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## **AGRICULTURE AND BUSINESS DEVELOPMENT IN RURAL AREAS: EFFECTS OF THE IMPLEMENTATION OF NATIONAL PROGRAMME OF RURAL DEVELOPMENT**

**Cornelia ALBOIU<sup>1</sup>, Razvan STIRBU<sup>2</sup>**

<sup>1</sup>Institute of Agricultural Economics, Calea 13 Septembrie nr.13, sector5, Bucharest, phone/fax: +40213182411; e-mail:coraalboiu@yahoo.com,

<sup>2</sup>Faculty of Management, Economic Engineering in Agriculture and Rural Development, Bucharest, phone/fax:0040744647410; e-mail:rstirbu@wandoo.fr

**Corresponding author:** coraalboiu@yahoo.com

### **Abstract**

*The paper makes an analysis of the business and rural development in Romania investigating the level of fund absorption from the rural development program mainly from Axis 1 and axis3. To compare the two axes we used a set of socio-economic indicators which were used in order to compare the measures belonging of these axes. The paper uses comparative analysis to asses the level of fund absorption for each measure. The results highlight the need and support for structural change and rural diversification. The conclusion suggests that for a better improvement of fund using there is a need for a better balance between different measures within the axis when projects are submitted and contracted, more facilities in terms of eligibility criteria and more information and awareness among farmers and local administration, improved access to credit.*

*Keywords: business and rural development, fund absorption*

### **INTRODUCTION**

The purpose of this paper is to identify the stage of the rural development program (RDP) at its mid-term implementation in terms of services improvement and business development in rural areas, and it suggests guidelines for improvement based on the current problems (weaknesses and constraints). It mainly focuses on Axis 1 and Axis 3, more exactly on those measures belonging to the two axes. In this regard, a set of indicators are presented in order to reflect the current situation following the half implementation of the RDP which in turn may allow for a better allocation and intensification of the rest of the RDP funds. The paper is organized as follows: section 1 presents the main motivation of this paper and the research questions, section 2 gives a review of literature in the field and develops on methodology, section 3 undertakes an analysis of agricultural and business development in the rural areas based on a set of indicators and makes a review of the rural development program and section 4 concludes and suggests further improvement in the

implementation of the program. The main research questions of this paper are:

1) to what extent the projects submitted by type of measures dedicated to agriculture, rural services improvement and business development reached the optimum level of absorption at the moment?

2) to what extent the level of the entrepreneurial activity has increased following the implementation of the program (axis 1 and axis 3)

3) to what extent the level of off-farm diversification has increased

The motivation in choosing these two axes was determined by the fact that the measures are extremely representative for the future agricultural and rural development of Romania.

### **MATERIAL AND METHODS**

Romanian agriculture and rural development were exposed to the challenges of EU market integration.

Issues related to agricultural and rural development are vastly debated and there is a large literature dealing with these aspects.



Nevertheless, the situation regarding the impact of rural development program on agriculture and business/rural development in Romania is still a subject of interest for researchers and stakeholders.

Mateoc-Sirb et al. (2009) presents an analysis which depicts the indicators of economic development at regional level for a better allocation of rural development funds. The authors suggest several variants for the delimitation of development regions that should respect, to a certain extent, the NUTS criteria established by the European Union while taking into consideration the historical regions of Romania, and enable the design and implementation of regional development policy according to the specific conditions of each region.

Lepadatu and Iurchevici (2009) assert that the sustainable development represents a modality of economic efficiency growth and increases the competitiveness of Romanian agricultural households. Their paper presents aspects of sustainable development in the agricultural sector and proposes a system of indicators on monitoring the impact on the farm activities with regard to environment. Cretu et al. (2009) present the results of a project with regard to the development of agricultural spirit by leadership, whose aim was to increase the managerial capacities of the target group in the field of business development. Borlovan et al. (2010) make an analysis of the role of public administration in rural development through the European Funds, drawing attention on the most important measures where rural development can play a key role, either as promoter or support actions (information, partnership) to obtain additional funding from other programs such as Sectoral Operational Programs.

In this paper we have tried to use a specific set of indicators regarding the rural development program in Romania in order to compare the program priorities mainly under axis I and III. Similar approaches were used by Lowe et al. (2002) who investigated the possibility to relocate a proportion of farmers' direct payments towards the Second Pillar of the CAP in the UK and France according to their national agricultural agenda and rural priorities.

In order to analyze the rural development program we used case study methodology including a set of indicators specific for each axis of the program. Due to space limitation and the level and priorities of rural development program, we shall mainly focus on axes 1 and 3. In addition to this, an analysis of the general agricultural characteristics of the country is made. The main indicators we will examine are meant to describe the agricultural situation in Romania and the business development. Axes 1 and 3 of the rural development program will be reviewed using comparative analysis. Following this review, the paper highlights the differences in the program priorities, the level of funds absorption so far and the challenges ahead until the end of the rural development program.

The main indicators characterizing the agricultural situation in Romania will mainly focus on average farm size, holdings as percent of agricultural land and percent of agricultural employment. The indicators characterizing the business development will reflect mainly an average of the new business creation, investments per capita. As far as Axis 1 and Axis 3 are concerned, we shall mainly focus on specific measures, trying to see the allocation committed so far, the number of applicants and the percentage of money already paid from the allocation committed for 2007-2013.

## RESULTS AND DISCUSSIONS

Agriculture and rural area still play an important role in the Romanian economy. In Romania, the gross value added in GDP represented 6.6% in 2009. The percentage of the population employed in agriculture represents 27.6%. Although these indicators are much higher in comparison with the EU, the importance of the primary sector is under decline. The value of agricultural production in Romania features very high volatility and is very much dependent on weather conditions. In 2009, the share of crop production represented 60.3% while the livestock production was 39.6%. Production stabilization might be obtained by increasing

the number of the new technologies used in agriculture and by increasing the percentage of animal breeding.

Table 1: Indicators characterizing the agricultural situation in Romania, 2007

Romania				
Average farm size ha		Managed land as % of total agricultural land		Agricultural employment %
Individual	legal entities	individual	legal entities	national level
2.3	270.5	65%	35%	27.6

Source: Calculations based on Farm Structure Survey 2007

The individual farm size in Romania represents 2.3 ha, while for legal entities it is 270.5 ha. The national average farm size is 3.5ha. At national level, 65% of land is managed by individual farmers and 35% of land is managed by legal entities. This low average hides the disparity between the agricultural holdings as regards their size, and a dual or bipolar distribution can be noticed. Almost 80% of the utilized agricultural area (UAA) is divided almost equally between two categories: a very large group (80% of total holdings), consisting of low-sized farms, under 5 ha and a very small group of holdings over 50 ha of size (13,830, which operate 40% of UAA). The remaining 20% of UAA is operated by an intermediary segment, represented by holdings of 5 to 50 ha, which is lower compared to other EU countries and this segment needs to be developed.

Table 2 presents the level of non-agricultural activities carried out by households in Romania. As it can be seen, 37% of agricultural households carry out non-agricultural activities: the entrepreneurship degree of individual households is much higher, i.e. 37%, and it is only 30% in the case of legal entities (Table 2).

Table 2: Non-agricultural activities carried out by individual and legal entities

Households that carry out non-agricultural activities	Individual	Legal	Total
Number of households	1598600	5526	1604126
% of total number – national level	37%	30%	37%

Source: Eurostat, Farm Structure Survey 2007, Romanian National Institute for Statistics

An interesting consideration, which is partially in contrast with the definition of subsistence given by Todaro (2006), is that the Romanian subsistence food production is not limited to staple crops or nutritious food, but is also relevant for complex food products such as wine and spirits, cheese and cured meat. This particular area in subsistence agriculture is household food processing, where households manufacture their own products, through bioprocesses that have a certain level of technology and technical knowledge. In fact, this kind of household can be considered as a form of "subsistence food firm", having a larger interference with the food production market, since the members of the family coming from urban area also prefer to obtain these products from relatives rather than from retailers (Bleahu, 2002).

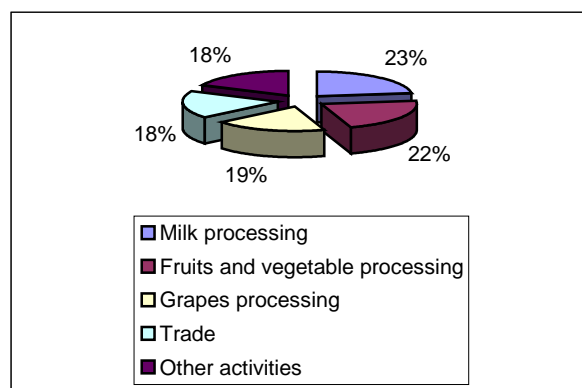


Fig. 1. Non-agricultural activities carried out at national level in Romania

At Romanian national level, milk processing is the main non-agricultural activity (23%), followed by fruit and vegetables processing (22%), grapes processing 19%, trade 18%, and other activities (Figure 1).

### Review of Axis 1 and Axis 3 of RDP in Romania

The food industry in Romania already experienced small growth increases. However, Romanian agriculture is characterized by poor agricultural infrastructure, weak farm structures, very fragmented land ownership and low investments in new technology. In this regard, the RDP objectives are to improve the competitiveness of the agricultural and forestry sector, to improve the environment, the

countryside and the quality of life in rural areas and encourage diversification of economic activity. In order to achieve these goals Romania dedicated 43% of RDP funds for Axis1, yet the percentage is different in the case of Axis 2 and Axis 3 (Figure 3). This means that Romania gives more importance to wider rural development in terms of financial allocation of RDP. This might be also in line with the level of agriculture development, level of biodiversity, and population and income disparities in the country.

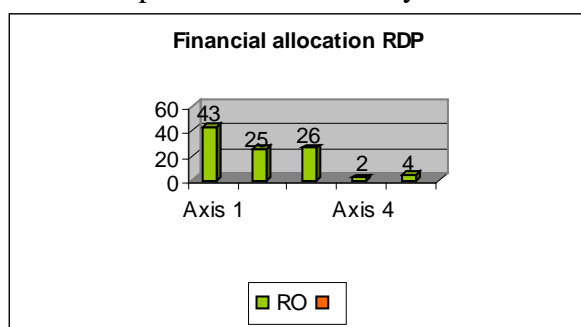


Fig. 3. RDP budget allocation in Romania

As regards Axis 1, Romania opened so far 6 measures respectively (measure 112,121,123,125, 141 and 142). Nevertheless, the number of projects submitted up to present, under measure 142 “ Setting up producers’ groups” there were only 9 applications submitted and out of these only 3 contracts were signed, representing less than 1% of the allocation committed for this measure (Table 3). It seems that association is still a very difficult issue among Romanian farmers related to past experience and bad history.

Table 3: Applications submitted, contracts signed and % of financial absorption by measures, Axis 1

	No of applications submitted and selected)	The number of contracts signed 2007-2010	The amount of allocation paid 2007-2010	% of money paid from allocation committed for 2007-2013
AX 1	11446	10148	1125251733	28%
112	2809	1758	37105035	11%
121	1591	1524	528301601	52%
123	784	717	513658386	47%
125				0%
141	6262	6146	46095000	10%
142		3	91711	0.07%

Source: calculations based on data from the Paying Agency in Romania

The total allocation for Axis 1 represents 4.024 mil euro. Romania absorbed only 11% of the financial allocation for setting up young farmers. Table 2 also reveals that until July 2010, in Romania there were no projects submitted under measure 125 “Improving and developing infrastructure related to the development and adaptation of agriculture and forestry” although the Water Users’ Association should have used this opportunity and apply for improving the irrigation system. As regards measure 141 “semi-subsistence farms” we can notice that semi-subsistence farms represent 10% of total financial uptake. Measures 121 and 123 were very successful in Romania in terms of financial uptake, with 52% and 47% respectively of money absorbed. However, one can notice that only 1524 of contracts were signed under measure 121. That means that only a smaller number of farmers in Romania were modernizing their agricultural households but they were using a larger percentage of money (either by buying expensive technology or by making very large investments), which leads to the conclusion that this situation is quite disproportionate because it does not reach the mass of farms. For measure 123” Adding value to agricultural and forestry products” the financial uptake is quite high and also the number of contracts signed is higher. This measure could contribute to increasing the value added of agricultural produce.

The table below presents the number of applications and the contracts signed including the percentage of financial absorption until July 2010 under Axis 3, in both countries.

Table 4: Applications submitted, contracts signed and % of financial absorption by measures, Axis 3

	No of applications submitted 2010 (received and selected)	Number of contracts signed 2007-2010	The amount of allocation paid 2007-2010	% of already paid money from allocation committed for 2007-2013
AX 3	2124	1310	1036862517	42%
312	904	529	73690791	19%
313	634	454	80379883	15%
322	586	327	882791843	56%

Source: calculations based on data from the Paying Agency in Romania

The total allocation for Axis 3 represents 2.473 mil euro for Romania. Table 4 reveals the level of absorption of funds for this axis. So far, Romania absorbed 42% of funds of this axis. The highest proportion of financial uptake in Romania, i.e 56%, is under measure 322 "Village renewal and development, improvement of basic services for the economy and rural population, conservation and upgrading the rural heritage". The support for the creation and development of micro-enterprises under measure 312 is also quite high in Romania, respectively 19%. Table 5 presents the level of the total public expenditure per axis in Romania. It must be specified that in Romania there are 3.8 mil individual households which are not eligible for subsidies, which otherwise will significantly diminish this indicator.

