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STRATEGIC ASSESSMENT MODEL OF THE RURAL SPACE IN THE COUNTY OF VALCEA, ROMANIA

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Abstract

The development of rural space is a basic concern of today's society dominated by the trend of modernization and the need to preserve identity. The current context highlights numerous elements favorable to the development of the rural space, but also elements that inhibit this process. Favorability for the development of the rural area is given by the availability of endogenous resources, and the elements that slow down the development process are generally related to the inability of the local responsibility factors to implement policies, programs and strategies adapted to the territorial specificity that lead to the development of agriculture as a basic activity but and to a diversification of economic activities and implicitly to the development of the rural economy. The paper briefly presents a model of strategic evaluation of the rural space that highlights the territorial specificity and allows the elaboration of sustainable development options adapted to it. From the secondary analysis of the statistical data and the relevant specialized literature and through the application of the PESTEL and SWOT strategic analysis models, sufficient specificity elements were identified that led to the development of relevant strategic options for sustainable rural development in Vâlcea county.

Key words**:** *sustainable development, rural space, strategic management, strategic evaluation, strategic options*

INTRODUCTION

The rural area, in the current economic and social context, constitutes an objective of relevant importance for the development of society and is represented by the sum of available endogenous resources and the ability to capitalize on them in a sustainable way. If in the past the valorization of endogenous resources in the rural area was limited to obtaining renewable biological productions, currently this valorization is focused on the diversification of economic activities [11] and ensuring their sustainability based on the consideration that the rural area is represented not only by "the fertility of the soils but also the geographical extent, respectively the allure of the surrounding environment" [2].

A series of advances in the development of rural space are known: the modernization of rural infrastructure, the development and diversification of agricultural activities, the diversification of the rural economy, still without the necessary consistency to eliminate the existing gaps compared to states in the Eastern European bloc, such as the Czech Republic, Hungary, Poland [18]. This signals the need for studies at the level of rural areas that allow the characterization from the point of view of the structure of the rural economy, the territorial specificity (given by the diversity of endogenous resources) and the social structure [23] basis for the development of relevant strategic options for the promotion of sustainable rural development [9]. What is expected from these studies is the highlighting of the most relevant measures that lead in a relatively short time to the achievement of "living conditions comparable to those in urban areas in accordance with the functions of the rural space, especially those of conservation and development of the landscape" [20]. At the level of the European Union, the adoption of rural development as a strategic policy of the European Union (EU) at the end of the 1980 is noteworthy, therefore a priority of the Common Agricultural Policy,

the emphasis being placed on the restructuring of agriculture, solving environmental problems and understanding the extensive needs of the countryside. The certification of this status takes place through "Regulation (EC) no. 1698/2005 of the Council of September 20, 2005 regarding the support for rural development granted from the European Agricultural Fund for Development [5, 21]". The existing debates in the current period lead to the promotion of economic recovery actions on a sustainable basis because it allows a better reporting on the current challenges caused by climate changes caused by economic activity capable of leading to the manifestation of extreme climate phenomena [16], in areas in which they were not present.

Romania has adopted the rural development strategy and "is part of the context of reform and development that the EU proposes through the Europe 2020 strategy" [4]. The objectives of the Europe 2020 strategy are oriented towards a "smart, sustainable and inclusive economy with ambitious targets for each member state in the fields of education, innovation, energy/ environment, employment and social inclusion and improving competitiveness in general". Rural development, according to those indicated, is based on change, but also involves ensuring its sustainability [15]. Sustainable rural development, as it results from the bibliographic study, represents an objective of strategic importance, and the current context dominated by numerical population growth, climate change and the economic crisis generated by the COVID 19 pandemic and the Russian-Ukrainian conflict highlights the reality of the existence of limited resources and imposes adopting relevant measures to ensure food safety. We understand that in order to ensure food security, the agri-food sector must find relevant solutions, so the pressure on it is high, and its almost total overlap with the rural area determines the orientation of research from this point of view towards the sustainable development of the rural environment. The realization of this ideal requires the dynamic, concrete, concurrent and integral research of the influences of external and internal components on this process using strategic management. Thus, the possibility of establishing long-term development directions, specific performance objectives and the elaboration of strategic options to ensure the achievement of these objectives is created. The strategic approach is complex, it takes place in stages and coherently through procedures that are carried out in a certain sequence according to the methodology specific to the strategic management process.

For this, a field research was organized, the purpose of which is the strategic evaluation of the development of the economy in the rural area of Vâlcea county in order to develop strategic options relevant to achieving sustainable rural development.

Vâlcea County is located "from a geographical point of view in the south-central part of Romania, belongs to the South-West Oltenia Development Region of Romania and is located between the parallels of $48^0 28''$ and $48^0 36''$ north latitude and between the meridians $23^0 37''$ and $24^0 30''$ east longitude in the Getici Subcarpathians, at the confluence of the Olt and Olănești rivers" [13]. The area of the county is 5,764.77 km^2, representing 2.4% of the country's surface and 19.73% of the South-West Oltenia Region.

