini – sat Sunători
29.	Cecilia Laurenția	3	12	Ciocănești
30.	Casa Miruna	2	16	Dorna Candreni
31.	Casa Ana	3	6	Dorna Candreni
32.	Casa Nicușor	3	6	Dorna Candreni
33.	Vatra Dornei	3	12	Vatra Dornei- Obcina Mare
34.	Angela	3	12	Vatra Dornei
35.	Casa Dafina	3	12	Ciocănești
TOTAL			386	

Source: according to the primary records of the local administration to which the guest houses belong

The sample of the 11 selected agrotouristic guest houses has the following composition (Table 2):

Table 2. The sample of the 11 selected agrotouristic guest houses

No	Guest house	No. of flowers	Village
1.	Poiana	3	Poiana Negii
2.	Karmina	3	Șaru Dornei
3.	Hunea	3	Panaci
4.	Veniamin Odochianu	4	Panaci
5.	Doru Muntelui	3	Dorna Arini
6.	Cecilia Laurenția	3	Ciocănești
7.	Viorica	2	Ciocănești
8.	Vatra Dornei-Obcina Mare	3	Vatra Dornei-Obcina Mare
9.	Ortoaia	2	Dorna Arini – sat Ortoaia
10.	Drăgoiasa	3	Panaci
11.	Casa Dafina	3	Ciocănești

Source: according to the primary records of the local administration to which the guest houses belong

We mention that all the subjects in the sample received the same questionnaire and, after validation, all the guest houses were retained, their answers being complete and appropriate to the formulations [36].

The first question was "What accommodation capacity do you have?" (Fig. 1)

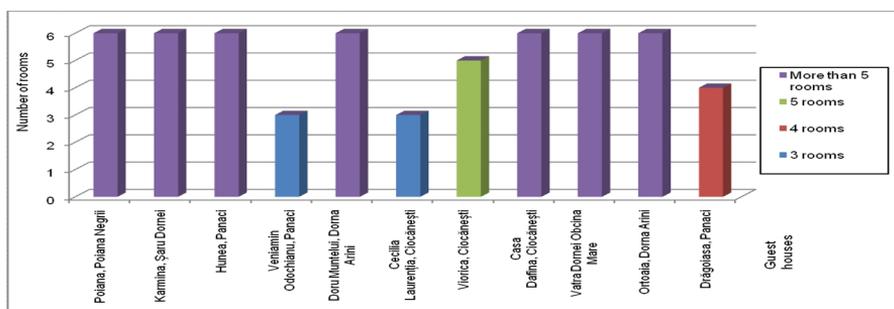


Fig. 1. Accommodation capacity of agrotourism guest houses

From the analysis of the presented data it was found that 63.6% of the guest houses have over 5 accommodation rooms, and only 4 of them have 3-5 rooms; in the future they will increase their accommodation capacity.

Another aspect is related to the connection of the guest houses to the main utilities - water, sewage, natural gases (Fig. 2).

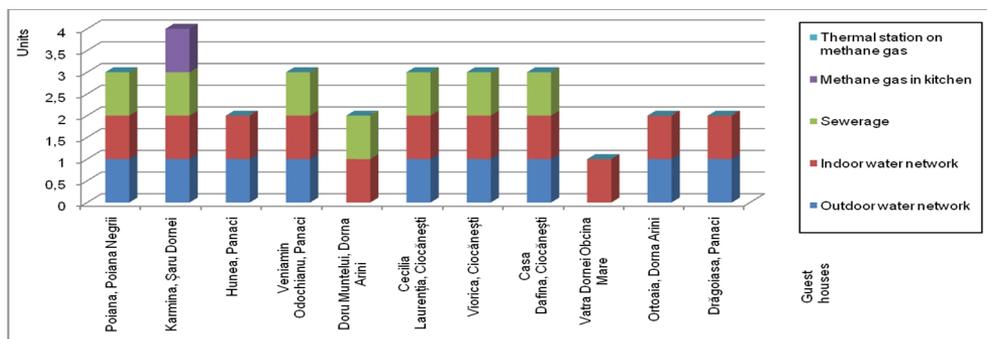


Fig. 2. Connection of agrotourist accommodation to main utilities

As a result of data processing, all guest houses are connected to running water inside and outside, two-thirds have sewerage connections, a single guesthouse has methane gas in the kitchen (Karmina guest house) [37].