Table 5: RDP 2007-2013 total public expenditure per unit in Romania

	Indicator	
Axis 1	Total public expenditure, EUR per eligible farm	3610
Axis 2	Total public expenditure, EUR per UAA hectare	247
Axis 3	Total public expenditure, EUR per rural inhabitant	256
Axis 4	Total public expenditure, EUR per rural inhabitant	24

Source: based on RDP in Romania

In total public expenditure, the funding per rural inhabitant is quite low in comparison with other new EU countries. This might be explained by the fact that in Romania the rural population represents 45% of the population, i.e. about 9.4 mil inhabitants. At the same time the financial allocation for Axis 3 in Romania balances the amount for this indicator.

As regards the diversification level and the number of new jobs created in Romania, it is expected that about 175000 new jobs will be created mainly in the processing sector and the creation of new micro-enterprises, which can lead to an improvement of income diversification and business development by carrying out non-agricultural activities. However, there is a strong need for investments in production activities especially in milk producing and fruits and vegetable production as many processing companies resulted following SAPARD or RDP investments are confronted with shortages on

row materials supply and many times they have to resort to imports.

Table 6: The level of investments and the number of expected jobs created in Romania

Measure	Investments Mil Euro	SAPARD experience regarding the creation of new jobs per 1 mil Euro invested	Expected new jobs
121	1.349	25	33725
123	2142	50	107100
312	1060	20	21200
313	76	20	3520
322	1566	5	7830
Total	6293	Na	173375

Source: based on RDP in Romania

Overall, the job creation expectations are quite low compared to the need of jobs. The creation or maintenance of about 170000 jobs is not a large number compared to the expected loss of jobs from 2.6 million in 2004 to 1.5 million in 2013.

In Romania, it is also expected that the investments will contribute to safeguard the existing jobs and to create new jobs, but based on the experiences from the past and present programs, one cannot expect high numbers of jobs from this side. The figures in table 6 outline the tendencies to be experienced in Romania and based on the experience of other New Member States, and similar to what the Old Member States have experienced over the last 50 years: a continuous process of employment diminution in the primary sector and a parallel need to establish new job possibilities in other sectors, also in rural areas. As shown by the results of different surveys, the main issues in Romanian agriculture are: a very large sector of subsistence and semi/subsistence agriculture (made up of small individual holdings), poorly equipped, with a relatively low yield, making an incomplete use of the resources, work and using most of the production for their own consumption. This situation is counterweighted by the large commercial holdings, made up of concessional or rented plots (covering more than half of the area), which are relatively well equipped, with high yields, but which still do not use the land to its true potential.

The level of investments so far shows that there is a need to modernize and raise the efficiency of the existing farms according to

EU standards. Also, there is a need for rural credit cooperatives to help co-finance the businesses in agriculture which are eligible and can benefit from the RDP financing.

## CONCLUSIONS

The comparison of the agricultural sector indicators and of the rural development program is mainly focused on Axis 1 and Axis 3. There is a certain degree of development of entrepreneurial activities on agricultural households in Romania, but the entrepreneurial spirit is still low. The level of entrepreneurial spirit is incipient and is mainly focused on processing of agricultural products. In this context, it might be noticed that the financial allocation of the rural development program in Romania gives more importance to Axis 3, respectively to wider rural development aspects.

Concerning Axis 1, it seems that there is an unbalanced situation among the relative small number of farms who made extremely large investments in Romania. A better balance also seems necessary between the financial absorption for investments on agricultural households (Measure 121) and the financial investments in processing (Measure 123). The financial absorption for setting up young farmers is not very high which does not open up a better perspective for our country in terms of the long run development of the sector.

It should be mentioned that in Romania, the measure on producers' groups has been almost unsuccessful so far, because only three contracts were signed with a financial absorption of less than 1%. At the same time, the lack of success of measure 142 with the Romanian farmers can be also explained by the farmers' reluctance to cooperate. As regards Axis 3, Romania has a quite good rate of funds absorption, i.e. 42%. This represents quite a satisfactory absorption rate in our country.

As one could see, at the mid-term implementation of the program, there are several challenges and priorities ahead. To further support structural change and rural diversification, the key aspects for support are a better balance between different measures

within the axis when projects are submitted and contracted, more facilities in terms of eligibility criteria and more information and awareness among farmers and local administration, including improved access to credit. In terms of new business creation, the expected results are quite important in Romania, which is confronted with a large number of rural populations. However, older farmers are unwilling to withdraw from agriculture, as this activity is the main income source for them.

In this way there is a need to make changes both in the production and market structure of the Romanian agriculture and business development sector in order to overcome low price competitiveness, and lack of supply of raw material, and marketing competitiveness and fairness.

Another recommendation is to increase the number of farms and agri-food units eligible for RDP funds. Rural area development and land consolidation could be aided by a pension supplement for those above retirement age, who agree to release their land to allow an accelerated restructuring of the sector or taxes imposing. The development of infrastructure, development of human resources, improving the access to markets and competitiveness of products are other key elements in rural area development. An important aim is also encouraging the domestic investments in small and medium sized production and processing firms situated in rural areas but taking into account the balance between demand and supply of raw material. Also, there is a need for an increase of the number of investments and not the volume of the investments following a step by step strategy within farms and processing companies.

## REFERENCES

- [1] Bleahu A, Janowski M. (2002) Rural Non-Farm Livelihood Activities in Romania: A Report on Qualitative Fieldwork in two Communities
- [2] Borlovan I., Sambotin L., Coroian L., (2010) Role of public administration in rural development through the European funds in Management of durable rural development", Agroprint Publishing House, Timisoara

[3] Cretu D., Iova R., Neagu C., Dumitra C., (2009) Development of Agricultural spirit by leadership in the Competitiveness of Romanian Agriculture in the European Integration Process, Ars Acdemica, Bucharest

[4] Lepadatu C., L. Iurchevici (2009), Environmental Impact Analysis on the sustainable development of agricultural holding in the Competitiveness of Romanian Agriculture in the European Integration Process, Ars Acdemica, Bucharest

[5] Mateoc-Sirb (2009) The importance of Regions in the Regional Development Policy of the European Union in Agricultural Economics and Rural Development, Ed. Academiei Romane

[6] Todaro Michael P., Smith Stephen, (2006), Economic Development – Pearson Education Limited

[7] xxx. Rural Development Program in Romania: [www.maap.ro](http://www.maap.ro)

[8] xxx. Rural Development Program in Lithuania: [www.kaimotinklas.lt](http://www.kaimotinklas.lt)

[9] xxx. Other gainful activities: pluriactivity and farm diversification in EU-27; European Commission, Directorate-General For Agriculture And Rural Development

Directorate G. Economic analysis, perspectives and evaluation, G.2. Economic analysis of EU agriculture, Brussels, June 2008, LTB D(2008) 17488

## USE OF RENEWABLE ENERGY AS A WAY TO REDUCE COSTS AND CONTRIBUTION TO SUSTAINABLE DEVELOPMENT AT REGIONAL LEVEL

Silviu BECIU<sup>1</sup>, Victor OLTEANU<sup>2</sup>

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine, Bucharest, 59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40, 0723165907, Fax: + 40 21318 28 88, E-mail: beciu\_silviu@yahoo.com

<sup>2</sup>Institute of Research and Development for Agrarian Economy Bucharest, street Marasti no 61, sector 1, CP 011464 Romania, E-mail: olteanu.victor@yahoo.com

*Corresponding author* : beciu\_silviu@yahoo.com

### **Abstract**

*Gradual but irreversible, exhaustion of fossil fuels existing on earth makes renewable energy, potential energy derived from resources such as water, wind, solar, biomass and ocean energy, to become the alternative to create new ways to implement an sustainable development, improving living standards and creating energy independence. Increasingly more countries began to adopt policies to encourage use of renewable energy sources and measures of their production for use as large scale. Since 2007 was approved by Romania's energy strategy for 2007-2020 which aims to meet the energy needs both now and in the medium and long term, at a price as low as suitable for a modern economy market and a high living standard in terms of quality, security of supply, while respecting the principles of sustainable development. Starting from this premise, in this article we try to develop a green energy profile, suitable for North-Eastern region of Romania that will complement ongoing efforts to create a regional sustainable development policy.*

**Keywords:** *clean energy sources, energy independence*

### **INTRODUCTION**

To understand the concept of renewable energy and the need to implement an alternative system of production, which have to be complementary to the traditional and have to replace it gradually in the near future, we start from the definition of renewable energy: "Renewable energy refers to the energy which comes from natural resources such as sunlight, wind, rain, tides, and geothermal heat, which are renewable (naturally replenished)" [1]. Given the current situation in which non-renewable fuel prices have nearly doubled in the last two years, their physical limitations, high pollution levels resulting from the extraction process and not least their use, lead us to think of search of alternatives for energy needs. The first attempts to use alternative energy "green energy" dates from the early twentieth century, and since then due to technological expansion and increase awareness on alternatives, it had a far upward development.

In Romania, the first steps towards alignment with the european standards regarding implementation and use of green energy has been made with the approval of government decisions "Decision on the approval of Romania's energy strategy for 2007-2020" which has the following main objective: „The overall objective of the energy sector strategy is to meet energy needs both now and in the medium and long term, at a price as low as suitable for a modern market economy and a high living standard in terms of quality, safety the food with the principles of sustainable development". [2]

### **MATERIAL AND METHODS**

One of the most viable alternatives to conventional energy, which we have at our disposal, and energy is generated by the Earth's crust known as "geo-exchange" and ensure the transfer of heat into the soil and from the soil. Many people associate this type of energy geysers or volcanic activity, but in

practice it with a more modest, by withdrawing or introducing heat in the Earth's crust through various processes, such as:

- Extracting horizontal level, 1.5 - 2 m depth;
- Vertical extraction at 10-250 m depth;
- Energy piles at 5 – 45 m depth;

To achieve these processes are used from heat pumps. A heat pump is a heating and / or cooling using heat stored in the earth to heat or cooling the houses.

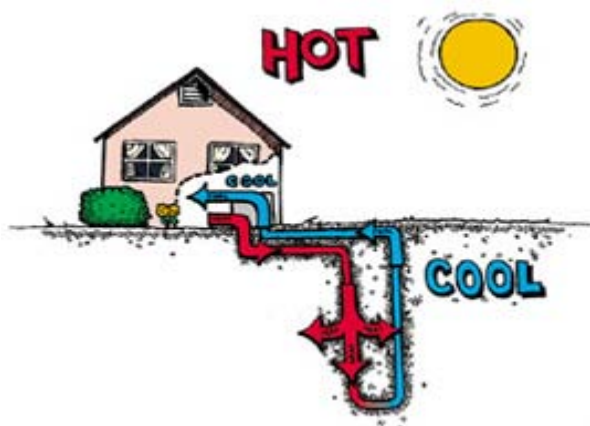


Photo 1: Geo-exchange heating system[3]

They transfer heat from the ground in winter home, and vice versa in summer transfer takes place from the house toward land. Unlike a boiler, a heat pump transfers heat, not produce it. Heat pumps are known as geo-exchange systems and should not be confused with geothermal heating, possible only in areas where the ground due to hot steamy underground hot springs.

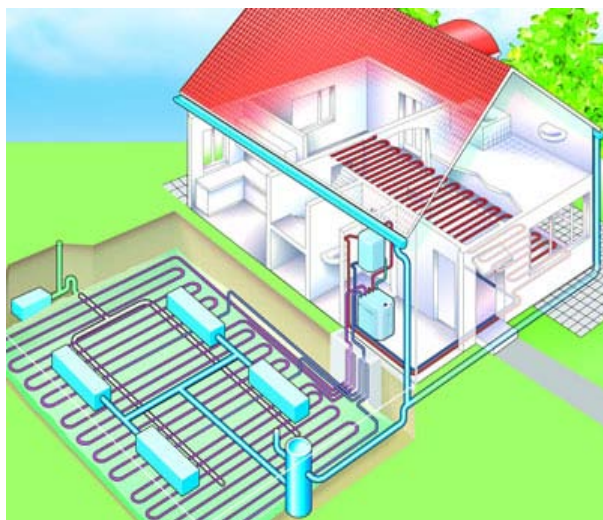


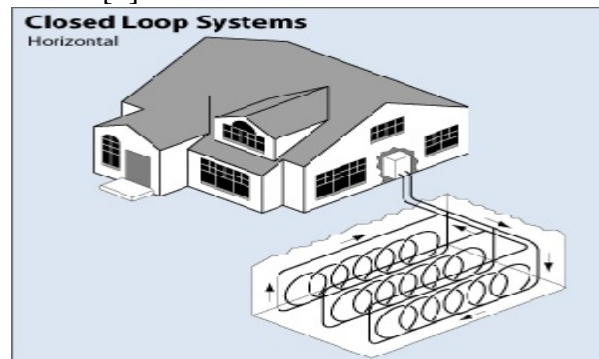
Photo 2: SYSTEM Aqua Gen Kollektor used in heat pump that uses flat-type collectors STIEBEL-Eltron [4]

**Functioning of Geo-Exchange systems.** The system is composed of a loop of high density polyurethane pipe buried in the ground vertically or horizontally, depending on the type of elected assembly, through which a liquid (organic antifreeze or salt water) allows the exchange of heat. The closed loop systems are more used than open loop systems because they can be installed almost anywhere. In the closed loop systems the fluid from inside never comes in contact with the environment and this type have a continuous ground loop.

**Installation types:**

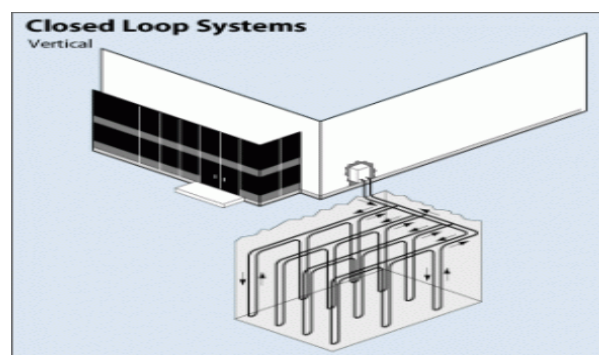
**Horizontal closed loop system.** The horizontal loop installation is with a few exceptions, the most economic. Horizontal loops can be used for newly constructed homes or also for commercial buildings. A horizontal system is using a number of trenches, in which the piping can be configured as following: a simple one, made from a single pipe; or more complex, that are made from multiple pipes disposed in a narrow or wider trench.