MATERIALS AND METHODS

In choosing the research methods, we took into account the fact that to capture the socio-economic reality at the community level, it is recommended to use quantitative and qualitative methods to obtain more knowledge [14]. The methods used are the secondary analysis of statistical data and relevant literature (reports, strategies, studies, monographs) for the identification of critical factors and some practices, the PESTEL analysis model, respectively the SWOT analysis (Fig. 1).

The PESTEL model assumed the realization of a diagnosis of the studied area following six criteria: political, economic, social, technological, natural (environmental) and legislative contributing to the elaboration of the strategy because it sets the framework in which to operate and make decisions [8].

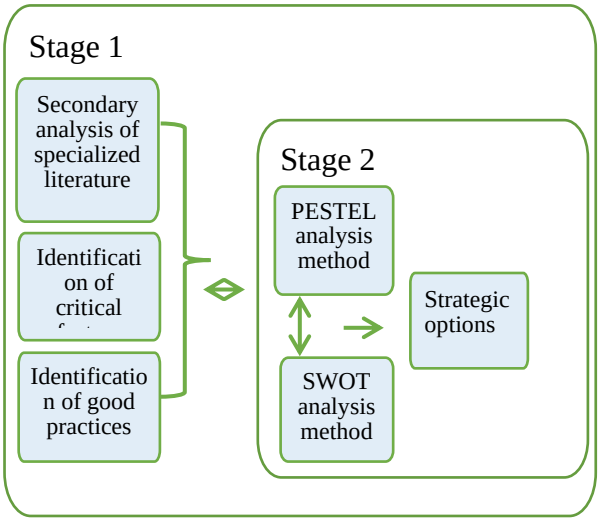

Fig. 1. Schematic structure of the research
Source: Own conception.

The SWOT model highlights the strengths and weaknesses of the researched area, respectively the opportunities and threats, representing the premise of the preparation of sustainable development strategies for sustainable development.

The role of these methods is to allow the responsible factors of sustainable rural development to obtain the most realistic overview from a socio-economic point of view, to identify critical factors with an impact on development and to elaborate strategic options relevant to sustainable rural development. At the same time, this highlights the specific elements of the researched area [10, 3] and the activities carried out [12].

RESULTS AND DISCUSSIONS

At the base of the diagnosis of the rural space in order to develop development strategies is the statement of Mateoc and Ungureanu (2010) "the problem of rural development and planning is one of the most complex themes of contemporaneity, due to the fact that, in its essence, it involves achieving a balance between the requirement to preserve the rural space from an economic, ecological and socio-cultural point of view, on the one hand, and the tendency to modernize rural life, on the other hand" [17].

The first stage sought to obtain information relevant to the research and materialized through the application of a questionnaire for the collection of quantitative information at the level of territorial administrative unit (UAT), respectively through the secondary analysis of statistical data and relevant literature. The result obtained improved through participatory observation (qualitative method of information collection) allowed the formation of a realistic picture and the identification of critical factors, respectively good practices. In the second stage, the strategic evaluation of the rural space in Vâlcea county was carried out with the help of the PESTEL and SWOT strategic analysis models. The use of the PESTEL analysis model took place on six criteria that define the life framework of the countryside in Vâlcea county (political, economic, social, technological, environmental and legislative) to identify specific characteristics of the community/area studied. Next, the SWOT model was used to combine the specific internal and external characteristics of the studied community.

Results of using the PESTEL model

The analysis of the political criterion highlights the creation at the level of the European Union of a legislative framework dedicated to the development of the rural area dominated by the Common Agricultural Policy. Over time, this has gone through numerous transformations that determined the shift from exclusively subsidizing agriculture to addressing complex issues circumscribed to the multifunctional role held by rural areas [6]. Thus, through the CAP, targets were set related to the diversification of agricultural activities, the sustainability of rural development, the preservation of the natural environment and the improvement of the living conditions of the population living in rural areas [22]. The current CAP highlights "better flexibility and a new green architecture with mandatory standards aimed at promoting green practices by farmers. Changes have been introduced to contribute to the achievement of the objectives of the European Green Deal and the strategy From farm to consumer" [1]. The farm-to-consumer strategy brings as a novelty "modern and sustainable methods of agricultural production and

management that will be financed through the eco-schemes within the CAP: precision agriculture, agro-ecology (integrated pest management, organic agriculture), agriculture with low carbon footprint and agroforestry" [7].

The development of the rural space in Vâlcea county is a strategic objective and assumed by the factors of local responsibility. The rural area of Vâlcea county identifies in 2014 a number of 78 communes and 560 villages. The development of the rural area is positively correlated with the development and diversification of economic activities, and the existence of inequalities in the field of road infrastructure and public utilities makes it difficult to achieve. Added to this is the low ability to access European funds for the reduction/disappearance of these inequalities against the background of a low level of education and involvement. Local Action Groups (LAGs) formed through the LEADER axis of the National Rural Development Program (PNDR), are numerically reduced in Vâlcea county, proving a disinterest of the inhabitants of the rural environment in attracting funds specific to local needs (Integrated Sustainable Development Strategy Vâlcea, 2015 - 2020). Through PNDR in Vâlcea county in 2019, 59 projects with a total value of approximately 110 million lei were completed and in the process of completion [32].