A particularly important question concerns the offer of agrotourism services (Fig. 3).

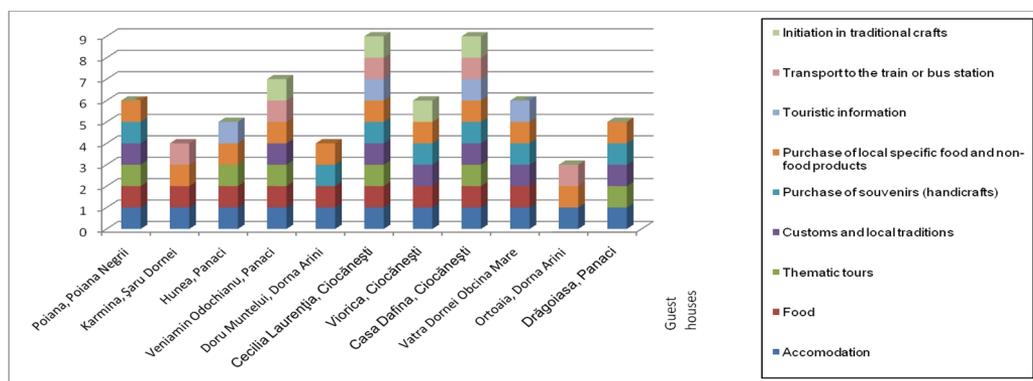


Fig. 3. Agrotourism services offer

Of the 11 analyzed guest houses, only two (Casa Dafina and Cecilia Laurenția) offer all the presented services. Instead, all guest houses offer tourists the opportunity to purchase local food and non-food items, as well as car transport at the train or bus station. All guest houses can also benefit from thematic tours, local customs and traditions, as well as the purchase of handicraft articles.

Only four guest houses opted for initiation in traditional crafts and only seven for tourist information. Compared to the existing situation, we consider that in the future there are great opportunities to expand the range of agrotourism services, which will give potential tourists the opportunity to choose the guest house that offers all the desired and high-quality services so that in the next few years they can program their stay at the same agrotouristic unit. Another question was addressed to groups of tourists on tours or on certain anniversary events: "What is the ability to serve meals at the same time?" (Fig. 4).

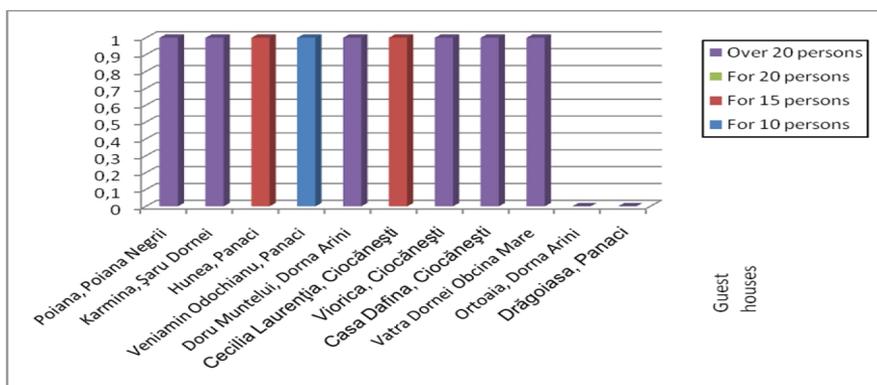


Fig. 4. The ability to serve tourists meals at the same time

From the analyzed data, the following situation resulted:

- Only six guest houses can serve meals at the same time - over 25 persons;
- Two other guest houses have a capacity for dining at the same time for 15 people and three of them can serve at the same time for 10 people. In this case, measures must be taken to increase the capacity of the guest houses in order to serve the tourists at the same time, to a larger number of people.