Foto 3 [5]



**Vertical closed loop system:** It is used when the land area available is limited, and a vertical loop may be installed for the geothermal piping. This system is also efficient when the land is too rocky.

Foto 4 [6]





Even vertical loops are more expensive than horizontal loops, they are considerably less complicated and less piping is also required because the earth's temperature is more stable at depth.

## RESULTS AND DISCUSSIONS

At the regional level must be analyzed and evaluated the major renewable resources and existing opportunities to use them. In regions where wind or other renewable energy sources do not have a high potential, we must take into account the use of geothermal energy. As geothermal energy in representing now approximately 1% of the total energy produced and captured on the Earth and it is considered that the geothermal potential of the planet is about 4000 times global energy needs, this must be an energy source that should be taken more seriously into account in coming years.

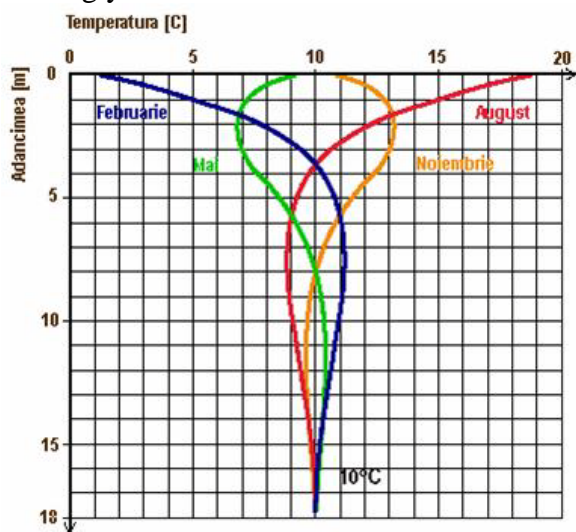


Foto 2 Variation in soil temperature level at the surface crust[4]

Unlike air pumps, heat pumps are more efficient (25-50% less electricity consumption for heating or cooling), have lower maintenance costs, are reliable (25-50 years beyond warranty periods for the installation of earth and 20 years for the pump itself) and not dependent on outside air temperature. A disadvantage is significantly higher installation costs compared to an air pump, but costs are amortized in 5-10 years. This system is based on the fact that the

temperature in the ground at few feet deep is fairly constant throughout the year. Starting from the principle of thermodynamics, heat transfer is the meaning of a body with a higher temperature to a lower body temperature and never vice versa. Advantages and disadvantages that arise in using the system of heat transfer from / in the ground are as following: Advantages: does not require constant maintenance; can be used safely; it can be deployed and used anywhere. Disadvantages: limiting the capacity to the installed modules.

### Criteria for system design

The issues that must be followed in order to design a geothermal system are: performance, reliability, safety in operation, cost efficiency. It is preferable that the way systems are designed to be as simple as this helps to reduce defects that may occur during their operation. A larger optimization of these systems on one hand aims to minimize operating costs and on the other side to compensate for losses in electricity generation process. Must be taken into account that there is a pretty big difference between surface elements and underground system on their life.

Circulation pump, and some items will require replacement at the surface two or three times in the life of the underground installation. The underground installation will therefore be forced to use two or three different generations of pumps (the difference is on the appearance of new performance models). The systems are designed so as not in need of maintenance throughout the life of the plant, therefore it is important for an effective system: the way it is designed, the way in which checks are carried out general quality control, the use of certified and tested components. To operate the facilities safely be observed in all assembly instructions provided in the manual installation and placement of billboards near the main system components operating instructions and information on hazards that may occur.

### **Cost efficiency**

Cost Efficiency it refers in this case at cost of system implementation and functioning with the lowest price and doing this effectively.

This is very important in the implementation of systems but is also a double-edged phenomenon. Cost effectiveness in implementing of these renewable energy systems means avoiding unnecessary costs, not meaning to reduce overall costs by reducing the quality of materials used in the installation, the depths required for proper or optimal result by passing over certain stages of the design plan.

### **CONCLUSIONS**

For large scale use of these systems, it is necessary in a first stage to promote their facilities and the advantages they possess. Also have to be identified target groups of consumers who might use it in a pioneering first stage. Also have to be identified the regions in which these systems are most applicable, namely those areas where the use of these energy systems is favorable in terms of cost, compared to other energy systems that can be used locally and regionally. Each component of the system is important. Choosing the right components is needed to achieve the required efficiency. Using these unconventional alternative energy systems will contribute at reducing pollution along with CO<sub>2</sub> emissions and reduce costs by creating energy independent with a high degree for homes and other domestic facilities. For this to happen it is necessary to combine the energy systems. The degree of efficiency of such a system increases if is used in a house well insulated, if is combined with an under floor heating and cooling system, the difference in energy required for heating water or cooling is achieved through a solar or wind system.

### **ACKNOWLEDGEMENTS**

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### **REFERENCES**

- [1] Wikipedia, enciclopedia liberă
- [2] Monitorul Oficial al României, partea I, nr. 781/19.XI.2007
- [3] Foto 1 - <http://www.energeia.ro/energie-geotermala/pompe-caldura/pompe-de-caldura-geotermale-94/>
- [4] Foto 2 <http://www.climatherm.ro/termice/Sisteme-cu-pompe-de-caldura-97.html>
- [5] Foto 3 <http://ecolocalizer.com/2009/04/10/bye-bye-billing-an-italian-example-of-zero-cost-house/>
- [6] Foto 4 [http://blog.4rev.net/2008-07/geothermal-heat-pump-systems/geothermal-heat-pump\\_closed\\_loop\\_system\\_vertical/](http://blog.4rev.net/2008-07/geothermal-heat-pump-systems/geothermal-heat-pump_closed_loop_system_vertical/)

## REPRESENTATIVITY OF ENTERPRISES COOPERATIVES IN STATES OF THE E.U. 27

Florentin BERCU<sup>1</sup>, Marius MICU<sup>1</sup>, Irina IONESCU MĂLĂNCUȘ<sup>1</sup>

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine, Bucharest  
59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 722 15 69 61,  
Fax: + 40 21318 28 88, E-mail : [florentin\\_bercu@yahoo.com](mailto:florentin_bercu@yahoo.com); [micumariusmihai@yahoo.com](mailto:micumariusmihai@yahoo.com);  
[irina\\_crusgali@yahoo.co.uk](mailto:irina_crusgali@yahoo.co.uk)

*Corresponding author* : [florentin\\_bercu@yahoo.com](mailto:florentin_bercu@yahoo.com)

### Abstract

*The paper aimed to present the evolution of Cooperatives in 2007 in all the countries of the EU. It is based on the statistical data provided by the European region of the International Co-operative Alliance. The data have been processed into the following indicators: the number of cooperatives from E.U., the main sectors of cooperatives from E.U., the number of members from cooperatives, the employees in E.U. cooperatives has continuously increased, so that in the year 2007 there are 147.000 cooperatives, 107.000.000 members and 4.300.000 employees in EU. The figures mentioned are from the 141 direct member organizations of Cooperatives Europe and its 6 European Sector Member Organizations. All EU co-operative member organizations are structured in enterprise federations and have the capacity to consult their member enterprises. As a conclusion, the importance of cooperatives is confirmed by the fact that total turnover of EU agriculture in 2007 was 675 billion euro and 38.5% (260 billion euro) is generated by the cooperative sector.*

**Keywords:** cooperatives, members, employees, evolution, European Union.

### INTRODUCTION

The cooperatives are a very good example of type of company which can have in the same time entrepreneurial objectives but also social ones. Besides about the entrepreneurial policy, the cooperatives play an important role in the agricultural economy for the regions development; while their structure is ideal for the improvement of the work force and of the social cohesion. The cooperatives are, by definition, autonomous associations of united persons voluntarily to accomplish their needs and economical aspirations, social and cultural leading together in controlled democratic companies.

### MATERIAL AND METHODS

In order to characterize the evolution of cooperatives, the following indicators were used: the number of cooperatives from E.U., the main sectors of cooperatives from E.U., the number of members from cooperatives, the employees in E.U. cooperatives. The analyzes in this study are made for the year 2007. The data, collected from The European

region of the International Co-operative Alliance, have been statistically processed and interpreted.

### RESULTS AND DISCUSSIONS

The cooperative organizations, I believe that, through their principles and their values, like the voluntary and opened member statut, the democratic control of the members, the economic participation of the members, autonomy and independence, preparing and information classes, the cooperation of the cooperatives, the care about the community are another type of companies with economic and social objectives. By the promotion of the cooperatives it's respected their immediately benefits and it is relying with the important European policies and objectives especially by the supplying of the solutions in the unsatisfied cases economic or social, especially there where the profitable public and initiations or private are missing.

The cooperatives have demonstrated that are companies that don't delocalize, and are, in the same time, based on the active

participation of the members, and their experience can provide a truly value by the combination of the security with flexibility and contributing to the local development in the internalisation era.

The number of cooperatives has continuously increased from the beginning of their appearance when they were isolated cases to 147.000 enterprises in the year 2007 in all 27 member states of the European Union, as a result of their efficiency all around the glob.

It is presented when appeared the first form of cooperative in all countries of the European Union.[1] (fig.1)

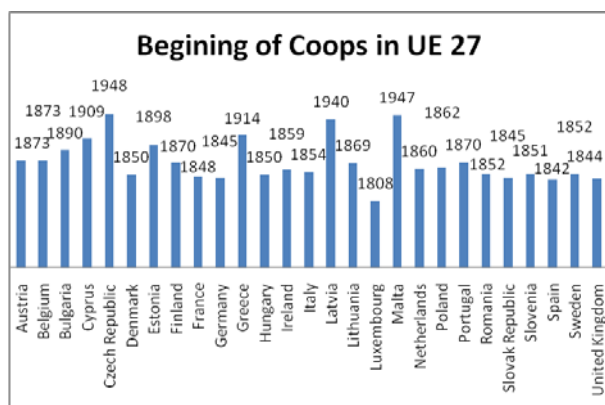


Fig 1. First appearance of cooperatives in E.U. states

This positive aspect of their growth was determined by the ability to clearly differentiate the competition remaining central to effective marketing. And a strong strategy is essential for any organisation seeking to build robust relationships with stakeholders.

The COOP has a clear and powerful statement about the organisation that uses it. It says:

*“This business is different,  
this business is built on values,  
this business is trustworthy”.[2]*

In this section the following table contains an overview of the figures from the 141 direct member organizations of Cooperatives Europe and its 6 European Sector Member Organizations in the EU 27. It gives a picture of the number of co-operative enterprises (separate legal entities), members and employees of these organizations. Out of these 141 organizations, there are 19

intersectoral organizations belonging to 15 different countries.

As the majority of the organizations are representative organization for co-operatives, the data presented refers to the aggregated total number of individual co-operators, enterprises and employees that this organization represents.

Table 1. Representative number of cooperatives, members and employees in E.U. in 2007(thousand)

Nr. Crt.	Country	Enterprises	Members	Employees
1	Austria	1.745	3.168.153	63.884
2	Belgium	271	1.245.822	15.559
3	Bulgaria	1.368	200.411	23.454
4	Cyprus	760	948.841	4.699
5	Czech Republic	1.423	897.9	67.828
6	Denmark	537	1.966.403	69.400
7	Estonia	8.704	410.004	4.810
8	Finland	471	2.957.410	92.059
9	France	21.200	22.463.782	1.040.545
10	Germany	7.462	21.135.000	530.000
11	Greece	6.480	918.892	12.345
12	Hungary	3.044	977.000	96.500
13	Ireland	677	3.189.727	22.669
14	Italy	40.500	11.985.810	968.482
15	Latvia	74	17.33	440
16	Lithuania	320	118.728	7.029
17	Luxembourg	29	5.067	825
18	Malta	59	4.652	238
19	Netherlands	731	3.123.000	165.586
20	Poland	12.320	10.000.000	500.000
21	Portugal	2.944	2.135.000	47.000
22	Romania	1.735	822.422	44.688
23	Slovak Republic	484	622.188	35.613
24	Slovenia	82	18.169	3.234
25	Spain	25.891	5.740.162	340.141
26	Sweden	7.933	3.940.216	101.207
27	U. K.	355	8.177.050	89.087
	<b>TOTAL</b>	<b>147.599</b>	<b>107.189.139</b>	<b>4.347.322</b>

The cooperatives have the following European Sector Member Organizations presented in fig number 2: Agriculture (COGECA), Industry & Services (CECOP), Housing (CECODHAS), Pharmacy (UEPS),

Banking (GEBC), Consumers (EUROCOOP), and Insurance (ACME).

