# DORNA BASIN - MAJOR OBJECTIVE FOR DEVELOPMENT OF TOURISM AND AGROTOURISM IN THE NORTH OF MOLDOVA

Vîntu Cătălin-Răzvan\*, Chiran Aurel\*, Gîndu Elena\*, Jităreanu Andy-Felix\*

\*University of Agricultural Sciences and Veterinary Medicine of Iaşi, 3 Mihail Sadoveanu Alley, 700490 Iaşi, Romania, e-mail: achiran@uaiasi.ro

#### **PART I**

#### Abstract

Agrotourism is specific for natural areas, connecting with rural touristic areas and, at the same time, a solution to highlight the potential of rural households by exploiting the possibilities of accommodation for receiving guests and providing services for short periods for relaxation, rest and recreational activities, therapeutic cures, but also for business, studies and arts and crafts documentation, meeting a particular hobby, etc., all of these achieved by carrying out activities within or outside rural households (Miron Mihaela, 1996; Bran Florina et al., 1996; Chiran A. et al., 2008; Czosz I., 1996; Ghereş Marilena, 2003; Rey R., 1999; Ungureanu D., 2005).

If we analyze agrotourism, we find that it is a particular form of tourism, more comprehensive, which includes both tourism activities themselves, but also economic activities such as agriculture (production, processing and marketing of finished products) made in rural households.

For tourism and agrotourism development in the north of Moldova, Dorna basin was taken in study, as a representative place in this area.

The agrotourism area, which combines all the local attractions, stirs interest in supporting village infrastructure improvement, strengthen the spiritual life of the Romanian village, creating public service homogenization promoter, at least in urban areas.

Key words: tourism, mountain agrotourism, Dorna basin

## INTRODUCTION

The agrotourism economic system can be analyzed as an "open cybernetic system", which is influenced by and influences the external environment (Fig.1):

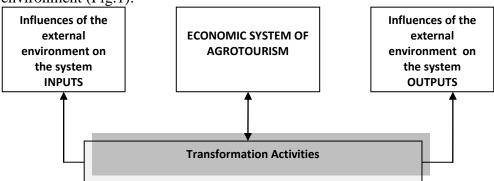


Fig. 1. The cybernetic agrotourism system (after Alecu I.N. and Constantin M., 2006)

**Agrotourism** can be an important source of revenue growth by combining various tourist services with agricultural activities.

The agrotourism market is subject to the same rules that generally apply to the tourist market, with some peculiarities that manifest at agrotourism level. In most cases, tourism needs satisfaction combines the consumption of integrated agrotourism products with the purchase of other products and services related thereto.

The agrotourism services market itself and the product market may be in a **relation of completion** (when the goods contained in the agrotourism product differ from those of trade - complementary or insufficient), **competition** (goods are identical or replace each other) or **indifference** (no influence on each other).

Rural and agro tourism product consists of main components (accommodation, food and transport) and auxiliary components (balneotherapy, leisure, sports, education, etc.).

The choice of destinations and tourism product is influenced by several factors (Gerasim T. and Gerasim D., 1999):

- Natural - geographical location, terrain, vegetation, fauna and climate; Culture - language, folklore, religion, art, politics, etc; Human - mentality and hospitality of local people, local government attitude to tourists; Infrastructure - utilities (telecommunications, energy and water supply, sewerage), other services such as the transportation, banking etc; Tourist facilities - transport, accommodation units, catering, sport, recreation, information etc; Auxiliary services - leisure (sports and popular activities), excursions, medical spa cures, herbal baths and tea baths, from local flora, participation in hunting and fishing parties, renting / selling the necessary equipment for the mentioned activities.

### MATERIAL AND METHOD

To highlight the influence of a certain area on tourism and agrotourism, the authors referred to a case study, represented by Dorna basin, in the North-East of Romania. They have analyzed several indicators related to natural conditions, but also economic and financial, tourist and agro-tourist guesthouses and services, correlations of the rural tourism and agrotourism with the external environment.

The main focus was on analyzing conditions of soil and climate and numerous attractions offered by the Dorna basin.

# RESULTS AND DISCUSSION

In Europe, in the last decades, the effectiveness of alternative forms of tourism (unconventional) development as agrotourism, guesthouse tourism,

green tourism has been demonstrated, also as a result of multifunctional roles and environmental impact on rural areas (Tab. 1) (Alecu I.N. and Constantin M., 2006; Pascariu Gabriela - Carmen, 1996; Ungureanu D., 2005):

Table 1
Correlations of rural tourism and agrotourism with the external environment