Agrotourism requires some of the food offered to tourists to be prepared within the guest house. That is why another question to the analyzed panel was: "What foods are prepared at the guest house?" (Fig. 5).

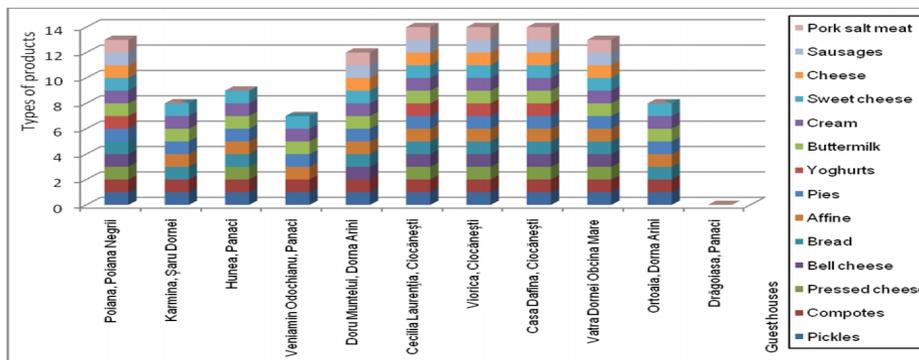


Fig. 5. Food prepared in agrotourism guest houses

A number of 14 products have been proposed. The analysis revealed that in the first place are the pickles, compotes and pies (81.25 - 87.50%), the second place - bread, buttermilk, cream, sweet cow cheese and affine (68.75 - 75.00%). The other products (bell cheese, pressed cheese, yoghurt, cheese, sausages and pork salt meat) occupy much lower shares (31.25 - 43.75%). It is also worth mentioning that Drăgoiasa boarding house - Panaci commune, is being supplied only from commerce and Cecilia, Lucreția, Viorica, Dafina House - Ciocănești commune, Poiana - Poiana Negrii commune, Dorul Muntei - Dorna Arini commune and Vatra Dornei - Obcina Mare - offer 12 to 14 products.

It can be appreciated that the products offered by the guest houses occupy a fairly high share, being able to increase the coverage of their own products in accordance with the requirements of the tourists [38].

Another question referred to "The area of agricultural land and the number of animals owned by the guest house" (Fig. 6).

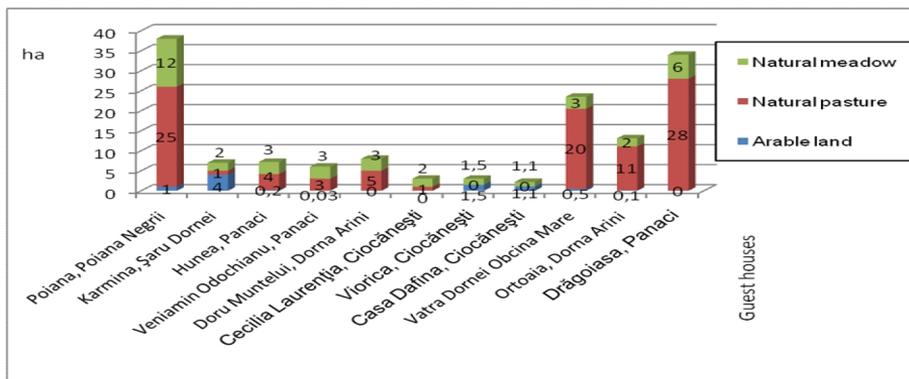


Fig. 6. Surfaces of agricultural land owned by agrotourist guest houses

After analyzing the data, it was found that the agricultural area owned by the 11 agrotouristic guest houses is 145.03 hectares, with the largest areas for Poiana, Dragoiasa, Vatra Dornei and Ortoaia. Approximately 2/3 of agricultural lands are natural pastures and 37.14% are natural hay fields, which mean that there are more feed resources for animal husbandry (Fig. 7).

