

SOCIO-ECONOMIC ANALYSIS OF FÂRDEA COMMUNE, TIMIȘ COUNTY, ROMANIA

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Abstract

The authors of this paper carried out a socio-economic analysis of Fârdea commune in Timiș County, Romania. The main research methods used are the multicriterial analysis of the rural area and the SWOT analysis. With their help, the authors aimed to highlight the natural potential of this area and to identify the problems they face to find solutions to solve them. In the paper, the authors present an analysis of natural, social, and economic resources. Currently, the economy of the commune relies on agriculture; public infrastructure and services are well developed, including schools, medical units, banks, and transport services. The population of the commune is relatively small and, generally, aging. The paper ends with the main conclusions resulting from the analysis.

Keywords: analysis, commune, development, potential, rural

INTRODUCTION

Romania has an important development potential, which is insufficiently used. The rural areas are representative for our country, with an area of 207,522 km², i.e., 87.1% of the total Romanian area of 238,398 km². [3]

The study of literature in the field shows there is, so far a unique, unanimously accepted definition for rural areas. Perceptions about what should (and what should not) be the rural area and what its basic characteristics are varied in time and space. Thus, the definition of the rural area differs from one country to another depending on the concrete conditions of each state. In France, the rural area is a territory with poor density of the population, with small and medium settlements, where agricultural production predominates and the elements of the area are in pure state; in Belgium, it is represented by the national territory minus urban areas, i.e., what constitutes localities and industrial activities; in Germany, it is made up of those territories that are found outside of high-density areas. [5]

The best known definition of the rural area, at European level, is found in the Recommendation no. 1296/1996 of the Parliamentary Assembly of the Council of Europe on the European Charter of the rural area: "the phrase <rural area> considers an interior area, including villages and small towns, in which most of the lands are used for agriculture, forestry, aquaculture and fishing; the economic and cultural activities of the inhabitants of these areas, the arrangements of non-urban areas for leisure and fun, and other uses". [1, 2]

In this paper, the authors present a socio-economic analysis of Fârdea commune, starting with the presentation of the main physical-geographical aspects of the locality, of an analysis of demographic resources, as well as of the economic activities in the locality, aspects regarding homes and housing, the infrastructure, an analysis of socio-cultural resources and, based on this analysis, a final S.W.O.T. analysis.

	1. Physical and geographical features	
6. Social aspects 7. Ecology	SOCIO-ECONOMIC POTENTIAL	2. Human capital 3. Economic activities
	4. Housing 5. Technical equipment	

Figure 1 Criteria defining the potential of socio-economic development of rural areas

MATERIALS AND METHODS

The main methods in carrying out this study are observation, analysis, synthesis, and data processing and interpretation. The direct observation method is the one in the field, and

the indirect one was used in the study of bibliographic material and scientific data. The primary data were provided by the National Institute of Statistics. In addition, the analysis of the rural area was carried out with the help of

criteria or multicriterial analysis and of the S.W.O.T. analysis.

RESULTS AND DISCUSSION

The first documentary attestation of Fârdea commune dates from 1361 as one of the most important medieval settlements in Banat, within an old Wallachian district. In the 14th-15th

centuries, it was called *Tvrđ*, which comes from *Furd*, a person's name mentioned in 1291. [6]

• Geographical location of Fârdea commune

Fârdea commune is located in the east of Timiș County at the foot of the Poiana Ruscăi Mountains. [18]



Figure 2 Location of Fârdea commune in Timiș County

Source: [7, 8]

Fârdea commune is located 40 km from Lugoj and 90 km from Timișoara, being in the sphere of influence of the town of Făget at a distance of 18 km, due to its geographical position and administrative jurisdiction.

Fârdea commune includes seven villages: Fârdea village – which is also the seat of the commune, Gladna Montană, Gladna Română, Zolt, Mitnicu Mic, Drăgșinești, and Hăuzești – which are located between 2 and 10 km from Fârdea commune. [7]

• Natural framework of Fârdea commune

The **relief** of the commune is hilly and mountainous, part of the area of Lugojuului Hills and of the Poiana Ruscăi Mountains. It looks like a huge amphitheatre descending from the edges of the commune to the central depression valleys with some steep hills in the southeast and some more gentle ones in the north-western blending harmoniously. There are, thus, level differences between the extreme heights of 427 m (Pohia Peak) and 180 m quota at the basis of the accumulation lake. [9]