The analysis of the economic criterion highlights that the countryside of Vâlcea county is generally characterized by a poor diversification of economic activities dominated by agriculture. Industry is a little developed economic sector in rural Vâlcean. Tourist and agro-tourism activities in the favorable areas register an effervescence, which represents an important alternative source of income and employment for the Valcean countryside. The diagnosis included all the elements that make up the economic life of the studied rural area and aims at: the level of GDP, the branch structure of the national economy, the level of development of each branch, the evolution of the economy and the population, the evolution and distribution of income by social category, the degree employment etc.

The gross domestic product had a sinusoidal path in the period 2019-2022, so according to Table 1, it recorded lower values in 2020 than in 2019 and then increased in 2021 and 2022. The gross domestic product per capita shows the same trend with an evolution index above the national average.

Table 1. Gross domestic product

	2019	**2020**	**2021**	**2022**
Total GDP per economy	1,059.8	1,040.8	1,116.8	1,204.2
The South-West region of Oltenia	81.3	79.7	86.4	93.4
Vâlcea county	15.4	15.3	16.6	18
Gross domestic product per inhabitant				
Total	11,527	11,162	11,904	12,794
The South West region of Oltenia	8,927	8,669	9,380	10,159
Vâlcea county	9,300	9,104	9,838	10,682
The evolution of the gross domestic product				
Total economy	4.1	-4.4	4.3	4.7
The South West region of Oltenia	3.7	-4.5	5.4	5.1
Vâlcea county	5.7	-3.4	5.6	5.7

Source: Own calculation based on NIS data [19].

The contribution of Vâlcea county to the formation of the regional GDP registers an average (2005-2016) of 18.39% and 1.33% to the formation of the national GDP [24]. The gross domestic product by sectors of activity, in 2011, reveals the fact that the largest contribution to its formation is made by industry, respectively the processing industry, whose weight is 30.1%, compared to 28.8%, which is the contribution to national level, followed by trade with 13.7%, public administration with 10.7%, construction with 8.9% and agriculture with 8.6% [13].

The performance of the agricultural sector in Vâlcea county does not rise to the level of the agricultural potential, although there are concerns of the group of specialists and the competent bodies in this regard. One of the factors that hinders performance in agriculture

is the fragmentation of property into small plots (3.4 - 5.82 ha), which imposes the need to merge them into holdings with larger areas, in order to be able to switch to a high-performance agriculture.

With an area of 576,477 ha, Vâlcea County is the second largest county within the Southwest Oltenia Development Region of Romania, occupying 20% of its area. Of the total area owned by Vâlcea county, 42.12% is agricultural area, i.e. 242,856 ha with the following types of use: 35.76% arable, 44.01% pastures, 13.39% hayfields, 1.49% vineyards and wine nurseries, 5.33% fruit orchards and nurseries. To these areas are added the non-agricultural lands in the area of 333,621 ha, respectively 57.88% of which forests and other forest vegetation 88.09%, area occupied by waters and ponds 3.74%, area occupied by constructions 3.49% , roads and railways 2.05%, degraded and unproductive land 2.6% (Table 2).

Table 2. The land fund in Vâlcea county by categories of use

No	The mode of use for the agricultural area of Vâlcea county	Ha	%
1.	Total	**576,477**	**100**
1.1.	Agricultural	242,856	421.2
1.1.1.	Arable	86,857	35.76
1.1.2.	Grassland	106,894	44.01
1.1.3.	Rough	32,531	13.39
1.1.4.	Vineyards and wine nurseries	3,622	1.49
1.1.5.	Fruit orchards and nurseries	12,952	5.33
1.2.	Toal non-agricultural land	333,621	57.88
1.2.1.	Forests and other forest vegetation	293,915	88.09
1.2.2.	Busy with puddles	12,497	3.74
1.2.3.	Busy with construction	11,650	3.49
1.2.4.	Roads and railways	6,857	2.05
1.2.5.	Degraded and unproductive land	8,702	2.6

Source: Own calculation based on NIS data [19].

The analysis of the mode of agricultural use highlights the large weight held by the pasture category 44.01%, which shows the favorability of the area for animal breeding, Vâlcea county being in first place in the region in this chapter.

The areas occupied by the main crop plants highlight the following (Fig. 2): the area cultivated in Vâlcea county with the main crop plants decreased from 85,950 ha (1990) to 78,356 ha (2007), respectively to 69,326 ha (2019).

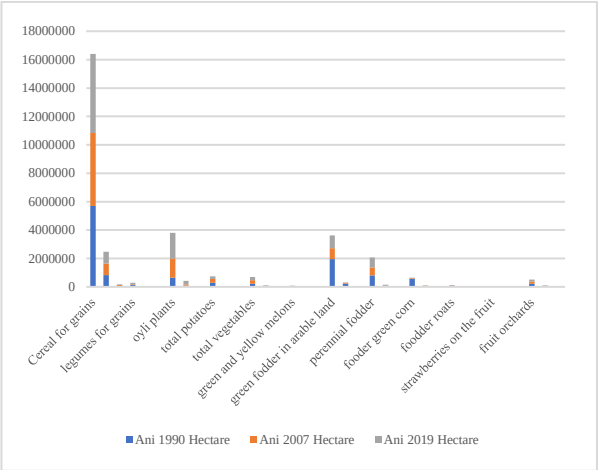

Fig. 2. The evolution of the areas occupied with the main crops in Vâlcea county
Source: NIS data Tempo online [19].