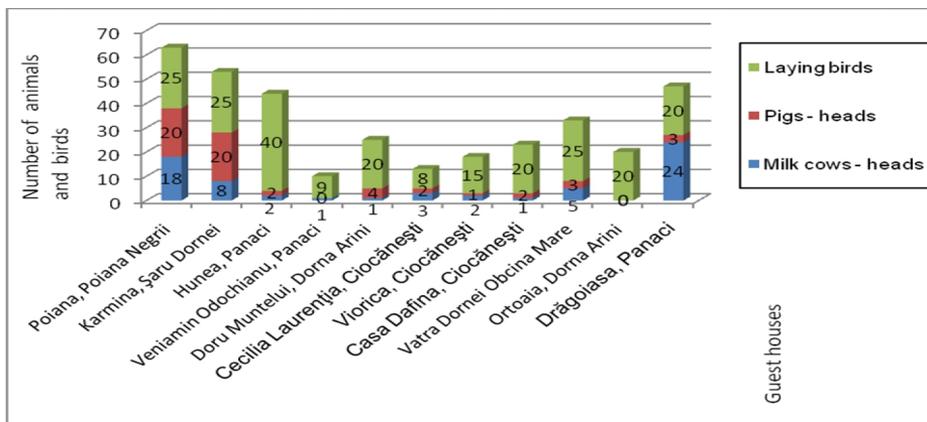


Fig. 7. Number of animals, by species

The number of animals is quite low: 65 dairy cows, 57 pigs in fattening and 227 laying hens. The largest amounts are owned by Poiana, Dragoiasa and Karmina. From the overall analysis, it results that there are large reserves for increasing the number of animals, which will contribute to the increase of the consumption of more meat and milk products demanded by tourists. Eight guest houses grow potatoes (4.08 ha), and the Karmina guesthouse also cultivates lucerne and clover.

Another question referred to "Improving living conditions and diversifying agrotourism services" (Fig. 8).

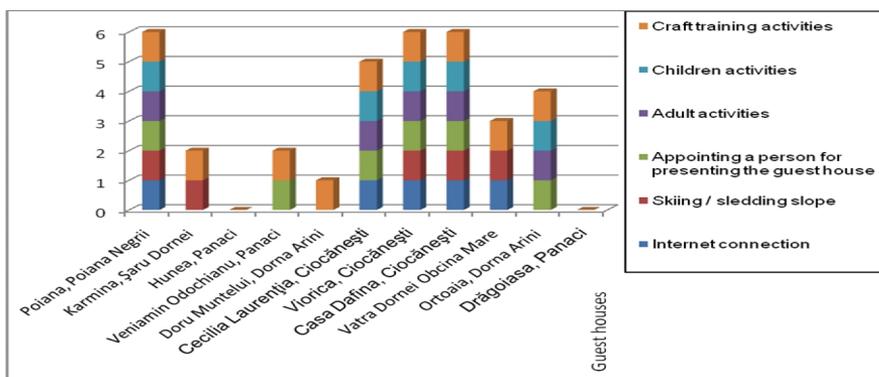


Fig. 8. Improving housing conditions and diversification of agrotouristic services

Regarding the six possibilities proposed by the authors, Poiana, Viorica and Dafina have opted for all the proposed options, while Doru Muntei guesthouse only opted for training-crafts activities.

An important factor for the knowledge of agrotouristic guest houses is represented by "The ways of promoting agrotourism guest houses and services" (Fig. 9).