The **climate** of the territory is specific to the western area of Romania, with a complex morphoclimatic interference (mountain, Piedmont, and meadow) where the solar energy is distributed differently, and the circulation of western and north-western air masses gives

certain particularities that can be regrouped from the mountain area to the meadow area. The average annual temperature oscillates between 5°C and 21°C. The winds that characterize the climate of the commune are: the south-west dry wind and the west wind determined by the Azores anticyclone of the Azores, a warm and wet wind. [10]

The wild **flora** and **fauna** are diversified and specific to the hill/mountain interference area in the east of Timiș County. In the area, there are wild animals such as wild boar, deer, roe deer, rabbit, wolf, wild cat, lynx, squirrel, fox, and European polecat. The birds specific to the area are hawk, common buzzard, owl, crow, pheasant, and quail. Forest bordering pastures are covered 50% with various shrubs and trees – birch, oak, poplar, hawthorn, and blackberry and mulberry are present on all pastures in the region. The shrub and herbaceous layers are represented by the red fescue, moss, dead nettle, red sorrel, and wild garlic. [11]

• Demographic resources of Fârdea commune

According to statistical data, the population of Fârdea commune decreased between 1992-2022 from 2,241 inhabitants to 1,643 inhabitants.

Table 1

Evolution of Fârdea commune's population in 1992-2022

Year	1992	1995	2000	2005	2010	2015	2020	2021	2022
People	2,241	2,112	1,986	1,960	1,872	1,760	1,626	1,626	1,643

Source: after Tempo online, 2023 [4]

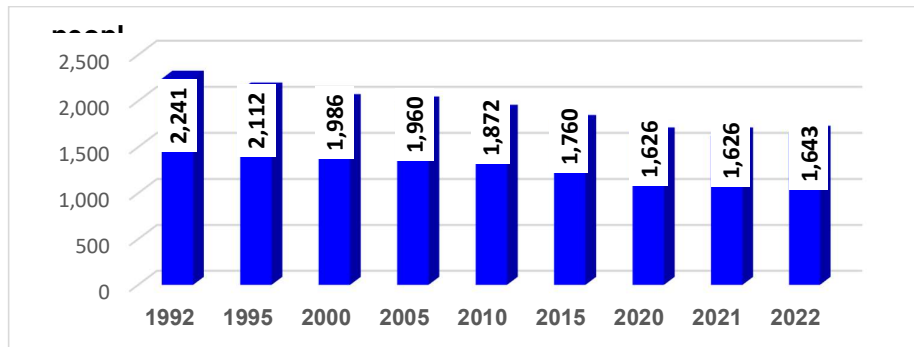


Figure 3 Evolution of Fârdea commune's population in 1992-2022

Regarding the **sex structure** of the population of the locality, in 2022, it was

relatively balanced: of the 1,643 people, 833 were men and 830 were women.

Table 2

Structure of Fârdea commune population per sexes

Year	1992	2022
Total	2,241	1,643
Men	1,127	813
Women	1,114	830

Source: after Tempo online, 2023 [4]

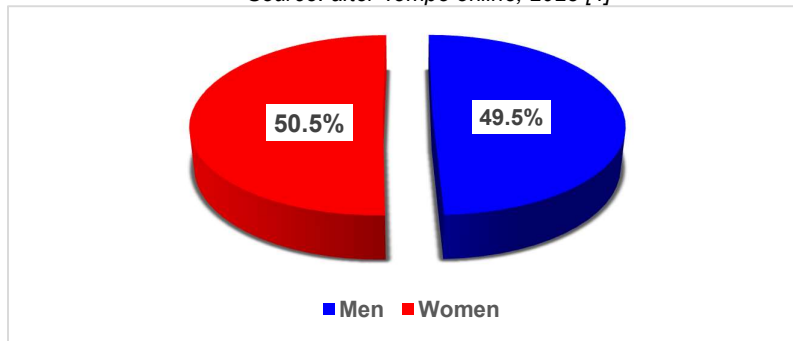


Figure 4 Structure of Fârdea commune population per sexes

Regarding the **age groups**, in 2022, people under 40 shared only 40.6% of the total population, while the population 40+ shared

59.4%, which points to an aging population in Fârdea

Table 3

Structure of Fârdea commune population by age groups, 2022

Age (years)	People	
	N	%
Total	1643	100
0-4	57	11.6
5-9	54	
10-14	80	
15-19	81	
20-24	91	
25-29	96	29.0
30-34	101	
35-39	107	
40-44	116	
45-49	150	
50-54	155	36.6
55-59	81	
60-64	100	
65-69	119	
70-74	100	
75-79	72	22.8
80-84	57	
85+	26	