The situation for each main category of crop plants is as follows: cereal for grains occupy an area of 54,820 ha (2019) compared to 69,199 (2007) and 60,412 (1990); grain legumes occupy an area of 115 ha (2019) more than 61 ha (2007) and less than 580 ha (1990); oil plants occupy an area of 2,301 ha (2019), much larger than 251 ha (2007), respectively 30 ha (1990); potato occupies an area of 2,984 ha (2019) more than 2,131 ha (2007) and less than 3,651 ha (1990); area occupied with vegetables reaches 4,289 ha (2019) lower than 4,376 ha (2007) and higher than 3,278 ha (1990); green fodder obtained in arable land occupies an area of 6,492 ha (2019) greater than 4,673 ha (2007) but less than 16,817 ha (1990); perennial fodder occupies an area of 5,926 ha (2019) greater than 4,550 ha (2007), but less than 9,573 ha (1990); fodder roots occupy an area of 160 ha (2019) more than 52 ha (2007), but less than 1,292 ha (1990); strawberries on fruit are found on an area of 185 ha (2019) more than 129 ha (2007), but less than 392 ha (1990); fruit orchards occupy an area of 10,845 ha (2019) more than 8,551 ha (2007) but less than 16,459 (1990).

Livestock breeding is a traditional occupation in Vâlcea County, as can be seen from the land fund through the large proportion of areas occupied by pastures.

The numbers of animals registered at the level of Vâlcea county (Figure 3) show in 2018 a decrease compared to 1990, respectively 2007 for cattle (41,519); pigs (75,043); horses (5,648); poultry (1,482,416).

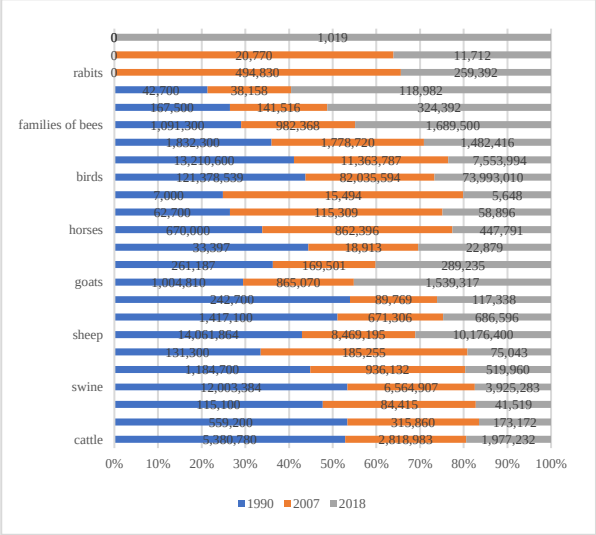

Fig. 3. Evolution of the number of animals in the main species in Vâlcea county
Source: NIS data Tempo online [19].

Regarding the increase of sheep, the analysis shows that their number has increased significantly, recording in 2018 a herd of 117,338 compared to 89,769 (2007), but lower than in 1990 (242,700).

Goats number 22,879 in 2018, increasing compared to 2007 (18,913), but decreasing compared to 1990 (33,397).

Bee families represent the category that registers the biggest increases, recording in 2018 a number of 118,982 bee families, increasing compared to 2007 (38,518) and compared to 1990 (42,700).

There is also a new category of rabbits that registered in 2018 a herd of 1019.

Forests represent an important wealth of Vâlcea county. Forest vegetation covers 50.98% of the county's surface, constitutes one of the main resources of the economy of the county's localities and ensures a good ecological balance.

The total area occupied by forest in the year 2020 registers in Vâlcea county the value of 267,200 ha, insignificantly higher compared to the year 207 (262,400 ha) and insignificantly lower compared to the year 1990 (267,900 ha), following the same existing trend at the regional and national level.

In 2020, the area of coniferous forests is 88,800 ha less compared to 207 (92,200 ha) and higher than in 1990 (82,000 ha). Deciduous forests occupy an area of 178,400 ha in 2020, more than in 2007 (170,200 ha) and less than in 1990 (185,900 ha). It is noted that deciduous forests predominate, their share being 66.76% (Table 3).

Table 3. Evolution of forested areas in Vâlcea county

		Anul		
		1990	2007	2020
		thousands of hectares		
Forest surface	Total	6,252.3	6,314.9	6,449.4
	The South West region of Oltenia	790.1	784.4	790.1
	Vâlcea county	267.9	262.4	267.2
Softwood	Total	1,928.8	1,920.2	1,916
	The South West region of Oltenia	123.7	124.4	122.3
	Vâlcea county	82	92.2	88.8
Hardwood	Total	4,323.5	4,394.7	4,533.4
	The South West region of Oltenia	666.4	660	667.8
	Vâlcea county	185.9	170,2	178.4
Other lands	Total	118.8	169.6	154.8
	The South West region of Oltenia	16.3	20.4	23.8
	Vâlcea county	3.5	5	5.3

Source: Own calculation based on NIS data [19].