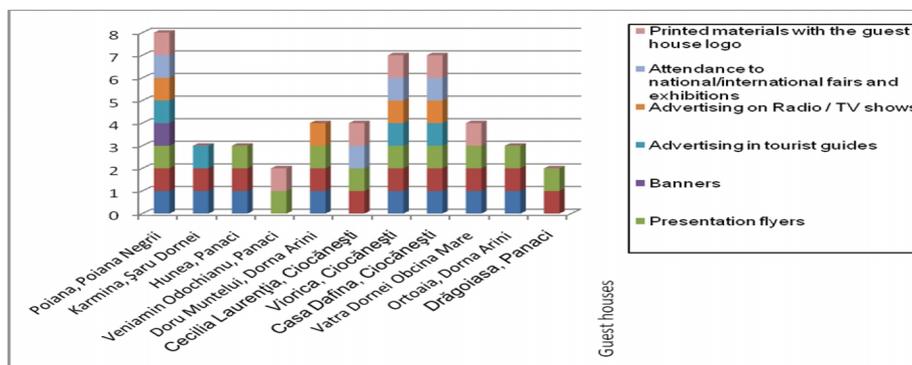


Fig. 9. Ways of promoting agrotouristic activities

The authors proposed eight ways to promote agrotourism activities: tourist agencies, web site, presentation leaflets, banners, advertising spots in tourist guides and Radio/TV shows, own stand at national and international fairs and exhibitions, various materials printed with the guest house logo.

Poiana and Viorica guest houses have opted for all the proposed options, compared to Veniamin Odochianu, which has opted only for promotion through presentation leaflets and various materials inscribed with the logo of the guest house, and Drăgoiasa has proposed to promote through the web page and presentation leaflets.

It has been noticed that, for the identification of the offered guest houses and agrotourism services, all of them should choose as many possibilities as possible according to the options of potential tourists [39]. To meet the demand of potential clients, one question referred to the "Methods of programming/booking of the stay at a specific agrotouristic unit" (Fig. 10).

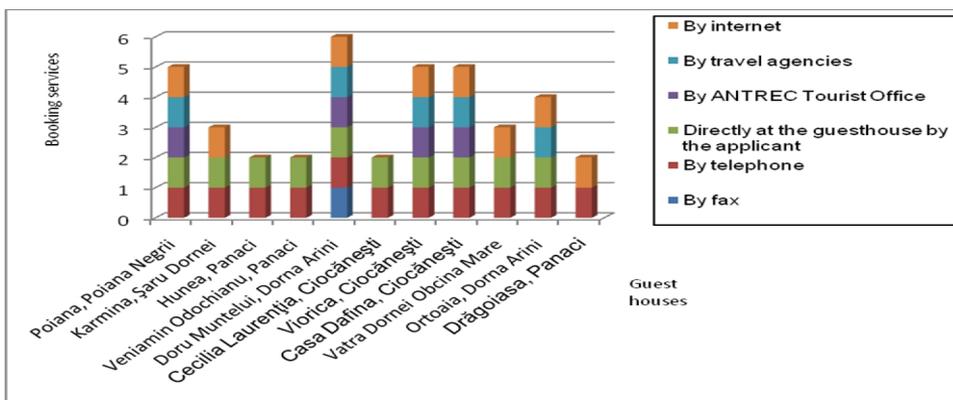


Fig. 10. Programming/booking of the stay at a specific agrotouristic unit

Six variants have been proposed. Most options were: by telephone, directly at the guesthouse by the applicant and via Internet, while for programming/booking by fax - only two guest houses, opposed to the "by ANTREC Tourist Office" for which four guest houses have opted. We suggest that there should be as many options as possible to access an agrotouristic guest house, in line with the reduction of the time spent on this activity.