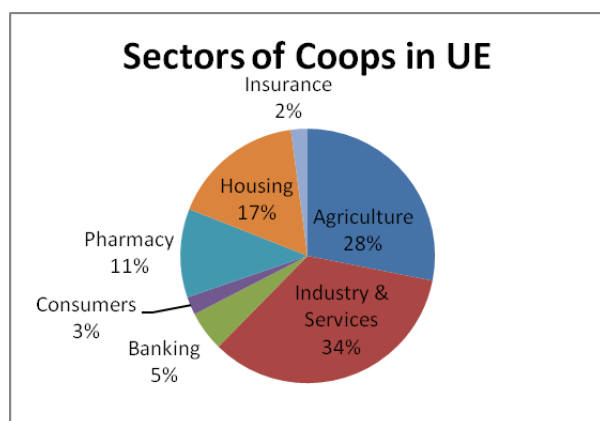


Fig 2. The sectors of cooperatives from Europe (%)

In the agriculture sector are about 40 000 co-operative enterprises employing over 600 000 persons; with 9 million members. [5] CECOP 'members include 29 national federations of co-operative and participative enterprises representing around 60.000 enterprises, 900.000 members, employing 1,3 million workers.[6]

Cooperatives from the Housing sector of cooperatives which represents 15.140 enterprises, with 5, 6 million members exposed in the figure number 3 with the members from other sectors and 38.000 jobs. [3]

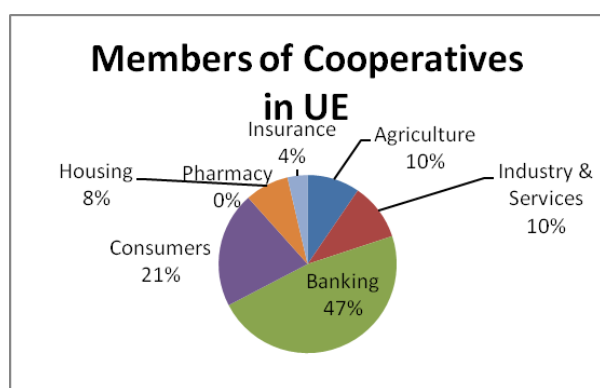


Fig.3 Members of Cooperatives in U.E.(%)

European banking sector, with their 4.500 banks and 60.000 branches, co-operative banks are major actors of local development and range among major employers with more than 720.000 employees. [7]

EURO COOP represents over 3.200 local and regional co-operatives, counting for more than 60.000 sales points across Europe; these sales points range from the local shop (often, the last remaining store for the community in certain remote regions of Europe) to hypermarkets in urban shopping areas. The number of members amounts to more than 22 million consumers across Europe. [4]

The pharmacies sector is present in 9 countries of the European Union. They represent around 2.500 pharmacies.

The Insurance sector of cooperatives from Europe has 57 members in 19 EU countries, which own over 120 subsidiary companies, underwrite 120million insurance policies, and employ over 140,000 people in Europe presented in the figure number 4.

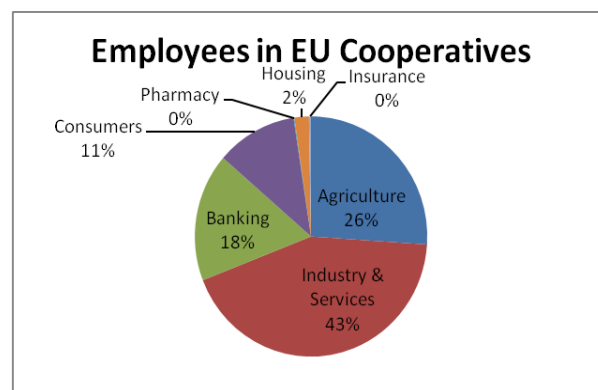


Fig 4. Employees in U.E. Cooperatives (%)

The turnover of the European co-operatives is around €60 billion, exposed in the figure number 5 These co-operatives represent over 50% of the shares of the supply of agricultural inputs and over 60% of shares of the collection, processing and marketing of agricultural products Agriculture, the importance of the sector.

In the EU more than 9 million people work in agriculture. The majority of them are self-employed (56%) or family workers (16.5%), whilst 27.5% have employee status with full-time work dominating (80.5%). Women make up 36% of the total agriculture workforce and account for 31% of working time. 93.4% of the workforce has a low or intermediate education level. The majority of enterprises are small-scale. The agricultural sector accounts for 14.2% of total EU manufacturing

output, with €675 billion worth of production. 38.5% of this output is generated by the co-operative sector.

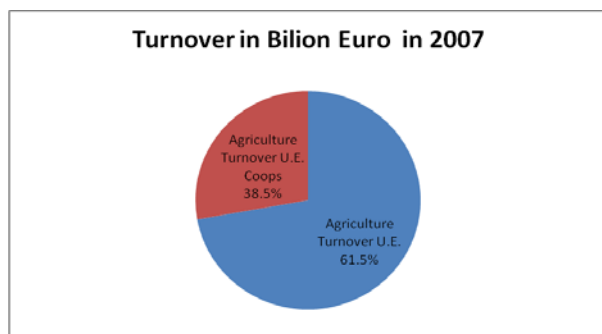


Fig 5. Turnover in Billion Euro in 2007 (%)

## REFERENCES

- [1] "The Role of The Co-operatives in The Social Dialogue in Europe", Outcomes of The Social Partner Program (SPP) – December 2007
- [2] <http://www.coopseurope.coop>
- [3] <http://www.cecodhas.org>
- [4] <http://www.eurocoop.org>
- [5] <http://www.copa-cogeca.be>
- [6] <http://www.cecop.coop>
- [7] <http://www.eurocoopbanks.coop>

## CONCLUSIONS

1. The number of cooperatives has continuously increased until 2007, with a positive impact upon their members because of their immediately benefits.
2. One of the reason which made the cooperatives to develop intensively in all the countries of the EU is that there are *built on values* and *trustworthy*.
3. The cooperatives cover the sectors most important for the EU people such as: Agriculture, Industry & Services, Banking, Housing, Consumers, Pharmacy and Insurance.
4. In all EU member states these co-operative member organizations are structured in enterprise federations and have the capacity to consult their member enterprises.
5. From the total turnover of EU agriculture in 2007 (675 billion euro) 38.5% (260 billion euro) is generated by the cooperative sector.

## ACKNOWLEDGEMENTS

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## ECONOMIC TRENDS OF AGRICULTURE IN ROMANIA

Cristina BURGHELEA<sup>1</sup>, Corina – Maria ENE<sup>1</sup>

<sup>1</sup>Hyperion University, 169 Calea Calarasilor, Bucharest, Romania, Email: [crystachy@yahoo.com](mailto:crystachy@yahoo.com), [corina.maria.ene@gmail.com](mailto:corina.maria.ene@gmail.com)

### Abstract

*The purpose of this article is to analyze the degree of implication of the agricultural sector in the national economy. Its development highlights once again its increased ability to cope with fierce competition in the specialty market by offering products that meet quality standards. Agricultural development should follow, therefore, the limits of endurance and regeneration, the nature of time and space, only in this way, the effect of agricultural production and purpose of rational use of natural resources, will find expression in raising living standards. Based on the national plan for agriculture and rural development, by attracting investment in our country, Romania moved to modernize existing units and the establishment of new units as required by the European Union in an effort to reduce trade deficit in agriculture.*

**Corresponding author:** [crystachy@yahoo.com](mailto:crystachy@yahoo.com)

**Keywords:** *coherent and cost balance, the dynamics of agricultural production, agricultural economic outlook*

### INTRODUCTION

Agriculture represents for Romania a basic economic activity in view of rich endowment with specific inputs. Thus, at least in the medium term, if not run, agriculture will remain an important branch of the Romanian economy.

Of those totals 23.8 million hectares as Romania, the country's agricultural area is 14.7 million hectares (61.7%), of which 9.4 million ha is arable land. In Europe, Romania is ranked as an agricultural area in July (after France, Spain, Germany, Poland, Britain and Italy) and the arable land in 5th place (after France, Spain, Germany and Poland).

Favoured by geographical position, proportional relief, favourable climate, livestock and crop production have been one of the main activities of the Romanian people since ancient times. Hundreds and hundreds of years peasantry constituted a major social force in society, to "boom" urbanization, techs and development of industry and services. However, concern for the agricultural sector the government should not have underestimated since, and today, make the food more than 90% of the population and is the only branch that creates gross primary substance whose value increases about 3 - five times from food processing and light industry.

Final consumption of population (households) is supported by agriculture both directly, through agricultural products reach the market in the rough, and indirectly through processed products of convex branches. Moreover, under a high percentage of rural population, agriculture supports most of the self-consumption. By integrating into the European Union and Common Agricultural Policy, we expect this component of self-consumption to be reduced significantly increase "visibility in the market of agricultural production" and hence its contribution to GDP.

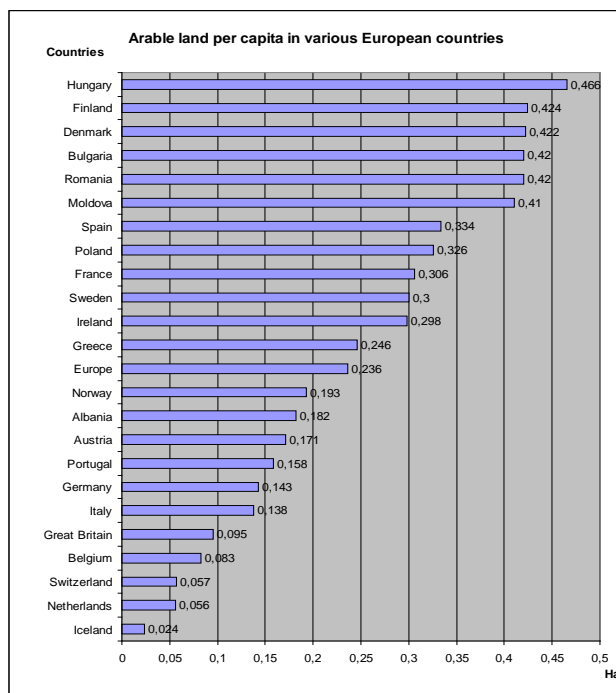
Romania ranks the first places in the EU on the possibility of practicing diversified agriculture, with significant potential advantages for cultivation, almost entirely of wild plants growing in Europe, as well as livestock.

In Europe, Romania ranks 6 on agricultural land that is per capita arable land on the 5th and 7th place in terms of pasture area (Fig. 1). The ratio of the country's arable land and population means that each assigned to about 0.42 ha per capita arable land, a higher value of many European countries and almost double compared to the European average of 0.236 ha per capita.

In other news, the restructuring and privatization of land ownership and has had

an impact on the agricultural sector, leading to urban population migration to rural areas and reinforced the process of returning land to former owners or their descendants.

Throughout the transition period, agriculture has played a very important social role, acting as a buffer against the effects of occupational socio-economic transition, absorbing a significant part of the labour force of urban industries.



Source: FAO production Yearbook vol. 57/2008, Statistical yearbook of Romania[7]

Fig. 1. Arable land per capita in various European countries

Currently, the question regarding the agricultural sector in Romania is the high number of subsistence farms. To stimulate the transformation of peasant households into commercial agricultural farms, building and strengthening the middle class in rural areas were taken to stimulate investment in rural areas, encouraging their participation and skills development banks to lend to agriculture.

Moreover, employment in agriculture has a high degree of aging, characterized by a high proportion of people aged between 60-70 years with a low power work. With the opening of borders, many of those working in agricultural sector especially temporary

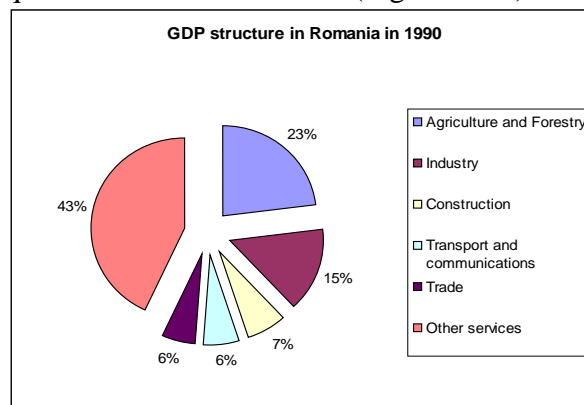
migration solution for a high income, so that young workforce has suffered.

However, the agricultural working population in Romania is six times higher than the EU average, while the share of agriculture in GDP is about 11 times higher in our country than in Europe. Arguably one of the main problems in the Romanian agriculture is an acute shortage of capital.

The main instruments by which government can address the market distortions arising are tax free (tax) and subsidies. By intervening in agriculture, the government aims: optimizing the correlation between property forms and attributes of ownership, antitrust regulators, relating to prosecution of restrictive practices on entry and exit to / from the market and monopolies, restrict undesirable effects created by moral hazard, asymmetric information and adverse selection, optimal redistribution of income among the actors in agriculture etc.[1].

## MATERIAL AND METHODS

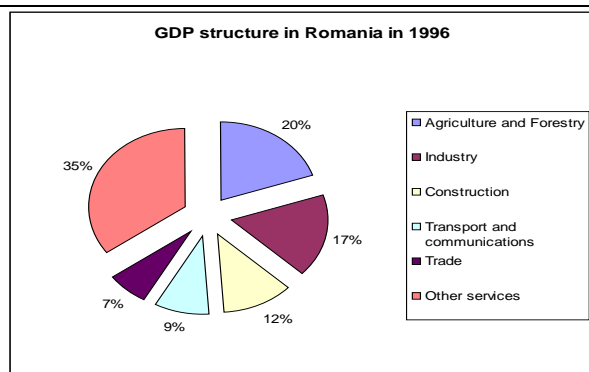
In Romania, the share of gross value added in agriculture in total GDP has been fluctuating around a long term downward trend. At the beginning of the transition to a market economy, agriculture represents about one quarter of Romania's GDP (Fig. 2 and 3).



Source: Eurostat[6]

Fig. 2. GDP structure in Romania in 1990





Source: Eurostat

Fig. 3. GDP structure in Romania in 1996

After the first years of the transition period, the share of agriculture in GDP decreased to about 20% of GDP[5].

After a decade of transition, in 2000, amid bad weather, a sudden and significant development of the service sector and a revival of industrial production, due to successful privatization, the share of agriculture in GDP is reduced to 13%.