Table 4. The evolution of agriculture, forestry and fishing enterprises in Vâlcea county

CAEN Rev. 2 (activities of the national economy - sections)	**Size classes**	**Years**	
		2008	2020
		number	
A Agriculture, forestry and fishing	0-9 people	148	190
	10-49 people	19	35
	50-249 people	1	6
	250 people and more	1	:

Source: NIS data Tempo online [19].

Enterprises in the agricultural sector register an increase for all categories, such as micro-

enterprises from 148 (2008) to 190 (2020), small enterprises from 19 (2008) to 35 (2020), and medium-sized enterprises from 1 (2008) to 6 (2020). These are suggestively presented in Table 4.

The rural industry includes units or sub-units of production and provision of productive services, located in the rural area and belonging to the craft cooperative, agricultural commercial companies, private producers, etc. Food industry companies are well represented in Vâlcea County by the canning company from Râureni.

This is one of the well-known Romanian brands with a tradition of over 4 decades in the production of canned vegetables, fruits, and natural juices. The company went through several transformations and in 2008 was taken over by the Annabella company which invested 5 million Euro in the modernization and re-technological of the production processes as well as in the distribution of the products. Today the company distributes production both on the domestic and foreign markets. Exports have a share of 10% of the entire production and are oriented towards the markets of Germany, Austria, Italy, Spain, England, Canada. Other enterprises with national recognition operate in the bakery sector – SC Velpitar SRL; SC Boromor SRL, meat processing – SC Diana SRL.

Tourism is a well-represented activity in the rural area of Vâlcea county, totaling a number of places/day of 3,555,564 (2021), increasing compared to 2007 (2,625,499), as shown in Table 5.

We note the contribution of agritourism guesthouses to the development of the rural area by contributing to the increase in the incomes of rural households and the increased number of accommodation places for the days they operate by 380,926 (2021) higher than 27,133 (2007) as can be seen in Table 6.

The localities with the largest number of accommodation places are Voineasa (124,905 in 2021, more than 10 times higher than in 2007); Malaia (92,853 in 2021, about 20 times more than in 2007), Costești (36,224 in 2021, about 6 times more than in 2007).

Table 5. Tourist accommodation capacity in the rural area of Vâlcea county

Types of tourist reception structures	places	2007	2021
		Places:days	
Total	Total	2,625,499	3,555,564
	Barbatesti	496	3,450
	Budesti	328	1,070
	Bujoreni	:	5,110
	Caineni	6,850	13,464
	Costesti	552	36,224
	Daesti	988	2,000
	Fartatesti	:	4,728
	Golesti	8,480	15,308
	Ionesti	:	1,464
	Lungesti	:	3,996
	Maciuca	:	13,300
	Malaia	9,443	118,301
	Maldaresti	:	11,645
	Mateesti	:	180
	Mihaesti	6,570	8,736
	Milcoiu	19,772	20,775
	Racovita	6,570	10,864
	Salatrucel	5,520	16,226
	Slatioara	:	10,222
	Tetoiu	:	6,344
	Tomsani	:	1,440
	Vaideeni	:	12,538
	Vladesti	2,534	4,270
	Voineasa	214,247	204,767

Source: NISdata Tempo online [19].

Table 6. Accommodation capacity in agritourism guesthouses in the rural area of Vâlcea county

Types of tourist reception structures	places	2007	2021
		Places:days	
Agritourism guesthouses	TOTAL	27,133	380,926
	Barbatesti	496	3,450
	Budesti	328	1,070
	Bujoreni	:	5,110
	Caineni	:	13,464
	Costesti	552	36,224
	Daesti	988	2,000
	Fartatesti	:	4,728
	Golesti	896	9,940
	Ionesti	:	1,464
	Lungesti	:	3,996
	Maciuca	:	13,300
	Malaia	5,792	92,853
	Maldaresti	:	11,645
	Mateesti	:	180
	Racovita	:	10,864
	Slatioara	:	10,222
	Tetoiu	:	6,344
	Tomsani	:	1,440
	Vaideeni	:	12,538
	Vladesti	2,534	1,240
	Voineasa	11,056	124,905

Source: NIS data Tempo online [19].

The analysis of the labor force at the level of Vâlcea county highlights a constant evolution of the labor resource around 128 thousand people (127.4 in 1990 and 128.6 in 2007), after which this number drops to 108.8 thousand people in 2018 (Table 7).

Table 7. The labor resource in Vâlcea county

Gender	Years		
	1990	2007	2018
	thousands of people		
Male	127.4	128.6	108.8
Female	119.5	115.8	99.1

Source: NIS data Tempo online [19].

The study of the activity rate by age groups, residence environments South West Oltenia Region (Table 8) highlights a decrease in it for all age groups, as follows: age group 15-24 years (from 29.5% to 24.3%), 25-34 years (from 80.5% to 72.5%), 35-54 years (from 82.4% to 77%), 55-64 years (52.1% to 45.3%).