Conclusions

Based on the data obtained in the field, regarding the representation of agro tourism in the Dornel Basin, the following conclusions can be drawn:

- The agrotouristic offer in the researched area presents a rather high index of diversification, due to the natural potential and the richness of the anthropic component, which contributes to the creation of a wide range of natural and anthropic touristic attractions.
- The accommodation and agrotourist services offer is made in the rural household, with the purpose of obtaining income, investing and developing complementary activities specific to agrotourism.
- The natural potential of Dorna Basin is an essential attraction factor, which offers complex possibilities for capitalizing on tourism and agrotourism.
- The research aimed to evaluate the possibilities of development of the agrotourist offer, using the statistical questionnaire survey method, which focused on the following aspects: accommodation capacity of tourists, connection of guest houses to basic utilities, diversification of agrotourism services, increase and diversification of food and non-food products prepared within the guest houses, agricultural land, planting and animal husbandry, ways of promoting pensions and agrotourism services, estimating the possibilities for development and diversification of agrotourism activities in the future.
- In order to attract tourist's off-season, it is necessary to launch various offers such as: organizing conferences, festive meals, anniversaries, folk festivals, sports competitions, etc.

References

- [1] I.N. Alecu, M. Constantin, **Agritourism and Agrotouristic Marketing, Romania**, CERES Publishing, Bucharest, 2006, pp. 184-186.

- [2] F. Arion, I. Mureșan, *Analysis of Professional Training in Agrotourism in Cluj County, Romania*, **Bulletin of U.S.A.M.V. Cluj-Napoca, Series Horticulture**, **66**(1-2), Cluj-Napoca, 2009, pp. 513-520.
- [3] I. Pincovschi, N. Neacsu, C. Modrojan, *The absorption of Lead, Copper, Chrome and Nickel Ions from waste waters in agricultural argillaceous soils, Romania*, **Revista de Chimie Bucharest**, **68**(4), Bucharest, 2017, pp. 635-638.
- [4] F. Bran, I. Istrate, V. Manole, **Agrotourism and Rural Tourism, Romania**, Economica Publishing, Bucharest, 1996.
- [5] C. Jenica, **Agrotourism, Romania**, Sitech Publishing, Craiova, 2008.
- [6] G. Ceccacci, **Agriturismo, Italy**, Ed. FAG, Milano, 1999.
- [7] A. Chiran, E. Gîndu, M. Ruje, R.V. Bacter, **Touristic marketing, Romania**, University of Oradea Publishing, Oradea, 2008.
- [8] A. Chiran, E. Gîndu, A.F. Jitoreanu, R.R. Florea, C.R. Vîntu, *Dorna Basin – major objective for development of tourism and agritourism in the north of Moldova – Part II, Oradea, Romania*, **Annals of the University of Oradea, Environment Protection, Fascicle, XIV/B**, Oradea, 2015, pp. 79-88.
- [9] A. Chiran, A.F. Jitoreanu, E. Gîndu, L. Ciornei, *Development of rural tourism and agrotourism in some european countries, Timisoara, Romania*, **Scientific Papers U.S.A.M.V.B. Timișoara, XVII**(1), Timisoara, 2016, pp. 225-234.
- [10] A. Chiran, E. Gîndu, A.F. Jitoreanu, R.R. Florea, C.R. Vîntu, L. Ciornei, *Efficiency opportunities for the agrotouristic activities in Bucovina (case study in Vama, Suceava county), Timisoara, Romania*, **Scientific Papers U.S.A.M.V.B. Timișoara, XVII**(1), Timisoara, 2016, pp. 235-244.
- [11] M. Ruge, R.V. Bacter, E. Gîndu, A. Chiran, *Aspects regarding the offer and promotion of tourism and agrotourism in the "Valea Iadului" area, Bihor County, in the context of integration into the EU, Iasi, Romania*, **Scientific Papers U.S.A.M.V. Iași, series Agronomy**, **49**, Iasi, 2006, pp. 292-301.
- [12] M. Ruge, R.V. Bacter, I. Chereji, *Sustainable tourism and agrotourism in the mountain area of Bihor's country, Timisoara, Romania*, **Scientific Papers U.S.A.M.V.B. Timișoara, Management agricole series**, Ed. Agroprint Timișoara, **X**(4), Timisoara, 2008, pp. 165-172.
- [13] D. Ungureanu, **Agrotourism, Development alternative of the mountain village. Vol. Romanian rural tourism. Actuality and Perspective, Iasi, Romania**, Ed. Performantica, Iasi, 2005.
- [14] D. Ungureanu, *Possibilities for development and promotion of agrotouristic activities, by maintaining and capitalizing on traditions, customs, local specificities and tourism potential in Ciocănești museum-commune - Suceava county, Iasi, Romania*, **Scientific Papers U.S.A.M.V. Iași, Series Agronomy**, **49**, Iasi, 2006, pp. 314-321.
- [15] C.R. Vîntu, A. Chiran, E. Gîndu, A.F. Jitoreanu, *Dorna Basin – major objective for development of tourism and agrotourism in the north of Moldova – Part I, Oradea, Romania*. **University of Oradea Annals, Environment protection fascicle, XIV/B.**, Oradea, 2015, pp. 495-502.
- [16] C.R. Vîntu, A. Chiran, E. Gîndu, A.F. Jitoreanu, G. Ungureanu, **Some aspects of the touristic and agrotouristic potential of Dorna Basin (Suceava County). Vol. XL – Romanian Rural Tourism in the context of sustainable development. Present and prospects, Iasi, Romania**, Ed. Performantica, Iași, 2016, pp. 169-183.
- [17] M. Vincze, **Dezvoltare regionala – Idei si practici, Cluj Napoca, Romania**. Ed. Presa Universitara Clujana, Cluj-Napoca, 2000.
- [18] M.Z. Haque, M.I.H. Reza, M.M. Alam, Z.U. Ahmed, M.W. Islam, *Discovery of a potential site for community-based sustainable ecotourism in the sundarbans reserve forests,*