After a period of sharp economic growth (2000-2006) the contribution of agriculture to the GDP has not declined too much, Romanian agriculture reduce its contribution to GDP below 10%, amounting in 2006 to about 8.8% . Although the share of agriculture in GDP is twice the EU level, where the average is 4%, this result is important and draws a warning from the perspective of reducing the contribution of agricultural supply shocks to fluctuations in GDP in terms of weather conditions becoming more unstable.

In recent years, agriculture has made significant changes in value of the share in GDP. In 2007, however, has reached a critical threshold, only 5.7% contribution to GDP and this is explained by the calamities that have reached our country this year and led to a production well below expected levels.

Year 2008 came with a high GDP growth and a high contribution of agriculture. This year the rate has reached 6.6%, a significant increase, especially as I say, in the context of GDP growth [2].

Year 2009 was again a decline in GDP and also the agricultural sector. Its contribution to GDP declined to 6.6%, an explanation for this decline as the global economic crisis, which

affected all areas of activity in Romania. Nationally, agriculture is an important branch of the Romanian economy.

The contribution of agriculture, forestry, fisheries in gross domestic product stands at around 6% of GDP and the EU Member States stands at about 1.7%.

Table 1. Share of agriculture, forestry, and fisheries in GDP ( Ron Million)

GDP	2007	2008	2009	2010* 1.I – 30.VI
Agriculture, hunting, forestry, fisheries	23 992.2	34 448.2	30 768	6 911.7
<b>GDP TOTAL</b>	<b>416 006.8</b>	<b>514 654</b>	<b>491 273.7</b>	<b>211 414.8</b>
% of GDP	5.8	6.7	6.3	3.27

Source: Statistical yearbook of Romania 2009

## RESULTS AND DISCUSSIONS

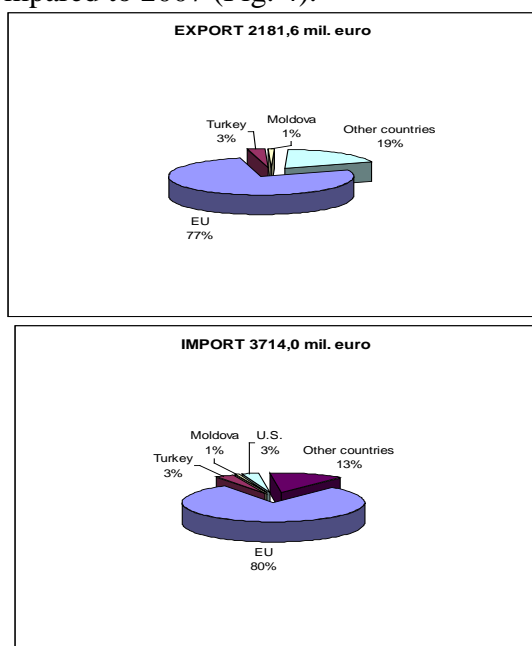
On the other hand, Romania faced problems in the agricultural sector's contribution in terms of net exports. Including forestry and hunting, the export contribution to the Romanian agriculture is very low: 2.55% in 2001, 1.91% in 2004 and 2.19% in 2006. Similarly, Romania is a problem in terms of imports. In this sense, the past 10 years our country has had to deal with the deficit of trade balance of agricultural products, having, on average, a figure which stands at over one billion Euros annually[3].

Table 2. Trade balance ( Euro Million )

Specification	2007	2008	2009	2009 compared with 2008	2009 compared with 2007
<b>EXPORT</b>	<b>1 100.7</b>	<b>2 120.6</b>	<b>2 181.6</b>	<b>61.0</b>	<b>1 080.9</b>
Intra UE	770.4	1 385.3	1 681.6	296.3	911.2
Extra UE	330.3	735.3	500.0	-235.3	169.7
<b>IMPORT</b>	<b>3 255.1</b>	<b>4 190.3</b>	<b>3 714.0</b>	<b>-476.3</b>	<b>458.9</b>
Intra UE	2 357.5	3 317.3	2 982.9	-334.4	625.4
Extra UE	897.6	873.0	731.1	-141.9	-166.5
<b>BALANCE</b>	<b>-2 154.4</b>	<b>-2 069.7</b>	<b>-1 532.4</b>	<b>537.3</b>	<b>622.0</b>
Intra UE	-1 587.1	-1 932.0	-1 301.3	630.7	285.8
Extra UE	-567.3	-137.7	-231.1	93.4	336.2

There is an upward trend of exports: in 2008 compared to 2007 their value is doubled, and in 2009 over 2008, exports grew by 61 million. Increase in value of exports but failed to offset the deficit created by imports, although their value was reduced by 476.3 million Euros, amid the economic crisis. The trade deficit recorded in 2009 was 1.5324 billion Euros, down by 537.3 million Euros,

compared with 622 million Euros in 2008 compared to 2007 (Fig. 4).



Source: Eurostat

Fig. 4. Romania's trading partners in 2009 by groups of countries

The European Union is the main partner in Romania's agricultural trade, as in 2009, shipments of agricultural products to the EU had a share value of 77% and purchases of EU Member States have held a share of 80% [4].

Table 3. Trade in food products during January-July 2010

NC	Specification	Export		% compared with Jan - Jul 2009
		EU mil. euro	Total mil. euro	
	0	1	2	3
I	Livestock	180	223.3	126.1
II	Vegetal products	309.1	549.8	87.3
III	Animal and vegetable fats and oils	74.4	75.8	154.5
IV	Food, beverages and tobacco	415.9	470.3	122.1
	<b>Total NC I-IV</b>	<b>979.4</b>	<b>1 319.2</b>	

Total Jan - Jul 2010	15 008.8	20 527.3
% NC I-IV	6.5	6.4

Import		% compared with Jan - Jul 2009	Deficit mil. euro
EU mil. euro	Total mil. euro		
4	5	6	7=5-2
500	536.6	85.9	313.3
487.5	641.5	99.5	91.7
92.6	114.9	130.9	39.1
646	847.7	101.1	377.4
<b>1 726.1</b>	<b>2 140.7</b>		<b>821.5</b>

18 802	26 024.8	5 497.5
9.2	8.2	14.9

Source: International Trade Statistical Bulletin no. 7/2010, INS

Trade balance with food products is poor overall. Romania has high potential sectors only live animals, cereals, wine, edible oil, canned fruit. For the balance of trade and export growth, Romania, investment programs implemented in the past to modernize existing units and establishment of new processing units in rural areas by categories of food products.

Romania has suffered of low exports and competitiveness of agro-food products, due to complete failure of food safety standards and environmental protection.

## CONCLUSIONS

1. In recent years, Romania has progressed in terms of agricultural trade deficit, down from 1.8847 billion Euros to 1,373,900,000 Euros. It is noteworthy that the main export-import transactions took place at EU level, thus the supply of agro-food products in 2009 had a value of 77% and the share purchases in EU Member States have held a share of 80%.

2. Although the trade balance continues to be poor, there is a decrease in the difference between the import and export from year to year, a sign of increased competitiveness of agricultural products as a result of the measures imposed by the European Union. This was, of course, the financial support of the European court, by awarding grants to support agriculture.

3. For the balance of trade and export growth, Romania, under the national plan for development of agriculture and rural development investment programs implemented in the past to modernize existing units and establishment of new processing facilities in deprived areas and traditional rural the rural food categories.

## REFERENCES

- [1] Angelescu C., C. Socol, A. Socol, Economic policies, Economic Publishing House, 2009, page 153
- [2] Burghilea C., Trend analysis of the autochthonous agricultural segment evolution, in The economic and ecological dimension of development in the third millennium, second edition, 2010, April 28-29, Bucharest, Supplement of Quality-access to success Journal, Year 11, no.111, 2010, ISSN 1582-2559

[3] Dinu M., Socol C, Marin M., "European economy. Synoptic presentation", Economic Publishing House, Bucharest, 2004

[4] Dona I., "Rural economy", Economic Publishing House, 2000

[5] Zahriu L. (coordonator), Dachin A., Ion R., Popescu A., Poenaru S., "Agriculture under impact of CAP", Ceres Publishing House, Bucharest, 2006

[6] [www.eurostat.ro](http://www.eurostat.ro)

[7] [www.insse.ro](http://www.insse.ro)

## RETROSPECTIVE OF THE AGRICULTURAL SECTOR DEVELOPMENT IN THE CURRENT ECONOMIC CONTEXT

Cristina BURGHELEA<sup>1</sup>, Corina – Maria ENE<sup>1</sup>

<sup>1</sup>Hyperion University, 169 Calea Calarasilor, Bucharest, Romania, Email:  
[crystachy@yahoo.com](mailto:crystachy@yahoo.com), [corina.maria.ene@gmail.com](mailto:corina.maria.ene@gmail.com)

### Abstract

*Geo-strategic position of our country can promote the development of agriculture, which still holds an important position relative to the economy. This paper aims, based on analysis of available data, development of agriculture in Romania and its influence on the economy as a whole, highlighting an important manifestation of macroeconomic fluctuations: gross domestic product. It also analyzes the dynamics of national agriculture and extensive size of the component of subsistence agriculture as a priority to maintain production variation dependence on natural conditions, strongly influenced by the real convergence of the Romanian agriculture confronted with the European Union.*

**Corresponding author:** [crystachy@yahoo.com](mailto:crystachy@yahoo.com)

**Keywords:** economic development, rural area, agricultural area and economic normality.

### INTRODUCTION

With an important geostrategic position, a significant rural area with a population in rural areas representing 45% of the total population of the country, Romania is the second largest agricultural producer in Central and Eastern Europe (after Poland). Approximately 60% of the country is used for agricultural production and about 30% for forestry [1].

Nationally, agriculture is one of the most important branches of the Romanian economy. The contribution of agriculture, forestry, fisheries in gross domestic product stands at around 6% of GDP and the EU Member States stands at about 1.7%.

Table 1. Share of agriculture, forestry and fisheries in GDP ( RON Million )

Gross domestic product	2007	2008	2009
TOTAL	416.006,8	503.958,7	334.231,5
Agriculture, forestry and fisheries	23.992,2	32.566,4	19.220,2
% din GDP	5,8	6,5	5,8

Source: Monthly Statistical Bulletin - Nr. 12/2009

Of those totals 23.8 million ha as Romania, the country's agricultural area is 14.7 million hectares (61.7%), of which 9.4 million ha is arable land. Romania is in 7th place in Europe

as an agricultural area (after France, Spain, Germany, Poland, United Kingdom and Italy) and No. 5 as arable land (after France, Spain, Germany and Poland).

Distribution of land by use of arable land deals show that approx. 64% of the farmland, one third, 4.8 million ha, is occupied by pastures and meadows, orchards and vineyards and is approx. 3%.

Table 2. Distribution of land ( Thousand ha )

Specification	2007	2008	2009
Agricultural area which:	14709,3	14712,4	14705,3
Arable	9423,3	9387,2	9384,4
Pastures	3330,0	3384,3	3380,7
Hay	1531,4	1525,3	1526,7
Vineyards and orchards	424,6	415,6	413,5

Source: Statistical Yearbook of Romania, 2008 [3]

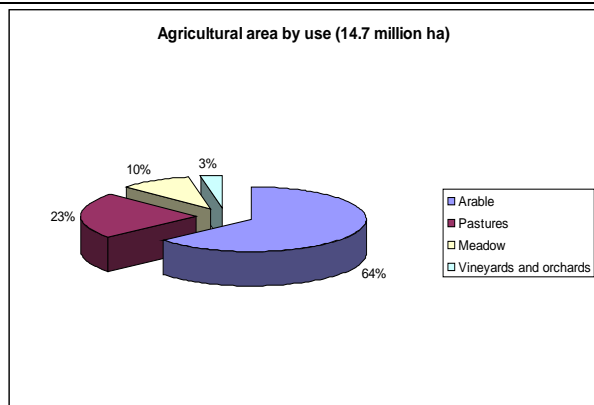


Fig. 1. Agricultural area by use

Source: chart was created by authors using data from the Statistical Yearbook of Romania, 2008

### MATERIAL AND METHODS

Farm situation with legal status, households and areas in their operation is as follows: of the 3,931,350 registered farms in late 2007, 3,913,651 (99.5%) were individual farms, which own 65% of utilized agricultural area, and 17,699 units with legal personality have exploited the remaining 35% of the area.

Average agricultural area used was 3.5 ha/farm 2.3 ha/farm being operated by individual farms on average and 270.4 ha / farm by units with legal personality. There are big differences between the average size of individual farm holdings in Romania and the EU, approx. 19 ha per farm[4].

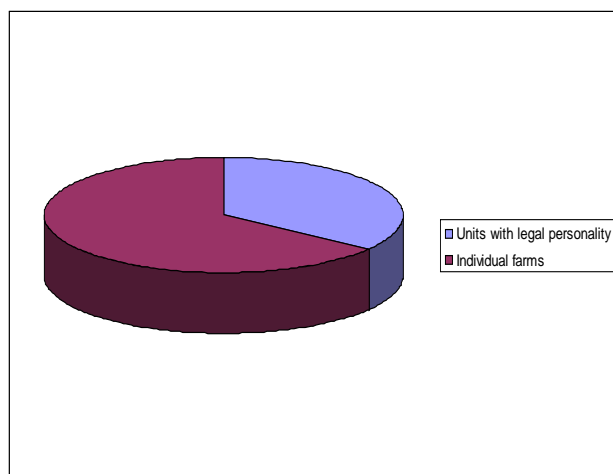


Fig. 3. Agricultural area used

Source: chart was created by authors using data from the Statistical Yearbook of Romania, 2008

Although employment in agriculture population is still one of the largest in Europe,

the share of agricultural population dynamics show a gradual downward trend of it, from 40.9% in 2001 to 29.5% in 2007.