Table 8. Activity rate by age groups and residence environments in the south-west Oltenia region

Age groups	Residential environments	Years	
		2007	2021
		%	
15-24 years	Total	29.5	24.3
	Urban	18.8	13.2
	rural	42.1	33.1
25-34 years	Total	80.5	72.5
	Urban	79.3	79
	rural	81.8	66.5
35-54 years	Total	82.4	77
	Urban	80.9	85.5
	rural	84.2	68.7
55-64 years	Total	52.1	45.3
	Urban	31.1	49.7
	rural	65.9	40.9
16-65 years	Total	66	61.4
	Urban	60.6	66.3
	rural	71.7	56.7

Source: NIS data Tempo online [19].

The analysis of the average number of employees in the rural area of Vâlcea county for the period 2007-2018 shows a decrease from 18,271 (2007) to 17,369 (2018) with the following evolution by locality (NIS, online Tempo data): Alunu locality from 685 to 756, Amărăști from 177 to 49, Bărăți from 316 to 159, Berislăvești from 350 to 330, Boișoara from 76 to 55, Budești from 568 to 470, Bjoreni from 274 to 360, Bunești from 220 to 100, Caineni from 314 to 225, Cernișoara from 235 to 210, Dăesti from 400 to 455, etc. This shows the predominance of the decreasing rate for most localities, but also the existence of some localities with very significant increases in the number of employees ex Mihăesti from 684 to 2,240.

The analysis of the social criterion reinforces the idea that the social environment, together with the economic one, represents the foundation of the analyzes regarding the sustainable development of the rule and is the basis of the strategic orientation. Knowing the evolution of the population in the rural area of Vâlcea county constitutes the pivot of the analysis, because the population has an impact on the economic environment and implicitly on the sustainable rural development, being a factor of action and consumption, respectively the beneficiary of the development. Numerically, it records a downward trend from 411,576 inhabitants (2007) to 354,535 (2014), respectively to 351,728 (2018). The share of the rural population is 54.6% (2007), 55.4% (2014), respectively 55.2% (2018). The population density was 71.4 inhabitants per kmp in 2007, 63.2 inhabitants per kmp in 2014, respectively 61.0 inhabitants per kmp in 2018 (Table 9).

Table 9. Resident population by means and density

Period	Number of inhabitants			% of total		Density
	Total	urban	rural	urban	rural	
2007	411,576	186,838	224,738	45.4	54.6	71.4
2014	364,535	162,555	201,980	44.6	55.4	63.2
2018	351,728	157,469	194,259	44.8	55.2	61.0

Source: NIS data Tempo online [19].

Mass education highlights a school network for the rural area of Vâlcea county represented in the 2021-2022 school year by 3 high schools, 1 vocational school, 87 secondary schools, 149 kindergartens and 32 primary schools. The health infrastructure highlights in 2018 6 publicly owned hospitals and 5 privately owned hospitals, 1 public polyclinic and 10 private polyclinics, 3 medical dispensaries, 1 health center, 1 mental health center, 1 medical and sanitary unit, 1 medical center of specialty, 83 private medical offices of general medicine, 17, school medical

offices, 204 privately owned family medical offices, 7 privately owned civil medical society units, 233 privately owned dental offices, 18 privately owned civil dental society units, 326 medical offices privately owned specialized medical companies, 3 privately owned specialty medical civil societies, 7 publicly owned pharmacies, 173 privately owned pharmacies, 52 privately owned pharmaceutical points, 1 publicly owned pharmaceutical warehouse, 36 publicly owned medical laboratories, privately owned medical laboratories, 19 laboratories of technique d entare privately owned, 1 transfusion center publicly owned, and other types of medical offices, of which 1 is public and 12 private [24]. The existing homes in Vâlcea county show an increasing trend from 182,412 homes in 2014 to 184,721 homes in 2018 [26]. The localities in which there is sewerage total a number of 43 (2014) whose evolution is positive and reaches 48 in 2018. Among them, a number of 32 localities belong to the rural environment (2014), respectively 37 (2018) [27]. The network and the volume of distributed drinking water highlight the existence of 67 localities with a water distribution network in 2014, which is evolving positively to 76 localities in 2018. Of these, a number of 65 are rural localities with 9 localities more than in 2014. They record a total length of 2,448.3 km (2018) of which 1,733.6 km in rural localities [28].

The natural gas network is present in 17 localities, 9 of which belong to rural areas, with a length of 582.2 km (2018) [29]. The railway lines total 163 km. Public roads total 2,321 km in 2018 compared to 2,325 km in 2014 [30]. Of the 2321 km, 876 km are modernized roads, 835 km with light road surfaces, 470 km paved roads and 140 km dirt roads [31].

The analysis of the technological criterion highlights its influence on the competitive advantage. This process is enhanced, moreover, by the need to integrate the Romanian economy into the European Union economy, a process that is taking place below expectations, but which must be accelerated, and a significant contribution to this is also made by the following three institutions of the county: The National Research - Development Institute for Cryogenic and Isotopic Technologies (ICSI), whose object of activity is scientific research, technological development and innovation, with the capitalization of results through technological transfer and specialized services; The Research and Development Station for Fruit Cultivation, which aims to relaunch and modernize fruit growing in the Oltenia region and align this field, scientifically and economically, with community requirements, while ensuring the competitiveness of fruit products on international markets; The Drăgășani Winery Research - Development Station was established in 1,936 under the name of the Drăgășani Oenological Station, as a unit of the Ministry of Agriculture and Domains [13]". The total research and development expenses in Vâlcea county are increasing from 24,849 thousand lei (2007) to 54,516 thousand lei (2018) (NIS, Tempo online).