- Bangladesh, International Journal of Conservation Science*, 7(2), Bangladesh, 2016, pp. 553-566.
- [19] I. Iosim, G. Popescu, *Conditions for developing and promoting agrotourism in Romania, Bulgaria, SGEM 2016, BK 2: Political Sciences, Law, Finance, Economics and Tourism Conference Proceedings*, 5, Sofia, 2016, pp. 163 – 167.
- [20] R. Sharpley, *Rural tourism and the challenge of tourism diversification: the case of Cyprus, England, Tourism Management*, 23(3), Northumberland, 2002, pp. 233-244.
- [21] T. Kizos, T. Iosifides, *The contradictions of agrotourism development in Greece: evidence from three case studies, England, Routledge Journals*, 12(1), Oxfordshire, 2007, pp. 59-77.
- [22] D. Skuras, A. Petrou, G. Clark, *Demand for rural tourism: the effects of quality and information, England, Blackwell Publishing*, 35(2), Oxon, 2006, pp. 183-192.
- [23] J.M. Hernandez-Mogollon, A.M. Campon-Cerro, F. Leco-Berrocal, A. Perez-Diaz, **Agricultural Diversification and the Sustainability of Agricultural Systems: Possibilities for the Development of Agrotourism, Romania**, *Environmental Engineering and Management Journal*, 10(12), Iasi, 2011, pp. 1911-1921
- [24] F. Leco, A. Perez, J.M. Hernandez-Mogollon, A.M. Campon-Cerro, *Rural tourists and their attitudes and motivations towards the practice of environmental activities such as agrotourism, Iran, International Journal of Environmental Research*, 7(1), Tehran, 2010, pp. 255-264.
- [25] J.M. Hernandez-Mogollon, A.M. Campon-Cerro, H. Alves, *Authenticity in environmental high-quality destinations: a relevant factor for green tourism demand, Romania, Environmental Engineering and Management Journal*, 12(10), Iasi, 2013, pp. 1961-1970.
- [26] K. Ryglova, *Limiting factors in the field of business activities in rural tourism, Czech Republic, Agricultural Economics-Zemedelska Ekonomika*, 53(9), Prague, 2007, pp. 421-431.
- [27] K. Brscic, *The impact of agrotourism on agricultural production, Journal of Central European Agriculture*, Croatia, 7(3), 2006, pp. 559-563.
- [28] M. Camino, S. Cortez, A. Cerezo, M. Altrichter, *Wildlife conservation, perceptions of different co-existing culture, Romania, International Journal of Conservation Science*, 7(1), Iasi, 2016, pp. 109-122.
- [29] E. Balliana, G. Ricci, C. Pesce, E. Zendri, *Assesing the value of green conservation for cultural heritage: positive and critical aspects of already available methodologies, Romania, International Journal of Conservation Science*, 7(1), Iasi, 2016, pp. 185-202.
- [30] O.E. Hapciuc, G. Romanescu, I. Minea, M. Iosub, A. Enea, I. Sandu, *Flood susceptibility analysis of the cultural heritage in the Sucevita catchment, Romania, International Journal of Conservation Science*, 7(2), Iasi, 2016, pp. 501-510.
- [31] I.C.A. Sandu, P. Spiridon, I. Sandu, *Current studies and approaches in the field of cultural heritage conservation science. Harmonising the terminology in an interdisciplinary context, Romania, International Journal of Conservation Science*, 7(3), Iasi, 2016, pp. 591-606.
- [32] P.V. Alfieri, R. Garcia, V. Rosato, M. V. Correa, *Biodegradation and biodeterioration of wooden heritage: role of fungal succession, Romania, International Journal of Conservation Science*, 7(3), Iasi, 2016, pp. 607-614.
- [33] G. Romanescu, *Tourist exploitation of archaeological sites in the Danube Delta biosphere reserve area, Romania, International Journal of Conservation Science*, 7(3), Iasi, 2016, pp. 683-690.
- [34] M. Singh, A.K. Sinha, P. Singh, *Maintaining the biodiversity of informal protected areas: a collaborative conservational approach, Romania, International Journal of Conservation Science*, 5(1), Iasi, 2014, pp. 107-116.