Source: after Tempo online, 2023 [4]

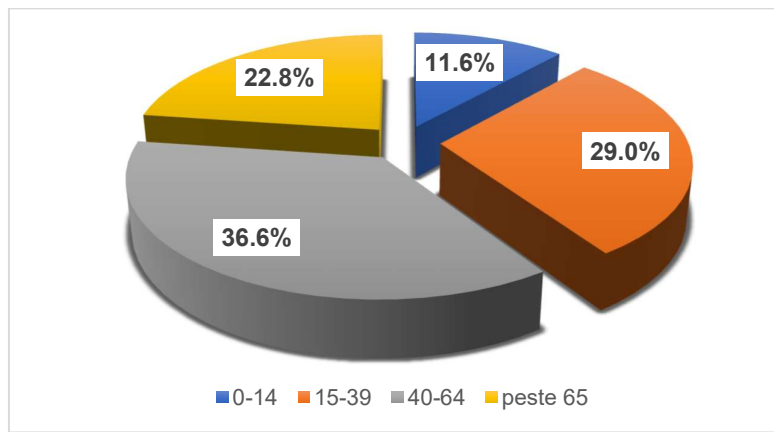


Figure 5 Structure of Fârdea commune population by age groups, 2022

Ethnic structure. Most of the inhabitants of Fârdea commune are Romanians - 94.23%, with a minority of Roma 1.49%, while 2.97% of the population is represented by other unknown ethnic groups, and 1.31% are of another ethnicity.

Religious structure. In Fârdea commune, predominate Orthodox - 85.43% of the total population, 5.54% Pentecostals, 5.26% Baptists, and the rest have other unknown religions (2.79%) or another religion (0.8%). [7]

Ethnic structure of Fârdea commune - Romanians, Roma, Unknown, Other

Confessional structure of Fârdea commune - Orthodox, Pentecostals, Baptists, Unknown, Other

Figure 2. Ethnic and religious structure of the population of Fârdea commune

The **natural population growth** is determined by the number of live births (birth rate) and the number of deaths (death rate) within a certain period.

Table 4

Evolution of natural population growth in Fârdea commune (1992-2022)

Year	1992	1995	2000	2005	2010	2015	2020	2021
Birth rate	15	15	16	14	11	11	7	11
Death rate	36	36	35	42	30	25	32	23
Natural growth	-21	-21	-19	-28	-19	-14	-25	-12

Source: after Tempo online, 2023 [4]

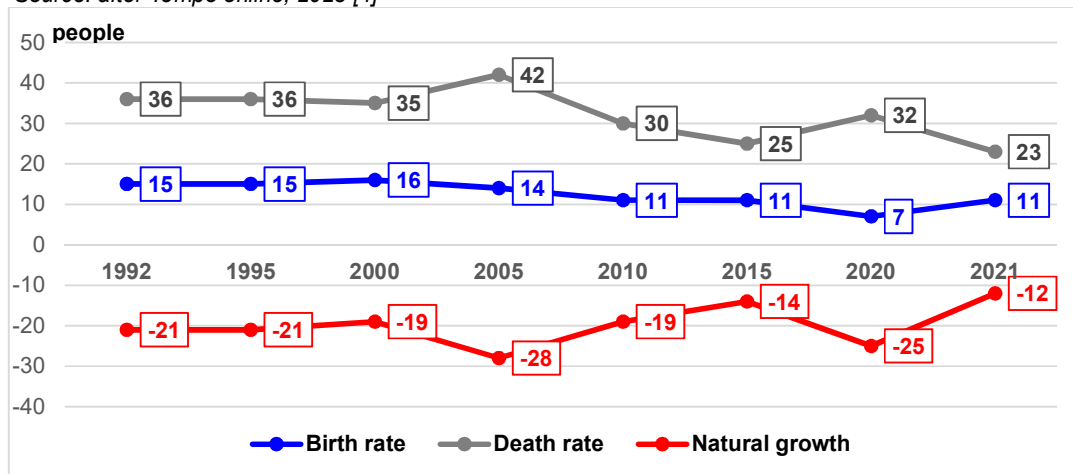


Figure 6 Evolution of natural population growth in Fârdea commune (1992-2022)

Table 4 presents the evolution of the natural population growth of Fârdea commune: there was a marked decrease in the number of new-borns from 15 in 1992 to 7 in 2020 with a slight increase in 2021 (11 new-borns); the number of deaths, even if it decreased,

maintained at a high level, thus resulting in a negative natural population growth.