In late 2006, out of a total of 9.313 million persons employed, in agriculture, hunting and forestry were 2.84 million people, which is about 30.5% of total employment. In late 2007, out of a total of 9.353 million persons employed, in agriculture, hunting and forestry were 2.76 million people, which is about 29.5% of total employment.

With regard to the farming population by age, there is an aging workforce in this sector. Thus, over half of it belongs to the age groups over 45 years and the share of population employed in agriculture with over 65 years increased by 2 percent compared with 2006.

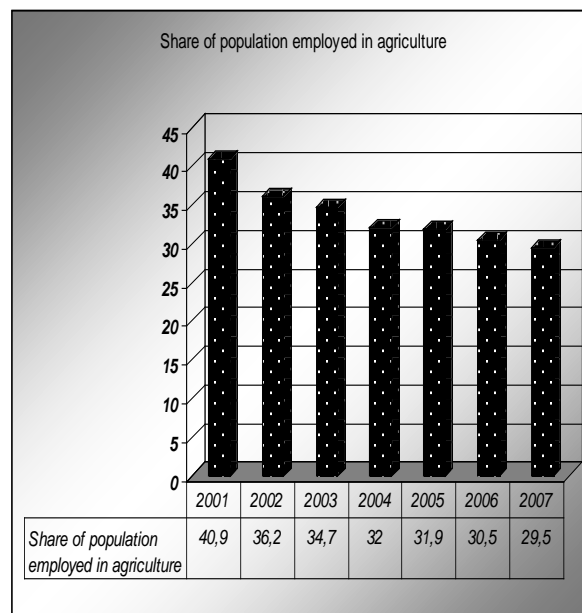


Fig. 4. Share of population employed in agriculture

Source: chart was created by authors using data from the Statistical Yearbook of Romania, 2007, 2008

Table 3. Output of agriculture sector

SPECIFICATION	2007		2008	
	Millions RON	%	Millions RON	%
Vegetation	28723,4	60,2	45242,2	68,3
Animal	18291,6	38,3	20535,7	30,6
Agricultural services	684,8	1,5	716,0	1,1
<b>TOTAL</b>	<b>47699,9</b>	<b>100,0</b>	<b>66993,9</b>	<b>100,0</b>

Source: Statistical Yearbook of Romania, 2008

Organic farming has experienced dynamic development in recent years. Thus, in 2008, the total area cultivated by the organic production method was approx. 221,411 ha, which represents an increase of approx. 13 times the area planted in 2000 and 1.54% compared to 2005. For 2009, the area for organic production is approx. 240,000 ha.

The livestock sector in 2008 has been certified organic livestock growth especially in sheep and goats, an increase of approx. 15 times the annual average for the period 2000-2004 and approx. 14 times the recorded herds in 2005. Processed organic products sector is found both diversifying product range by launching new products and increasing the number of processors to 85 units in 2008 to 48 in 2007.

## RESULTS AND DISCUSSIONS

Comparative analysis of trade in food products during 01.I-30.XI.2009 against the corresponding period of 2008.

Table 4. Trade balance:

Time	01.I-30.XI.2009	01.I-30.XI.2008	01.I-30.XI.2009 in % compared with 01.I-30.XI.2008
EXPORT	2029,4	1945,2	104,3
IMPORT	3403,3	3829,9	88,9
SOLD	-1373,9	-1884,7	

Source: Statistical Yearbook of Romania, 2008

The trade deficit during 01.I-30.XI.2009 euro was 1.3739 billion, decreasing by EUR 510.8 million compared to the corresponding period of 2008.

The European Union is the main partner in Romania's agricultural trade, as during 01.I-30.XI.2009 supplies of agricultural products to the United States had a share value of 77% and acquisitions of EU Member States have held a share of 80%.

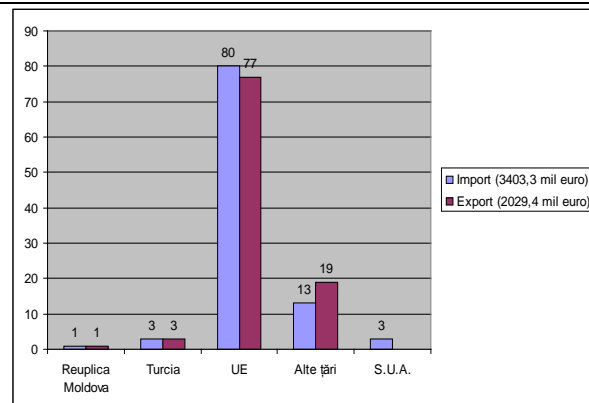


Fig. 4. Trading partners by groups of countries in 01.I-30.XI.2009

Source: chart was created by authors using data from the Statistical Yearbook of Romania, 2008

The rich cultural heritage and tourism potentials offered by a rise in rural incomes provide the premises of the activities in this sector. Although the prospect of EU accession, Romanian agriculture has to march on rural development (the fashionable phrase of the Common Agricultural Policy), the complex issues that lie this process are not understood (the concept of rural development was observed for the first time in a formal program only in 1996).

## CONCLUSIONS

1. If it is to highlight the real convergence of the Romanian agriculture to the European Union should draw up a matrix of SWOT (strengths, weaknesses, risks and opportunities)[2]
2. Strengths: The second largest producer in Central and Eastern Europe after Poland (Romania-agricultural area of 14.8 million hectares), climate and soil are conducive to the development of an efficient agriculture, the potential development of organic farming, using traditional methods no intensive.
3. Weaknesses: the role of "safety class" for people who can not find work in other areas, subsistence agriculture, many small family farms, large share of self-consumption, agricultural market is not fully functional at subsidies low, declining share of agricultural production in GDP was accompanied by a significant increase in the share of agricultural

population in total employed civilian population.

4. Threats and risks for Romania's integration in the field of agricultural land market and poor rental, land market is underdeveloped, representing only 5% of the total potential of this market, poor access to credit, capital investment is calculated as 30% of the EU for Romania to meet European standards, limited access to markets, intermediate consumption is extremely low (-25%) according to extensive agricultural activities, lack of human capital, labour productivity is half the EU average while production costs are higher by about 30%, the percentage of self-consumption 2-fold higher than the level considered normal up to 30% of agricultural output.

## REFERENCES

- [1] Angelescu, C., Ciucur, D., Suciu, M., Grosu, T., Socol, C., Pop, V., *Strategic options for romanian agriculture development*, Economic Publishing House, Bucharest, 2004
- [2] Angelescu, C., Socol, C., Socol, A., *Economic policies*, Economic Publishing House, Bucharest, 2009, p.171
- [3] [www.insse.ro](http://www.insse.ro)
- [4] [www.madr.ro](http://www.madr.ro)

## IMPLEMENTATION STATUS OF ENVIRONMENTAL POLICY IN ROMANIA IN THE CONTEXT OF SUSTAINABLE ECONOMIC DEVELOPMENT

Octavian Constantin BURGHELEA<sup>1</sup>, Cristina BURGHELEA<sup>2</sup>

<sup>1</sup> Printec Group Romania, 44 Constantin Aricescu, 011688, Bucharest, Romania, Email: [octavian.burghelea@printec.ro](mailto:octavian.burghelea@printec.ro)

<sup>2</sup> Hyperion University, 169 Calea Calarasilor, Bucharest, Romania, Email: [crystachy@yahoo.com](mailto:crystachy@yahoo.com)

### Abstract

*European Union environmental policy developed by its location above the national policies of Member States, the main source - or at least as a reference point - theirs. Article seeks to clarify this issue new and difficult, especially for those countries - including Romania - where environment, as theme for politics, has undergone fundamental changes in recent decades. For the countries concerned, the transposition of Community environmental regulations were often one step higher than it would have made their own. It is now clear that environmental issue has become one of the most visible and strong fields. This was partly due to broader changes in how citizens and scientists perceive environmental issues, but also because the EU has become an important independent actor in these changes. The European Community has grown rapidly into a strong supporter of the principles of community and national policy formulation in the idea of protecting and preserving the environment - such as "polluter pays" principle and the precautionary principle - its impact on other players is enormous.*

**Corresponding author:** [crystachy@yahoo.com](mailto:crystachy@yahoo.com)

**Keywords:** sustainable growth, healthy environment, EU acquis, economic balance

### INTRODUCTION

In second Article of the Treaty of the European Commission provide for a "sustainable and balanced growth, but environmental issues were not reported separately and had no political significance in the first two decades of existence of the Community. After the United Nations (UN) organized the Stockholm Conference on the Human Environment (1972), founding of the UN Environment Programme, the European Union political leaders have realized that new initiatives were needed in this direction. During the Paris summit of 1972, U.E. formally recognized the need for environmental policy. Thus, the European Parliament was established a committee on environment and consumer protection and environmental committee. The Environmental Action Programme (1973-1976) were the foundations of the European approach to environmental policy, defending principles such as "polluter pays" principle and the precautionary approach "to achieve

integration and environmental policy. In 1981 was established Directorate General Environment (DG XI), which played a central role in developing the legal system and the institutionalization of environmental issues. The late '70s and early '80s is the period in which it was adopted legislation based on broad areas of environment (water, air, species protection, etc.). The period between 1987 and 1992 led to the completion of a comprehensive EU environmental policies. Single European Act (1987) recognized the environment as a legal competence of the Union, by adding Title VII of the EC Treaty. By 1992, there were not many elements of environmental policy or the protection of nature that are not covered to some extent on EU directives. Treaty of Maastricht (1992) and the Treaty of Amsterdam (1997) continued strengthening environmental priorities by formulating the EU's main missions, namely "a balanced and sustainable development." In accordance with international trends last two action programs have focused on sustainable development, not only on narrow



environmental objectives. In a period of 30 years, the environment has become one of the important areas of EU and in addition, the European community has become a major player in the environmental policy.

At EU level, there are institutions, environmental rules and formal procedures that must adapt quickly to dynamic environmental policy formulation [1]. Together with the European Commission, Council of Europe and European Union Court of Justice, which have roles more or less formal environment, the most important institutions in this respect are the Directorate General Environment (DG XI) and the European Environment Agency. DG XI was primarily designed to develop basic legislation on the environment. European Environment Agency was designed in the late '80s and founded in 1994, working in Copenhagen and is the main source of information for those involved in the development, adoption, implementation and evaluation of environmental policy. Among other lesser-known institutions with expertise in environmental issues include the Committee of the Regions, Economic and Social Committee and the European Investment Bank.

Community *acquis* comprises over 200 environmental directives, regulations and decisions, which are horizontal legislation and sector legislation on environmental protection. Horizontal legislation covers those rules that consider the transparency and flow of information, facilitate decision making, development of civil society and involvement in environmental protection. In contrast, sector legislation refers to the sectors covered environmental policy (air quality, climate change, waste management, water quality, nature protection, industrial pollution control, chemicals, genetically modified organisms, noise, civil protection). All normative documents are developed by the European Commission DGs specific. After the presentation by the Commission draft legislation be adopted by codecision or committee. Proposals for legislation are accompanied by impact assessments or impact studies summary. Currently co-decision

procedure is the following normative acts of environmental protection:

Sustainable consumption and production package consisting of: Action Plan for sustainable consumption and production and sustainable industrial policy (SCP-SIP), proposed Regulation on eco-labelling, proposed Regulation on the audit of environmental management (EMAS), Directive on eco-design, Communication on Green Public Procurement (GPP).

Proposed Directive on: Industrial Pollution (Prevention and Control Directive reformulation integrated pollution), the protection of soil and amending Directive 2004/35/EC, the restriction of the use of certain hazardous substances in electrical and electronic equipment waste electronic equipment (WEEE) - (recast), Stage II vapour recovery during refuelling of cars at petrol stations, protection of animals used for scientific purposes.

Environmental policies should be evaluated in the context of changing patterns of production and consumption. Many policies developed at the community level have failed from the start, or that they were not well designed, whether it were vague or did not take into account the pragmatic aspects of implementing or have not been discussed in detail with key actors etc.. Progressive environmental proposals have often been diluted or rejected during the negotiation process. Despite the sustained efforts of the European Environment Agency, best practices, information, tools, etc. which would contribute to environmental policies apply and therefore more adoptable, are still insufficient. U.E. Standing was a supporter of integrated environmental policy formulation and planning long term, but the actual application of these principles in its policies has proven extremely difficult. And the main environmental policy issues have emerged and are in the Member States. They must implement EU directives, and often fail to do so in a timely and efficient manner, which is a general problem with the whole community.

The claim that the most serious environmental problems have been solved or that it was time for humanity to be more relaxed in terms of

environmental policy, given increasing global economic competition, is completely erroneous, relying at best on an incomplete understanding of specific problems or at worst a cynical belief in the old ideology of unlimited and uncontrolled growth.

## MATERIAL AND METHODS

Environmental issues have added yet another dimension of complexity to the process of Romania's EU accession, our country is in an ecological situation full of contrasts: on the one hand, a single tank of protected areas in regions where ecosystems have preserved, on the other hand, a number of environmental risk areas. Air pollution level was quite high, intensive use of pesticides in agriculture has polluted the soil and water, and the latter were affected by wastewater. Urban waste is another concern, most of which are stored in locations that do not enjoy any environmental system. With regard to industrial waste, although they are subject to relatively strict regulations, the application of these rules is generally inadequate and do not provide adequate protection. Finally, noise pollution affects the quality of urban life.

Romania has adopted relatively late environmental legislation. Although much environmental damage stems from Romania's Communist past, even after the transition to democracy, environmental protection has become a top priority, even though in 1990 he was created the first environment ministry. Basic legislation specifying principles of environmental policy was adopted later. In December 1995 Parliament approved the Law of environmental protection, the basic framework for environmental protection of the country and that the State recognizes the right to a healthy environment and guarantee access to information on environmental quality and the right of citizens to associate in organizations environmental protection and adequate compensation for environmental damage.