Correlations of rural tourism and agrotourism with the external environment					
Subject	Connection to tourism	Connection to major			
		ecological issues			
A – Impact on the environment					
Hunting and fishing	Increasing local tourism activity	Biodiversity loss			
consumption	Increasing the number of vehicles used due to	Greenhouse effect			
		Destruction of the ozone layer			
		Air pollution			
	Increased consumption of scarce resources during	Resource crisis			
activities	tourist seasons				
	Construction of accommodation, access roads,	Biodiversity loss			
change	other infrastructure	Soil erosion			
Emissions of gases in the	Increased tourism traffic in designated areas leads	Air pollution			
atmosphere, water, soil	to increase of the quantity of emitted pollutants	Water pollution			
1	1 , 1	Soil contamination			
I	B – Changing the quality features of the environme	nt			
Modifications of biological resources	Activities like hunting, fishing, land use and	Biodiversity loss			
	environmental restructuring can cause aggression	Soil contamination			
lesources	on ecosystems and species	Son containmation			
Air pollution	Transport arough will lead to increasing quantities	Greenhouse effect			
	Transport growth will lead to increasing quantities of air pollutants	Destruction of the ozone layer			
	•	Air pollution			
Quality of water	Increasing numbers of people in an area can lead to	Water pollution			
	sewer infiltrations				
Quality of soil	Increasing number of people in one area can				
	increase the amount of pollutants and erosion, by	Soil contamination and erosion			
	raising new construction				
The health of the population	Noise pollution and also that caused by gas	Noise pollution			
and ecological disasters	emissions cause a worsening health, destruction of	Air pollution			
and ecological disasters	buildings of cultural value	Air pollution			
	C – Environmental protection actions				
	Supplementing income from hunting and fishin	g Biodiversity loss			
Mi	induces a careful rationalization of resources	Soil contamination and			
Managing resources	Flora and fauna from tourist and agrotourism area	s erosion			
	can arouse high interest	Resource crisis			
Tracking and control of	Monitoring resources can be imposed by th	e Air and water pollution			
pollution	tourists'needs to enjoy quality water and air	Noise pollution			
	D – Climatic conditions and biological resources				
	Soil compaction and excessive hunting will hav				
Flora and fauna	negative effects, but can also lead to bette				
	management				
Hydrological system	D-i	Soil erosion			
	Rainfall may affect tourism demand	Resources crisis			
Atmospheric system	Temperature and air pollution can influence tourisr	n A4			
	demand	Atmospheric pollution			
Lithospheric system	Soil type may influence tourism demand	Soil erosion			
Ecosystems	Forests, swamps, mountains can increase / reduc	e Resources crisis			
	tourism demand	Biodiversity loss			
1					

Source: edited after Alecu I.N. and Constantin M., 2006

**Rural tourism and agrotourism** should be done as a balancing element between the local community, which fulfills the role of host, bidders and tourism industry. **Agrotourism**, although it is a newer concept

appeared on the tourism market, takes over much of the role of tourism and translates it into an area with great tourism potential, namely rural areas. At national level, there are many villages that have natural and anthropogenic conditions conducive to practicing various forms of tourism. In this regard, over time, a favorable environment for practicing this activity has been created, due to several factors: natural environment with picturesque specific, welcoming farms with hospitable people who have a specific artistic and cultural tradition of different areas or villages.

From the economic point of view, this area is unfavorable, primarily for its residents, who are obliged to value goods produced by their own means in the city, where they also have to find a job, because with the decline in rural activities (predominantly agricultural), the possibilities to earn an income are quite low.

Developing agrotourism leads to forecasting of motivations to both meet the need for rest and recreation of active urban population and the local resources capitalization that can meet tourists' demands. It follows that agrotourism is a plausible, feasible chance to increase the life of the local population and economy overall.

The offer of accommodation and agrotourism services is reflected in the homestead, which is the promoter of the motivation of the host to prepare and equip the inside and outside of the household in order to obtain an income, to invest and develop complementary activities to the initial concerns. Competition will underpin the competitiveness and increase the quality of their products and services to generate demand. Tourism demand is shifting towards accommodation, fresh food produced by small industry, craft, recreation, etc. Stimulating the ingenuity of the householder.

**Agrotourism area**, the place which combines all the local attractions, stirs interest in supporting village infrastructure improvement, strengthen the spiritual life of the Romanian village, creating public service promoter homogenization at least in urban areas. This can be achieved by:

- Establishing a long-term development strategy, linked to sector strategies (agriculture, environment);
- Implementation of the peculiarities and principles of sustainable development for each zone;
  - The chance to become a promoter for other businesses;
- Actively supporting traditional concerns (such as handicrafts), favoring trade in such products with beneficial effects for both tourists and the local population;
- Increasing the financial resources of the rural population through better use of organic products and other local resources;
- Improving quality of life and ensuring the continuity of cultural identities.