- [35] R. Sandu, G. Iorga, E. Bacalum, V. Paun, *Cloud reflectivity and autoconversion rate: sensitivity to organic compounds for different aerosol types, Romania*, **Revista de Chimie**, Bucharest, **58**(2), Bucharest, 2007, pp. 171-178.
- [36] S.G. Muntean, G. Simu, P. Sfarloaga, C. Bologa, *Study of a trisazo direct dye adsorption on wood fibre using a comparison of different adsorption isotherms, Romania*, **Revista de Chimie**, Bucharest, **61**(1), Bucharest, 2010, pp. 70-73.
- [37] L. Prioteasa, M. Prodana, M. Buzoianu, I. Demetrescu, *Determination by ICP-MS of heavy metals and other toxic elements in drinking water from several rural areas of Romania, Romania*, **Revista de Chimie**, Bucharest, **65**(8), Bucharest, 2015, pp. 925-928.
- [38] C. Staniloiu, C. Florescu, V. Popescu, *Current trends in the use of small wastewater treatment plant, Romania*, **Revista de Chimie**, Bucharest, **64**(12), Bucharest, 2013, pp. 1477-1480.
- [39] C. Purcarea, M. Dzugan, M. Wesolowska, A.M. Chis, G. Zagula, A.C. Teusdea, C. Puchalski, *A comparative study of metal content in selected Polish and Romania honey samples, Romania*, **Revista de Chimie**, Bucharest, **68**(6), Bucharest, 2017, pp. 1163-1169.

Received: February 16, 2016

Accepted: August 15, 2017