• **Economy**

The resources on which the economic potential of the commune relies are arable land, pastures, meadows, forests, and animal and vegetable products.

The total area of the commune is 13,106 (4,695 ha) and the non-agricultural one 64.2% (8,411 ha), of which the agricultural area shares 35.8% (8,411 ha).

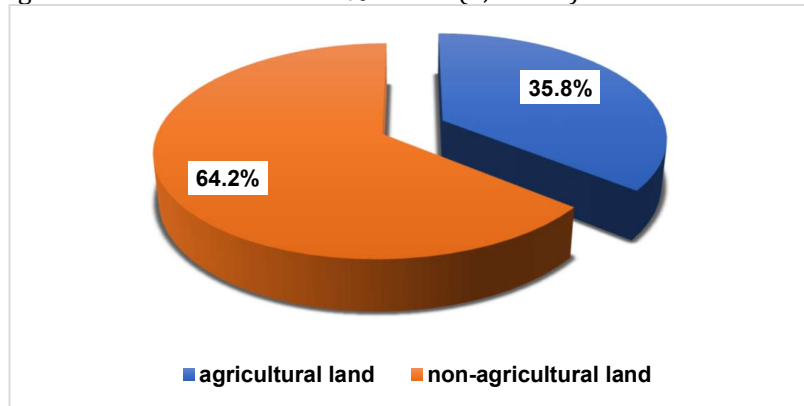


Figure 7 Total area of the commune by categories of use

Table 5

Use category	Area	
	ha	%
TOTAL	13,106	-
Total agricultural land	4,695	100.0
Arable	1,476	31.4
Pastures	2,417	51.5
Hay-making fields	757	16.1
Orchards and fruit-tree nurseries	45	1.0
Total non-agricultural land	8,411	100.0
Forests and other forest vegetation	7,726	91.8
Watercourses, pools	426	5.1
Constructions	94	1.1
Communication routs and railways	150	1.8
Degraded an unproductive lands	15	0.2

Source: after Tempo online, 2023 [4]

Regarding the structure of the agricultural land by categories of use, the relief of the commune being hilly and mountainous, the situation is as follows: the highest share is held

by pastures (51.5%) and hay-making fields (16.1%), while arable areas share only 31.4% and orchards only 1%.

Table 6

Crop	Area (ha)	Production (t)
Wheat and rye	160	480
Grain maize	427	1,594
Potato	80	920
Vegetables	50	309

Source: after Tempo online, 2023 [4]

Table 7 presents livestock and the production obtained in the main products.

Table 7

Livestock		Production	
Species	N		
Cattle	603	Live weight of livestock to be slaughtered for consumption	Live weight (t)
Pigs	1425	Cow ad buffalo milk (including milk for the calves)	Hectolitres (100 l)
Sheep	910	Wool	Kg
Poultry	13,300	Eggs	Thousand pieces

Source: after Tempo online, 2023 [4]

Regarding the tourist activity, the main tourist objectives in the area of Fârdea commune are:

- Marked routes: Fârdea commune – Brăiul Mare – Cabana “Căpriorul”;
- Mountain tourist routes: Padeş Peak – the springs of Bega;
- Lake Surduc;
- The monastery “Assumption of the Virgin Mary”;
- The wooden church in Zolt. [17]

LAKE FÂRDEA or the name under which it is more well-known, **LAKE SURDUC**, is the largest lake in Timiș County; it is an accumulation lake providing drinking water for the Timișoara area through the Bega canal, defence against floods and, of course, tourist opportunities as a very attractive recreational area in Timiș County, insufficiently promoted and valued. Lake Surduc is within the radius of Fârdea commune, the dam that determined its formation starting to be erected in 1972. The Surduc accumulation reached almost 25 million m³ of water, but it was designed to accumulate a volume of 51 million m³. With an area of 460 ha, Lake Surduc is the largest lake in Timiș County. The water of the lake does not freeze, which creates the necessary conditions for the winter survival of thousands of water birds.