Table 10. The park of tractors and main agricultural machines in Vâlcea county

Categories of tractors and agricultural machines	**Years / number**		
	1990	2007	2018
Agricultural tractors	1,701	2,003	5,040
Plows	992	1,741	3,001
Cultivators	152	102	172
Seed drills	286	577	1,323
Machines for spreading chemical fertilizers	105	:	:
Spraying and dusting machines	272	15	8
Self-propelled combines for grain harvesting	276	191	317
Self-propelled combines for harvesting fodder	59	3	5
Combines and machines for harvesting potatoes	17	:	1
Presses for baling straw and hay	184	5	101
Windrowers for fodder	47	2	1

Source: NIS data Tempo online [19].

The agricultural field shows an increase in the level of technological endowment (Table 10) as follows: at the level of tractors (1,701 in 1990 to 5,040 in 2018), plows (992 in 1990 and 3,001 in 2018), mechanical seeders (286 in 1990 and 1,323 in 2018), but also their

decreases in the case of balers from 184 (1990) to 101 (2018) and windrowers for fodder from 47 (1990) to 1 (2018) which shows a series of changes at the level of technologies, but also at the level of land use.

The data attest to the low level of receptivity to technological innovations and the degree of endowment with such goods, but an increase in the orientation towards the identification of funds to attract them. The collaboration between higher education institutions and the business environment in the rural area is timid even if it is noted that there are partnerships regarding research, innovation and business development in the rural area.

The analysis of the natural criterion highlights the need to adopt immediate measures to restore its quality because: a fifth of the 832 km of the length of the Olt River within Vâlcea County has a moderate ecological condition, the water quality of the reservoirs on the territory of Vâlcea County shows a ecological moderate/good, the quality of the fields is affected by the administration of chemical fertilizers, zootechnical residues (development strategy of Vâlcea county, 2016). Waste management is carried out in accordance with the County Waste Management Plan (PJGD, Vâlcea, 2019-2025) developed on the basis of the National Waste Management Plan, in force from 01.05.2018, and the Methodology for the development, monitoring, evaluation and the revision of the county waste management plans and the waste management plan for the municipality of Bucharest by means of Order no. 140/2019, in force since April 17, 2019.

At the level of 2018, a deficient degree of coverage with sanitation services is highlighted (Table 11).

Table 11. Degree of coverage with sanitation services

residential environments	**Degree of coverage with sanitation services**	
	2014	2018
Total	40	46
Urban	54	73
Rural	28	24

Source: NIS data Tempo online [19].

This was due to the need to build a legal framework specific to the market economy, respectively Romania's alignment with European legislation. The impact of this situation on rural development was a negative one, because it generated enough reasons for insecurity in making investments, especially those of an external nature. Another negative characteristic of the legislative framework is the lack of permanence, i.e. the durability of some normative regulations on the grounds that with the alternation of governing parties every four years, different visions were also manifested, which implicitly attracted legislative changes.

Synthesis of the use of the PESTEL model

The results obtained following the application of the diagnosis of the rural area using the PESTEL model are presented centrally in Table 12 and include both the major diagnosis criteria (Political, Economic, Social, Technological, Environmental and Legal) and the main sub-criteria.

Table 12 Results of the macroenvironment diagnosis according to the PESTEL model

Macro Environment Analysis Criteria	
Political	Economic
Change in order to adapt to the requirements of the Community market, Promoting coherent policies Promoting environmentally friendly policies, Appropriate social policies.	Economic, fiscal and budgetary policies, Workforce, standard of living, Activity rate, Employment rate,
Social	Tehnological
Demography (number of population, density, evolution, birth rate, mortality rate), social laws, Level of education, Image and attitude towards work,	The level of technological endowment State expenditures in research and development Receptivity to technological innovations Collaboration between higher education institutions and the economic environment.
Environment	Legal
Environmental protection policies Waste management and recycling,	Regulations on: environment protection, work legislation, taxation.

Source: Own processing.

Next, within each major field of diagnosis, of the PESTEL model, those sub-criteria of diagnosis considered relevant for the approach regarding the development of the rural area were selected and are presented in Table 13. This selection is carried out by working groups made up of local actors and specialists in the issue of rural development.

Table 13 The relevance of some criteria of the PESTEL model for rural development

Field of diagnosis	Sub criterion	Impact				
		1	2	3	4	5
Political	Promoting coherent policies				■	
	Promotion of environmentally friendly policies				■	
	Adapting and updating policies to community policies.					■
Economic	Economic policies in favor of the environment			■	■	
	Fiscal policies			■	■	
	Workforce				■	
	Inflation index				■	
Social	Population evolution			■	■	
	Activity rate			■	■	
	Occupancy rate				■	
Tehnolo-gical	ICT infrastructure			■	■	
	State expenditures in research and development			■		
	Intensity and technological creation				■	
Environ ment	Environmental protection policies				■	
	Waste management				■	
Legal	Regulations regarding:				■	
	protect the environment				■	
	Work legislation			■	■	
	Taxation				■	■

Source: Own processing.