Dorna basin or Country of Dorna is located in Suceava county

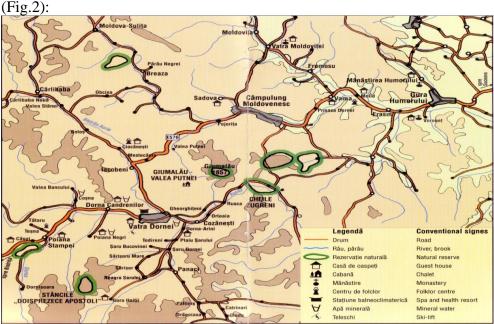


Fig. 2. Administrative-territorial location of Dorna Basin

It falls to the west of 25°5' and east of 25°30' east longitude, intersected parallel of 47°22' north latitude.

Dorna basin is enclosed by mountains: in the North, by the Suhard Mountains, in the N-E by the Giumalău Mountains, in the E-SE by Bistriţa Mountains, in the South by the Căliman Mountains and in the West by the Bârgău Mountains.

Given the density and depth of fragmentation, we can separate two major subunits: **Dorna basin**, extended far to Bârgaie, through Coșnei and Dornișoara valleys and **Neagra Șarului basin**, on the valley of the creek with the same name, both dominated by Căliman and Grințieș mountains. These are individual also because of the other components of the natural landscape. Dorna basin is linked to neighboring lowlands through passes. Thus, the connection with Transylvania is ensured by Tihuţa step (1,201 m), with Maramures by Prislop (1,416 m) and by Mestecăniş (1,099 m), with Moldova. Through available passes and hence the ways of communication we find: the railway passing from Moldova to Transylvania, respectively from Suceava to Cluj-Napoca and the national road network that links with Transylvania by E576 (DN17) Măgura - Vatra Dornei – Câmpulung.

Maramureș through DN18 to Sighetul Marmației, with Moldova by DN17A (Vatra Dornei – Rădăuți) and DN17B (Vatra Dornei – Crucea - Broșteni). Dorna basin, even though it is surrounded by mountains, is not an

isolated area, benefiting from a high accessibility level from the surrounding areas. From a climate perspective, Dorna basin is in a mountainous area with cool climate, with long periods of thermal inversions, particularly in winter, when the average temperatures drops below -6°C in January and during the summer, in July, do not exceed 14°C. Average annual rainfall is 600 mm, but the variation from one year to another is quite high. The basin is dominated by winds that blow from the SW, W and E, NE sectors, whose speed is generally low (rarely equals or exceeds 20 m/s).

The town of Vatra Dornei has been documented since the fifteenth century. It gradually evolved from a rural settlement to a well known spa. Only after 1850 its urban function is defined, with the mineral waters and peat mud capitalization. The town, which became a municipality a few years ago, has continued to represent a polarizing center of the entire basin. In tracing the basin boundary, an essential role is played by the land use. Thus, many towns were formed where there are arable lands (they occupy only 1% of the basin), mineral springs (such as Vatra Dornei, Şaru Dornei, Poiana Negri, Neagra Şarului, Negrişoara, Dorna Candrenilor, Poiana Stampa, Coşna) or important underground resources such as manganese, sulfur, slate (Şaru Dornei, Dealu Rusului, Iacobeni, Mestecăniş, Dornişoara).

**Mountain meadows** stimulated pastoral economy since ancient times, which was also an important factor for humanizing the basin, retention of links with the population of Transylvania and Moldova. Mountain meadows determined temporary houses, which climb to altitudes over 1,300 m. The whole region bears the imprint of pastoral swarming and scattering is so characteristic that it is very hard to pinpoint the villages from one another.

In its limits, the Country of Dorna includes 12 administrative units (10 communes: Dorna Arini, Dorna Candrenilor, Iacobeni, Panaci, Poaiana Stampei, Şaru Dornei, Crucea, Cârlibaba, Ciocaneşti, Coşna and a town: Broşteni), polarized in the basin of Vatra Dornei (became a municipality in 2000) (Tab. 2). Dorna basin is located in an area where soil and subsoil resources abound. Therefore, this basin has developed an economy focused on better use of key natural resources - forests, minerals, mineral waters, pastures and meadows. The vast forest basin was served by two major operating units and transport of timber: Iacobeni and Vatra Dornei, both dismantled by 1989. The basin is one of the most important mining regions of the country, manganese being the subject of mining from Şaru Dornei, Dealul Rusului, Dealul Boambei. Through their quality, the **mineral springs** from Vatra Dornei, Coşna and Poiana Negri have imposed themselves both in the country and abroad, brands like Dorna, Poiana Negri, Bucovina, enjoying national and international recognition and appreciation.