The **WOODEN CHURCH IN ZLOT** was built in the 18th century. The church has the dedication of “The Holy Apostles Peter and Paul” (June 29). It is made of oak beams and covered with shingle, and the foundation is made of stone. The walls, worked manually, are joined by hatches and wooden nails, and are not plastered on the outside. Inside, the walls and the vault are fully painted in the technique specific to the area – tempera directly on the wood surface. The painting was completed in 1781 by Teodor

Zugravul and Atanasie from Lugoj. In the entrance hall, there is the portrait of the founder, Petru Obiada, a prominent Banat peasant, dressed in a holiday suit.

There are also other tourist attractions around, locations that can be important tourist objectives:

- **LIMAN VALLEY** – one of the most picturesque tourist areas of Timiș County;
- **LUNCANI** – a locality of a scattered type, with Romanian specific traditional costume and traditional architecture: in the locality, there is a beautiful sector of gorges, rapids, waterfalls, as well as numerous karst phenomena, grottos, and caves;
- **RUȘCHIȚA** – one of the important and traditional mining centres in the Poiana Ruscăi Mountains, known for exports of lead ore, zinc and iron, but especially for white marble: near the marble career, at the place called “Seven springs”, is the “Tourist monument”, one of the oldest tourist monuments in the country, dating back to 1883.
- **BALTA CALDĂ** – whose name comes from the carbonated water that retains a constant temperature of 19°C, which is found in a circular basin fuelled by a hypothermal spring: in this beautiful area, at the initiative of Patriarch Miron Cristea, the “Izvorul Miron” Monastery was erected;
- **PIETROASA** – owns a unique cave due to a colour dominant called “Pietroasa blue” by speleologists; the locality is also famous for its Romanian traditional costume.

The area of Fârdea commune benefits from a high tourist potential, but there are infrastructure issues especially with the small number of structures and of tourist accommodation pr structure (Table 8).

Table 8

Year	1990		2015		2020		2021		2022	
	Units	Places	Units	Places	Units	Places	Units	Places	Units	Places
Total	1	188	1	32	3	118	4	106	3	94
Hostels	-	-	-	-	1	66	1	66	1	66
Tourist cottages	-	-	1	32	-	-	1	12	-	-
Tourist houses	-	-	-	-	1	44	1	20	1	20
Agri-tourism guesthouses	-	-	-	-	1	8	1	8	1	8

Source: after Tempo online, 2023 [4]

• **Homes and Housing.** Regarding the evolution of the homes in Fârdea commune in 1990-2021, it was found that their number

increased from 736 in 1990 to 1,159 in 2021, including their living area.

Table 9

	1990	1995	2000	2005	2010	2020	2021
Total							
Homes (N)	736	661	1,013	1,063	1,149	1,154	1,159
Living area (m ²)	27,968	28,932	28,932	43,418	46,924	56,803	57,129

Source: after Tempo online, 2023 [4]

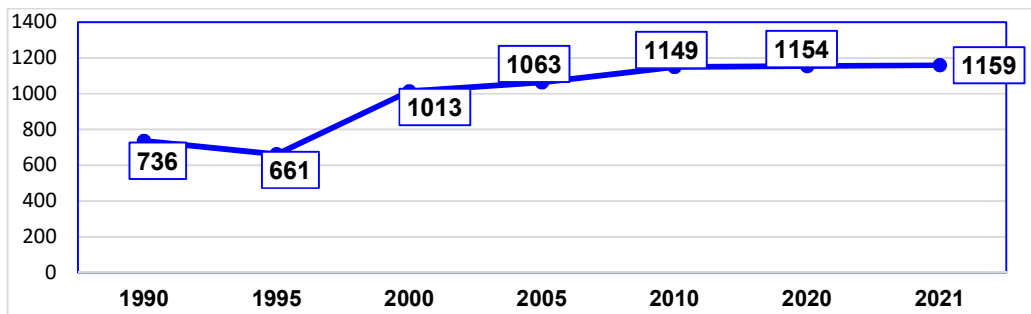


Figure 7 Evolution of existing homes in Fârdea commune, number

Specific constructive characteristics of the houses: they are mostly ground floor type constructions, with walls made of stone masonry, brick, or substitutes, with a wooden frame covered with tiles, and with electricity equipment.

• **Technical equipment of Fârdea commune**

The infrastructure in Fârdea commune is developing. In recent years, major projects have been implemented in the locality representing the needs of the citizens of the commune.

The water supply network of the localities sums 24 km.