During Romania's preparation for accession, there were parts of the European Community legislation into national law to be implemented quickly and found thus that our

country could adopt and implement the entire acquis communitarian in the environmental field until receipt of EU. Although Romania was the only candidate for the European Commission has expressly stated that priority should be given to environmental issues, has adopted a realistic position, enabling our country to harmonize and implement the environmental acquis in reasonable time. Under the treaty of accession, Romania has benefited from various periods of transition on water quality, air quality, and waste incineration. Regarding air quality requirements of Community law had to be implemented gradually during the first three years after accession. The overall objective of recovery and disposal of several types of waste would be achieved by 31 December 2011. By 31 December 2010 Romania had to recycle over 40% of the total volume of waste (with some exceptions for certain categories of waste such as glass, whose full recycling will not be possible until 2013). Different periods of transition have been accepted by the EU in areas where compliance with its standards require most investment from Romania. According to initial studies by the European Commission, the need to comply with European standards of environmental protection requires a financial effort from Romania about 3-4% of GDP, i.e. about 29.32 billion euro by 2018 (last year given that transitional period for implementing all provisions of the environmental acquis communitarian). The main sources for financing these actions are from the state budget (about 7 billion euro) by the private sector (about 9 billion euro) and internal and external funding programs (about EUR 13 billion). Thus, it is expected that Romania will support the considerable EU funding, another reason for strengthening administrative capacity. Most of the funds to be allocated to environmental protection are dedicated to improving water quality, the most serious environmental problem.

Since the EU during the accession negotiations implementation plans were developed for 12 directives and a regulation in order to substantiate the requested transition

periods, divided into two stages and having the following EC Directives:

- I. Step 1: Directive 94/63/EC on the control of emissions of volatile organic compounds (VOC) emissions resulting from petrol storage and distribution from terminals to service stations, Directive 1999/13/EC on emissions of volatile organic compounds due to the use organic solvents in certain activities and installations, Directive 94/62/EC on packaging and packaging waste as amended by Directive 2004/12/EC, Directive 2000/76/EC on the incineration of waste, Directive 2002/96/EC on waste electrical and electronic Directive 91/676/EEC on the protection of waters against pollution caused by nitrates from agricultural sources, Directive 76/464/EEC and "daughter directives" on pollution caused by certain dangerous substances discharged into the environment of the Community.
  - II. Step 2: Directive 98/83/EC on the quality of water intended for human consumption and Directive 1999/31/EC on waste disposal, Directive 91/271/EEC concerning urban waste water treatment as amended by Directive 98/15/EC, Directive 96/61 / EC concerning integrated pollution prevention and control, Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants, Regulation (EEC) no. 259/93 on the supervision and control of shipments of waste within, from and within the European Community.
- c). Industrial Pollution Control: 8 Total transposed directives, regulations implemented by 20, 13 acts translated (one of the project) and a law transposed and implemented simultaneously;
- d). Waste Management: 16 total and 5 transposed Directive transposed partially implemented by 35 acts (3 of the project), 63 acts translated (3 of the project) and 13 regulations transposed and implemented simultaneously;
- e). Water quality: 21 total and 3 transposed Directive transposed partially implemented by 43 laws, 51 laws translated (including 2 in the project) and two regulations transposed and implemented simultaneously;
- f). Nature protection: 4 Total transposed Directive, implemented by regulations 38 (4 of them in the project), 11 acts and a law transposed and implemented simultaneously;
- g). Hazardous substances: directives transposed six total and three partially implemented through regulations implemented in July, 17 laws translated (one of the project) and two regulations transposed and implemented simultaneously;
- h). Genetically modified organisms: 2 Total transposed Directive, implemented by 17 acts (3 of the project), four acts and a law transposed and implemented simultaneously;
- i). Climate change: 2 full and 2 Directives transposed partially implemented through regulations implemented in July and five acts translated;
- j). Noise: a totally transposed Directive, implemented through four acts and a law implemented.

Currently, the situation of the transposition and implementation of environmental Directives of the European Commission, the fields through national legislation, is as follows:

- a). Horizontal Legislation and regulations: 7 Total transposed Directive, implemented by regulations 14 and 14 transposed;
- b). Air Quality: 9 directives transposed total and four partially implemented by regulations 30, 15 acts translated (one of the project) and 7 regulations transposed and implemented simultaneously;

## RESULTS AND DISCUSSIONS

A prerequisite for fulfilling the commitments undertaken by Romania during the negotiations for accession to the environmental chapter of the European Union is to achieve an innovative economic growth, both regenerative and protective environment and the individual. Among the objectives of Sustainable Development Strategy for the European Union, the following are of particular importance for the future of the national economy and the costs of mitigating

climate change and its adverse effects on society and the environment, a transportation system to meet the needs of economic, social and environmental society, promoting sustainable consumption and production patterns, improving economic management and avoid overexploitation of natural resources, recognizing the value of ecosystem services. Integrating sustainable development objectives in economic activity involves the changing patterns of production and consumption. For the purposes of the above, was introduced in economic theory and the concept of sustainable production and consumption.

To achieve or move towards EU targets Sustainable production and consumption, it is very important for our country to focus on the accountability of business, along with civil society awareness. Romania is still the first steps in this area. Public authorities have a key role in including in economic and social policy strategies and the concept of sustainable production and consumption and to initiate and maintain an ongoing dialogue with civil society and the productive side of service: Business. The price of the suppression products "catabolic" of economic systems is currently charged may be too high, but if it is paid later will be worse for society. Switching between production and consumption "at any price" Sustainable production and consumption, with "prices include" or avoiding "the bill" to other geographical areas or the future will be a process which should start in March directions: State authorities, like the EU, will facilitate access to various tools business to sustainable production and consumption, empowerment through various businesses and even "pressure" from both the authorities and by civil society; awareness of civil society so that consumers seek products and services that have been designed following sustainable production and consumption patterns. A first step was made by adopting the National Strategy for Sustainable Development [2].

As noted, compliance with European standards of environmental protection requires a financial effort on the part of Romania until 2018, about 29 billion euro.

From an economic perspective, these funds will be attracted if viable and effective programs will mean a lot in the future development of our country. In this respect, the Bucharest authorities have initiated several programs and strategies.

So, bring into question - to influence environmental policy argument on the development of national economy - Environment Sector Operational Programme, which represents the programming of Structural and Cohesion Funds and sets strategy for the allocation of European funds to develop the environmental sector in Romania, 2007-2013. It is financed from two funds - European Regional Development Fund and Cohesion Fund - with a value of around 4.5 billion euro, plus national co-financing of around one billion euro.

The overall objective of the Sector Operational Programme Environment to improve the living standards and environmental standards and at the same time, contribute substantially to achieving accession commitments and environmental compliance. To achieve this overall investment will be funded for the following sectors: water / waste water, waste management / rehabilitation of polluted land historic district, nature protection, protection against flooding and coastal erosion; technical assistance. We will try, among which are, to emphasize the influence of the most important sector environmental action on the economic development of Romania.

Investments in the water and wastewater will receive 2.78 billion euro from EU funds (grant) - mostly from EU funds SOP Environment (60%) - and considering the funding of large infrastructure projects that will make an important contribution to compliance with EU environmental standards and will have a considerable impact national development, aiming at both increasing the efficiency of investment costs (through economies of scale) and operating costs of newly established investment objectives. Benefits for the national economy consists in creating jobs, funds from the state budget, quality and reduced costs for consumers, water reclamation, etc..

In the waste management / rehabilitation of historically contaminated land EU will invest 0.93 billion euro (grant), to create integrated management systems at regional level, together with the closure of non-complying. It will finance the collection, sorting, transport, waste treatment and storage combined with measures to reduce the amount of waste. Other investments are earmarked for pilot projects for the rehabilitation of land affected over time by various pollutants that adversely affect the environment and human health. For the development of Romanian industry to optimize the national transport and saving of resources or renewable resources recovery and reuse program has an important role in stimulating the renewal of national self Park (crock Program) [3].

River flood protection facilities benefiting the 270 million EU grant, the intervention areas were selected in accordance with relevant national strategy, and based on risk analysis. So, in addition to avoiding significant damage on the national budget and public assets, investments in this sector and are considering agricultural irrigation and forest vegetation, with beneficial influence on the future development of Romania. Coastal erosion reduction benefits of 329 million euro EU grant for the protection and rehabilitation of the Black Sea, investment contributes to increased public safety and environmental protection, but also the economic value of the littoral, the development of tourism and shipping. Any investment with external financing, especially when some of these funds are grants (grants), entail substantial benefits in the economic development of Romania. We regard in this respect, creating jobs, supplying the state budget with substantial funds from taxation and taxation of various activities related to modernization and completion of the national infrastructure, transport optimization and development of certain branches of the services sector, etc., recovery, reclamation and reuse of material resources, cheap and effective and fair management of natural resources available to our country, with a strengthening and preserving the environment is the foundation for the future of Romanian society.

## CONCLUSIONS

1. The importance now given to environmental policy in the European Union is closely linked to the place of the Member States and Community institutions in joint production and consumption processes. Today in the U.E. environmental policy is no longer carried on the periphery of society, but gradually moved to the centre of the system represented by its production and consumption, and externalities that they create the system in question. It is becoming increasingly obvious that there are massive environmental consequences of what and how to produce, what happens during and after consumption. Currently, the European community is the most developed system of international environmental policy formulation, institutional entity and is the only comprehensive environmental rules mandatory and enforceable.

2. In Romania, the issue is sensitive environment and local pollution problem, caused by heavy industry, transport and agriculture, seems to weigh heavy. Although our country has solved the issue of harmonization of environmental legislation - formal and technical aspects of the acquis communitarian - truly national priorities must be reflected in the design and implementation of this policy, refers not only to meet EU standards in the field.

## REFERENCES

- [1] J. McCormick: Environmental Policy in the European Union, Pulgrave Publishing, Baingstoke, Hampshire, 2001
- [2] National Strategy for Sustainable Development of Romania (NSDS), Government Decision no. 1216/2007, published in Official Gazette no. 737 of 31 October 2007
- [3] Program launched by the Government Emergency Ordinance no. 196/2005 regarding the Environment Fund, as amended and supplemented. For 2010, this action was covered by the Order no. 1683 of 10.12.2009 of the Minister of Environment and Forests for approval of funding of the Program Guide to stimulate national car park renewal in 2010

## CONCEPTS OF SAFETY AND FOOD SECURITY IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

Vergina CHIRIȚESCU<sup>1</sup>, Mihaela KRUZSLICICA<sup>1</sup>, Viorica GAVRILĂ<sup>1</sup>,  
Mariana SANDU<sup>2</sup>, Lavinia Lăcrămioara TĂNASE<sup>3</sup>

<sup>1</sup> Romanian Academy, Institute of Agricultural Economics, 13, Calea 13 Septembrie st., 5<sup>th</sup> district, Bucharest, Postal code 050711, Romania, Tel. / Fax. + 4.021.318.24.11, Mobile: +4.0744.818.086, E-mail: v.chiritescu@yahoo.com; kruzli@yahoo.com; vio.gavrila@yahoo.com

<sup>2</sup> Romanian Academy, Center studies and agro biodiversity "Acad. David Davidescu", 13, Calea 13 Septembrie st., 5<sup>th</sup> district, Bucharest, Postal code 050711, Romania, Tel. / Fax. + 4.021.318.81.06, Mobile: +4.0745.461.412, E-mail: marianasandu56@yahoo.com

<sup>3</sup> Bioterra University, 81, Gârlei st., 1<sup>st</sup> district, Bucharest, Postal code 013724, Romania, Tel. / Fax. + 4.021.490.61.29, E-mail: lavynya\_tanase@yahoo.com

**Corresponding author:** v.chiritescu@yahoo.com

### Abstract

*The paper aims to achieve some clarification on the definition and characterization of the two concepts very present conditions continue the upward evolution of the population Globe. Every day world population grows by about 220,000 people and the world's population each year we add 80 million people. All these people must have access to sufficient food and safe food. In a generic sense, food safety is to ensure that food conditions: do not suffer physical deterioration, physical - chemical, biochemical, microbiological, etc. which affect them harmless; do not contain, as such species beyond the limits permitted by microorganisms legal rules; are not infested with insects and pests; do not become harmful to human body; ensuring the pleasure of food consumption. According to FAO (Food and Agriculture Organization - United Nations Food and Agriculture Organization), food security means "guaranteeing each individual at all times, in any place or time of access to adequate and healthy diet to allow him to have a regime sufficient food for a healthy and active life". Multidimensional nature of food security, just as the fight against poverty, calls a good correlation between the various sectors - agriculture, commerce, infrastructure, health - and the variety of intervention levels - local, national, regional, international.*

**Keywords:** food safety, food security, sustainable development.

### INTRODUCTION

Community legislative framework on food safety and security is common to all Member States, but adapted to national diversity. The EU is making significant efforts that traditional foods are not removed from the market due to safety standards for food and not be discouraged innovation and quality has not suffered. With the accession of new members and their entry into the European single market, transitional measures are sometimes necessary to enable those countries to adapt to high EU standards of food safety. However, even during the transitional period, food not complying with EU standards can not be sold outside those countries.

Every day world population grows by about 220,000 people and the world's population

each year we add 80 million people. All these people must have access to sufficient food and safe food. [BM] The increase comes mainly from underdeveloped countries, which, overall, almost to double its population by 2050 from 0.9 billion today to 1.7 billion. In total, 2050 will be over 9 billion. The question is: will manage the earth to nourish us all with safe and sufficient food? [MB]

On 1. January. 2010, Romania had 21.4 million inhabitants, ranking 7th place in Europe after Germany, France, Britain, Italy, Spain and Poland.