Administrative structure of the Dorna Basin

TOWN/COMMUNE	COMPONENT LOCALITIES	TOWN/COMMUNE	COMPONENT LOCALITIES
Municipality     of Vatra Dornei	Vatra Dornei	7. Com. Şaru Dornei	Neagra Şarului
	Argestru		Gura Haitii
	Roşu		Plaiu Şarului
	Todireni		Sărișor
2. Com. Dorna Arini	Cozănești		Sărișoru Mare
	Dorna Arini		Şaru Bucovinei
	Gheorghiţeni		Şaru Dornei
	Ortoaia	0 G I i i	Iacobeni
	Rusca	8. Com. Iacobeni	Mestecăniș
		9. Com. Ciocănești	Ciocănești
	Sunători		Botoş
3. Com. Dorna-Candrenilor	Dorna Candrenilor		Iedu
	Dealu Floreni	7	Ţibău
	Poiana Negrii	10. Com. Cîrlibaba	Cîrlibaba
4. Com. Coşna	Coșna		Cîrlibaba Nouă
	Podu Coșnei		Valea Stînei
	Românești	11. Com. Crucea	Chiril
	Teșna		Cojoci
	Valea Bancului		Crucea
5. Com. Panaci	Panaci		Satu Mare
	Catrinari	12. Town of Brosteni	Holda
	Coverca		Holdiţa
	Drăgoiasa		Broșteni
	Glodu		Neagra
	Păltiniș		Dîrmoxa
6. Com. Poiana Stampei	Poiana Stampei	]	Frasin
	Căsoi	7	Pietroasa
	Dornișoara	7	Cotîrgaşi
	Pilugani	1	Lungani
	Prăleni		ı
	Tătaru	1	
	Teșna	7	

Source: after primary records of the County Council of Suceava

# CONCLUSION

- 1. Agrotourism can be an important source of revenue growth by combining various tourist services with agricultural activities.
  - 2. The offer of accommodation and agrotourism services is reflectedin

the homested, which is the promoter of the motivation of the host to prepare and equip the inside and outside of the household in order to obtain an income, to invest and develop complementary activities to the initial concerns.

- 3. The agrotourism area, which combines all the local attractions, stirs interest in supporting village infrastructure improvement, strengthen the spiritual life of the Romanian village, creating public service homogenization promoter, at least in urban areas.
- 4. Dorna basin or Country of Dorna is located in Suceava county and is enclosed by mountains: in the North, by the Suhard Mountains, in the N-E by the Giumalău Mountains, in the E-SE by Bistriţa Mountains, in the South by the Căliman Mountains and in the West by the Bârgău Mountains; Dorna basin is not an isolated area, benefiting from a high accessibility level from the surrounding areas.
- 5. Dorna basin includes the towns of Vatra Dornei and Broşteni, 10 communes and 56 villages, located in an area where soil and subsoil riches abound, which allowed the development of a focus on better use of the main natural resources: forest, minerals, mineral waters, pastures and meadows.

#### REFERENCES

- Alecu I.N., M.Constantin, 2006, Agroturism si marketing agrar. Editura CERES, Bucuresti.
- 2. Benea Marius-Călin, 2005, Bazele turismului, Editura Mirton, Timisoara.
- 3. Bran Florina, I. Istrate, V. Manole, 1996, Agroturism si turism rural, Editura Economică, Bucuresti.
- 4. Ciurea I.V., D.Ungureanu, 2006, Studiul privind potentialul agroturistic al comunei Panaci, Lucrări Stiintifice USAMV Iasi, vol. 49, seria Agronomie.
- 5. Czosz I., 1996, Agroturismul montan, Editura Mirton, Timisoara.
- Drăgoi C., 2006 Turism si activităti sportive în spatiul montan, Editura EduSoft, Bacău.
- 7. Gherasim T., D. Gherasim, 1999, Marketing turistic, Editura Economică, Bucuresti.
- 8. Gheret Marinela, 2003, Agroturism., Editura Risoprint, Cluj-Napoca.
- 9. Minciu Rodica, 2004, Economia turismului, Editura Uranus, Bucuresti.
- 10. Miron Mihaela, 1996, Comportamentul consumatorului, Editura All, Bucuresti.
- 11. Pascariu Gabriela-Carmen, 1996, Turism international. Studii de caz si lucrări practice, Editura "Gheorghe Zane", Iasi.
- 12. Popa C., 2004, Oportunităti de dezvoltare a turismului rural si agroturismului în Regiunea de Nord-Est a României, Lucrări Stiintifice USAMV Iasi, vol. 47, seria Horticultură.
- 13. Rey R., 1999, Agroturismul o sansă pentru dezvoltarea agriculturii în zonele de munte, Editura PanEurope, Iasi.
- 14. Tigu Gabriela, 2002, Turismul montan, Editura Uranus, Bucuresti.
- 15. Ungureanu D., 2005, Agroturismul alternativă de dezvoltare a satului de munte, Editura Performantica, Iasi.
- 16. Ungureanu D., 2005, Rolul factorilor decizionali în dezvoltarea durabilă a spatiului rural-montan, Editura Performantica, Iasi.