The access to the locality is ensured from Lugoj on the county road DJ 681A through Traian Vuia, from Făget on DJ 681 through Drăgșinești – Gladna Montană connected to the national road DN Lugoj – Deva, from Nădrag on DJ 681 through Hăuzești, and DJ 681 DJ and 681A covered with asphalt concrete road in a poor state. [18]

The nature of the roads and the distance in km between the centre of the administrative-territorial unit and the localities belonging is as follows: Fârdea – Mâtnicu Mic – asphalted, 3 km; Fârdea – Drăgșinești – asphalted, 5 km; Fârdea – Gladna Montană – asphalted, 3 km; Fârdea – Gladna Română – asphalted, 3 km; Fârdea – Zolt – asphalted, 7.5 km; and Fârdea – Hăuzești – 1 km.

The locality does not benefit from connection to the natural gas network, the heating of the houses being done with wood.

• **Socio-cultural aspects**

Education. In the commune, two schools operate: a school with grades I-VIII and a kindergarten with a normal program.

In 2021, a project of rehabilitation, modernization and equipping of the educational infrastructure within the school with grades I-VIII was completed, with the help of national

funds, for a total of 2,215,948 RON. The school works with 166 students and 23 teachers.

On the territory of the commune, there is no higher secondary educational units (professional and vocational and high school), post-secondary, foremen, or higher levels.

Health. Currently, in the territorial-administrative radius of Fârdea commune, there is a medical office that provides general medicine services for each of the seven localities and a pharmacy.

Other public institutions serving the locality: Mayoralty, Police Station, and Post Office. There are no banking units (subsidiaries) or ATMs on the territory of the commune.

Culture. In Fârdea commune, there are seven cultural homes: some of them – Gladina Montană, Zlot, Matnicul Mic – entered the rehabilitation and modernization program.

Churches, monasteries, and other places of worship on the territory of Fârdea commune. Each village has an Orthodox church; in the village of Fârdea, there is an Orthodox monastery, and four Baptist and Pentecostal churches. [12]

• **Ecological aspects**

Currently, the challenges to which Fârdea commune is subjected from an ecological point of view are related to the waste following the visit by occasion tourists during the weekend, which endanger the ecosystems, as well as the summer storms.

The torrential rains led to the increase of the level of Lake Surduc; when it withdrew, the flooded portions were full of waste such as: plastic bottles and plastic residues resistant for long periods. [20]

The household waste of the inhabitants is collected in garbage cans located in households. In each locality of the commune, there is also a large capacity container for the waste from constructions, collected upon request.

• **SWOT analysis of Fârdea commune**

Following the multicriterial analysis performed above, the strengths, weaknesses, as

well as the opportunities and threats of Fârdea commune could be identified

Table 10

SWOT analysis of Fârdea commune	
STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • The proximity to the municipality of Făget – 18 km; • The gentle climate, with a low frequency of extreme weather phenomena; • The existence of a basic infrastructure, even if it requires rehabilitation and modernization; • The existence of a medical infrastructure; • The existence of an educational infrastructure; • The partial existence of a water supply network; • The existence of connections with the county roads; • The existence of Lake Surduc and of other tourist objectives in the area; • The existence of folk traditions. 	<ul style="list-style-type: none"> • The migration of the active population to urban areas and abroad and the aging population; • The poor diversification of economic activities; • The lack of places for the proper storage of agricultural products; • An agricultural infrastructure which is not rehabilitated; • The lack of a specialized institutional body, at local level, with attributions in promoting tourism; • The low professional training in the field of tourist services; • The lack of craft workshops; • The insufficiently valued natural potential; • The lack of a tourist information centre. • The lack of associative forms.
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Accessing development projects; • Availability of local authorities to conclude partnership relationships with local and foreign investors. 	<ul style="list-style-type: none"> • Decreasing population; • Insufficiently developed infrastructure for the tourist sector.

CONCLUSIONS

Below are the main conclusions resulting from the research:

- Natural resources allow Fârdea commune benefit from a potential advantage in the development of the economy; thus, location in a hilly-mountainous area with unique trails and landscapes constitute an important factor in the development of tourism.

- In the economic development of a locality, a special importance, in addition to the existence of natural resources, is represented by the dynamics of demographic resources. In the commune, the population is aging, which is why local authorities should adopt measures that increase birth rate.

- From the point of view of the technical equipment, the locality benefits from running water supply, electricity network, cable TV, and mobile telephone companies (Vodafone, Orange, and Telekom).

- Tourism is not very well developed in the area because of the lack of accommodation and food service structures. Lately, weekend, recreation, and leisure tourisms have begun to develop, Lake Surduc representing a very attractive area for tourists, though insufficiently promoted and valued.

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