Results of using the SWOT model

The information collected with the help of the PESTEL analysis model is relevant, but for the most complete knowledge of the socio-economic characteristics of the countryside in Vâlcea county, the SWOT analysis model was used. With the help of the SWOT analysis model, the strong and weak points were identified, respectively the opportunities and external threats of the researched area, which presents the following layout (Table 14):

The information presented in the SWOT analysis leads to the establishment of the following:

- the advantages of the sustainable development of the rural area in Vâlcea county are: high potential for the development of agricultural and non-agricultural activities (tourism, agritourism, etc.); support from local authorities for harmonious development through the development of sustainable development strategies
- The weaknesses of the sustainable development of the rural area in Vâlcea county are: the decrease in the number of the population, the poor educational infrastructure, the share of small agricultural holdings, respectively the lack of the necessary knowledge, regarding the attraction of national and European funds, for a high percentage of farmers.
- The opportunities for the sustainable development of the rural area in Vâlcea county are: the multiple possibilities of diversifying agricultural activities, developing agricultural and non-agricultural activities, improving the physical infrastructure, sustainable capitalization of renewable resources, respectively the European legislative framework favorable to sustainable development (CE, 2019);
- The threats to the sustainable development of the rural area in Vâlcea county are: the degradation of the natural environment, the shyness of the measures of subordinating the economic to the ecological, the lack of sustainable consumption models, the lack of clear strategies to promote and support the products obtained in the rural area, the predisposition for an exaggerated consumption of resources.

The synthesis of the information acquired as a result of the implementation of the methodology used leads to the elaboration of the following strategic options for the sustainable development of the rural space in Vâlcea county:

1. Supporting investments in the field of agritourism and rural tourism

Table 14. SWOT analysis

	Strong points		*Weaknesses*
1	Tourist potential favorable to agritourism and rural tourism	1	Population decrease due to migration
2	Good agricultural potential and the diversification of the land fund by categories of use	2	Weak reaction of political forces vis-à-vis the updating of the national legislation on sustainable development
3	Climatic conditions favorable to a harmonious economic development in conditions of increased biodiversity	3	Poor educational infrastructure, accentuated in small villages.
4	Support from local authorities to achieve a balance between socio-economic interests and their impact on the environment	4	Significant share of individual agricultural holdings that determine the non-alignment of agricultural production with European standards.
5	Development of a sustainable development strategy at the Vâlcea county level	5	Lack of the necessary knowledge, regarding the attraction of national and European funds, for a high percentage of farmers.
	Oportunities		***Threats***
1	The possibility of developing and diversifying economic activities	1	Degradation of the natural environment due to both agricultural and non-agricultural activities
2	The possibility of accessing European and national funds to improve the physical infrastructure	2	The shyness of the measures of subordinating the economic to the ecological and the integration of production and processing activities
3	The possibility of accessing European funds for the development of the agricultural and non-agricultural sector in the countryside	3	Lack of funds for innovation and infrastructure in the process of transition to the sustainable economy
4	The existence of an increasing trend for rural tourism and agritourism	4	Low degree of awareness on the part of the population for the need to adopt sustainable consumption patterns
5	The existence of interest in the sustainable exploitation of renewable resources	5	Lack of clear policies and strategies to promote and support products obtained in rural areas.
6	The existence of a European legislative framework favorable to sustainable development (European Green Deal)	6	The predisposition towards an exaggerated consumption of resources

Source: Own processing.

2. Adapting the legislative framework to the requirements of the European Green Deal strategy
3. Developing strategies and programs for harmonious local development
4. Development and promotion of information and consulting services offered to staff from the rural area and from the local public administration in order to access funds for rural development.
5. Attracting investment funds and creating jobs
6. Supporting the process of initiating and implementing sustainable business models with the help of the post-2020 financing framework
7. The promotion and superior valorization of specific products, of the traditions of the rural area of Vâlcea county
8. Developing integrated agricultural systems by encouraging partnerships in redesigning the current supply chain (farm to fork).

CONCLUSIONS

The development of relevant strategic options for the sustainable development of the countryside in Vâlcea county is based on the realization of a diagnosis at the level of its component elements.
The research methodology used included methods and techniques belonging to strategic management and consisted of the secondary analysis of specialized literature, the identification of critical factors and successful initiatives, the application of PESTEL and SWOT analysis models.
The study highlights the existence at the level of the studied area of the premises necessary for the sustainable development of the

countryside in Vâlcea county as a result of the natural potential favorable to agricultural and non-agricultural activities that can be exploited to its true potential through the development of information and consulting services in order to access funds for rural development;

For rural areas at the European Union level, there are intense concerns about sustainable rural development. The key elements of this development are partnership and innovation, which creates the appropriate framework for sharing knowledge and experiences in the direction of redesigning rural economic activities towards the sustainable exploitation of available resources.

The diagnosis of the area using the PESTEL and SWOT analysis models led to the identification of the specific elements of the studied area and gave the possibility to the responsible factors and those interested as forces of the development of the rural space to better guide the process of elaboration and implementation of strategic options for obtaining sustainable rural development.

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