Globally, food security is measured by two basic indicators, namely: wheat production and stocks of wheat. Wheat is the most effective parameter, as it provides half the energy needs of man and it is less perishable fruit and vegetables, can be stored long term.

Wheat production per capita is calculated and shows how much wheat would be a person to consume, and inventories show that production exceeds consumption, or vice versa.

## RESULTS AND DISCUSSIONS

While the Common Agricultural Policy (CAP) has achieved great success with the objective of ensuring food security of the European Union gradually since the 80s, the EU had to contend with almost permanent surpluses in most agricultural commodities, of which some have been exported (with subsidies), while others had to be stored or disposed of within the EU.

These measures have meant large budget expenditures, have distorted some world markets, have not always served the best interests of farmers and became unpopular in the eyes of consumers and taxpayers. At the same time society has become increasingly concerned about the sustainability of agriculture in the context of environmental protection.

**Agriculture and markets of agricultural products and foodstuffs**, were often regulated in time, interventions that have subject a result of agricultural policy objectives, most often aimed at ensuring food safety and security of people and adapt to the demands of food products manifested in the growing demand in domestic and foreign markets. The importance attached to agriculture and food sectors stems from the fact that they constitute support consumption and a large part of growth, the large proportion who most often hold food goods in total transactions between countries and also from that agriculture and food industry are connected horizontally and vertically with all other branches of the economy, placing organic national economic environment, regional, international and global.

**Agricultural policies** whose overall objectives were originally referred to food security through domestic production, and subsequently, with CAP reform, aimed at increasing the quality of these targets its products and their competitiveness in the

domestic market and external environment, interests consumers, sustainable agricultural development, have constituted the Community policy priority. In addition to social issues aimed at protecting consumers, ensuring food safety and security, etc., the importance of agriculture in European Union countries and the resulting economic issues. Thus, the EU, in 2004, agriculture occupies in achieving GDP share from 0.5% in Luxembourg and 6.1% in Greece and Lithuania, while food, beverages and cigarettes from 0.9% in Luxembourg and 4.0% in Lithuania. These contributions are small though, are not negligible considering the value of GDP for EU-27 countries.

**EU food safety policy** takes into account the whole chain of food for consumption by animals or humans. It provides extensive regulations and stresses the responsibility of manufacturers and suppliers regarding their participation in providing quality food supply. EU regulations are among the strictest in the world. To make it more transparent and scientific regulation of food, there was a revision of the EU food safety since the late 1990s. In 1997 it established a new scientific advisory system for the EU. Eight scientific committees were created, along with a Scientific Committee headquarters.

**European Food Safety Authority (EFSA)** was established in 2002. EFSA is an independent organization that works closely with various scientific agencies and institutions in EU member countries, providing independent scientific advice on all matters directly or indirectly impact on food safety. It covers all stages of production and supply of food, from production to supply food to consumers. EFSA also made, risk assessments in the food chain and scientific assessment on any matter that has a direct or indirect impact on food supply safety, including good health and treatment of animal and plant health.

Throughout the food chain there is a risk that food is contaminated with chemicals or microorganisms. In general, food security is threatened by factors that fall into two categories, namely:

- *Biological contamination* - bacteria, fungi, viruses or parasites, in this type of contamination, food shows in most cases easily identifiable signs;

- *Chemical contamination* - from the environment with chemicals, veterinary drug residues, heavy metals or other residues in food reaching unintentionally or accidentally, during the processes involved in agriculture or animal husbandry and poultry, food processing, transport or their packaging.

With the entry into the European Union and align to European norms in force, the number one priority for any organization in the agro-food chain is to ensure that safety was not compromised its products in the food chain, and this can be achieved by implementing and certification of a **Food Safety Management System**. Each organization must demonstrate the ability to control food safety hazards on, in order to provide safe end products that meet food safety requirements agreed upon by consumers and industry regulators.

Increasingly pronounced trend of the market specializing in the food industry to maintain a tighter control all manufacturers, in order to offer consumers high quality products, but also safe microbiologically and bacteriological, led to the birth of a system called **HACCP (Hazard Analysis Critical Control Point)**. HACCP is a system of internationally recognized food safety, based on a systematic analysis and preventive production process, which shows that food safety risks are identified, assessed and controlled. HACCP involves risk identification, control and monitoring of critical points where the process could be compromised food quality. The HACCP system must apply to the entire production chain: from the growth of plants and animals to the finished product purchased by the consumer.

**Rules on food safety** concerns:

-nutritional qualities of food - are given the chemical components, biochemical, plastics and energy to satisfy physiological requirements through food consumption, nutrition, the human body; sanitary and wholesomeness of food qualities - which are toxic or content of pathogenic

microorganisms, which, through consumption, do not affect consumer health;

-organoleptic qualities of foods - which are all characteristics of food and consumer touch can be perceived: form, color, appearance, smell, taste and consistency;

-the use of food qualities - referring to satisfy consumer requirements for food use in the processes of feeding - nutrition.

Release for public consumption, storage, transport or processing of food products which do not meet the requirements of the above rules entail material, disciplinary, or criminal, as determined by law.

Economic performance of a production or service of food are mostly related to the quality of her work. In recent years, increased worldwide customer requirements in terms of quality. This trend was accompanied by an understanding of increasingly emphasized the fact that continuous quality improvement of products and services is required to achieve and maintain economic, performance (efficiency).

Food safety rules and measures apply to all stages of production, processing, distribution and marketing of food and feed, except primary production for private use or domestic preparation, handling or storage of food for domestic consumption. *The risk in the context of food security* is the probability of adverse health effect and the severity of this effect, following exposure to a hazard. Risk analysis involves a process comprising three interrelated components, namely:

- *food safety risk assessment* - the scientific process is composed of four stages, namely: hazard identification (hazard), hazard characterization, exposure assessment and risk characterization;

- *risk management* - the process, distinct from risk assessment, consisting of assessment of various possible policies, in consultation with stakeholders, taking into account risk assessment and possibly on other factors and, if necessary, selecting appropriate prevention and control measures;

- *risk communication* - the interactive exchange of information and opinions during the course of risk analysis of hazards and risks, correlated risk factors and risk



perceptions, among risk assessors, risk managers, consumers, food business operators and the food animal, academia and other stakeholders, including risk assessment results and explain the basis of risk management decisions.

When it comes to food safety hazard in the context we must refer to a biological agent, chemical or physical, or a state thereof, present in food or feed, with the potential to cause adverse health effects.

**Food law** pursues one or more general objectives of protecting human life and health, consumer interests, the use of fair practices in food trade, taking into account where appropriate, health and welfare, plant health and the environment. Also, food law aims to achieve free movement of food and feed produced and marketed in accordance with general principles and requirements of food safety. The development or adaptation of food law are taken into account existing international standards or state of being adopted, unless such standards or items covered by these standards is not an effective or appropriate for the objectives of this legislation, or if there is scientific justification or if they can determine a level of protection different from that established at Community level as appropriate.

In order to achieve the overall objective, which aims to ensure a high level of protection of human health and life, food law is based on risk analysis except where this approach is not appropriate to the circumstances or nature of the measure. Risk assessment is based on the available scientific evidence and undertaken in an independent, objective and transparent.

Risk management takes into account risk assessment results and opinions of **the National Sanitary - Veterinary and Food Safety (ANSVA)** other factors relevant to risk management and the precautionary principle. In specific cases where, following assessment of existing information can be found harmful health effects, but remain a scientific uncertainty can be taken provisional risk management measures necessary to ensure a high level of health protection, to collect other

scientific information for a more comprehensive risk assessment.

According to FAO (Food and Agriculture Organization - United Nations Food and Agriculture Organization), **food security** means "guaranteeing each individual at all times, in any place or time of access to adequate and healthy diet to allow him to have a regime sufficient food for a healthy and active life."

Food security is influenced by four groups of factors:

- the social - economic and political;
- agri-food sector performance;
- social protection;
- health and hygiene.

The main bodies involved in monitoring global food security are:

- FAO - Food and Agriculture Organization (United Nations Food and Agriculture);
- EC - European Commission (EC - European Commission);
- USDA - United States Department of Agriculture (Department of Agriculture United Nations).

In recent years indicate that there are problems of food insecurity in 86 countries, 43 African, 24 Asian, 9 in Latin America and the Caribbean, 7 in Oceania and Europe 3. In 2004, 35 countries have received emergency aid because of the food crisis. The main causes were: military and civil conflicts, post-conflict situations, refugees, economic disadvantaged areas and climate issues. In 2001, German Chancellor *Gerhard Schröder*, said: "Extreme poverty, growing inequality between countries and within countries, are major problems of contemporary, because they are due to instability and conflict. Reducing world poverty is thus a prerequisite for safeguarding peace and security."

Human rights are universal, interdependent and indivisible. The right to be free from hunger and discrimination is a fundamental right to life and personal safety. While violent conflicts surely result from a combination of several factors, poverty creates conditions for the occurrence or continuation of a conflict. Investing in development is of particular importance in the reduced likelihood of war,

and development strategies should take into account possible effects on reducing the risk of conflict (or its extension accidental). When a country's capital stock (including its physical capital, natural and human) is reliable, the economy remains unproductive households are poor and the environment is degraded. This leads to many problems, such as:

- *Rate of small economies.* Members use their entire income for poor families to survive and may therefore not save for the future. Those savings can be made - few, however - often lack access to modern banking.

- *Perceptions of limited tax.* Governments do not have sufficient budgetary resources to facilitate investment and improve public administration, using modern information and means of qualified managers.

- *Restricted foreign investment.* Foreign investors prefer to avoid countries that lack basic infrastructure, countries where road networks, ports, communication systems and electrical networks operate poorly and are unreliable.

- *Violent conflicts.* Scarcity of resources can increase the latent tensions between rival groups.

- *Exodus of skills.* Skilled workers leave the country, because salaries are too small and too poor future prospects.

- *Unforeseen or unplanned births and rapid population growth.* Residents of rural poor have the highest fertility rates and the most numerous families. Rapid population growth and gradual reduction of agricultural use aggravates poverty rates in rural areas. The poor villagers receive very limited access to information and services that enable them to spacing births and limiting the tasks according to their preferences.

- *Environmental degradation.* Groups living in poverty lack the means to invest in environmental protection and have no political power necessary to limit the damage caused to local resources, which result in soil degradation, deforestation, overexploitation of fisheries and other damage environment. These degrading conditions undermine training in rural incomes and contribute to worsening health conditions, determine

migration areas - urban and suburban areas and installation of new entrants in the already fragile environment.

The number of food emergencies has increased in the last two decades from an average of 15% per year in 1980, more than 30% per year after 2001. Most of these increases took place in Africa where the average annual food crisis has almost tripled.

Balance causes of food crises has shifted over time. Since 1992, the proportion of crises that were primarily attributable to human causes such as conflict or economic crises, has doubled rising from 15% to less than 35%. More than 45 million people were affected by the 21 humanitarian crises in 2003. Most of these crises have persisted over time, often being triggered by military conflict and drought, floods and the effects of AIDS.

Reported seizures disrupt food production and food security undermines banishing people from their homes, kicking at eroding the foundation of everyday life and social status of families, communities and countries. However, frequently, farmers and communities to disasters shows remarkable resignation.

## CONCLUSIONS

1. In a generic sense food safety is to ensure that food conditions: not suffer physical deterioration, physical - chemical, biochemical, microbiological, etc., affecting their harmlessness; may not contain, as such, species of microorganisms beyond the limits permitted by legal regulations; not infested with insects and parasites; does not become harmful to human body; ensuring the pleasure of food consumption.

2. The system called HACCP (Hazard Analysis Critical Control Point) is based on the Food Code (Codex Alimentarius) developed by the UN Food and Agriculture Organization and World Health Organization. It is recommended that HACCP be used in conjunction with good hygiene practices and production, along with forming the necessary elements of food security. It is also recommended to be implemented with a Quality Management System.

3. In Romania, organizations can certify HACCP Management System according to the following three benchmarks: Codex Alimentarius - general and specific rules on good hygiene practices - GHP - and production - GMP - for organizations that process, transport, store or sell food; DS 3027E: 2002 - a document which introduces all the rules of the Codex Alimentarius in a system that can be documented and whose achievements can be measured; ISO 22000: 2005 - the first international standard HACCP certification.

4. Currently, CAP objectives include helping agriculture to achieve its multifunctional role in society: producing safe and healthy food, contribute to rural development and protecting and enhancing environmental status of its biodiversity cultivated. Also, it was important for the EU to establish common rules for approving genetically modified organisms (GMOs) in agriculture.

5. EU tries to help the environment by:

-providing financial assistance to encourage change, for example, reducing the number of animals per hectare of land, leaving uncultivated field borders, creating ponds or planting hedges and so going over the traditional methods of agriculture; support for the depreciation costs of preservation of nature;

-necessarily insisting that farmers comply with laws relating to environment (and those relating to consumer health, animal and plant) and vigil on the correct operation of the land if they wish to qualify for direct subsidies.

6. Responsibility for food and feed safety lies primarily with agents and operators in food and feed industry. In Romania, National Sanitary - Veterinary and Food Safety (ANSVA) develop regulations regarding the rapid alert system, crisis management and emergency situations.

7. Regulation no. 1292-1296 adopted by the European Union 27. June. 1996 food aid program defines food security and the European Commission. It resulted from a policy reform progress of food aid established since 1994 to make an integrated food aid effectively as possible in policy development and food security strategy of the countries

concerned by this problem. Nature of food aid (referring to the stocks of agricultural products) is made under Article 11 of the said Regulation. Reducing the vulnerability of the most helpless populations, food aid system results in better identifying their needs for a better understanding of the strategy they implement in the face of nutrition risk factors.

8. Multidimensional nature of food security, just as the fight against poverty, calls a good correlation between the various sectors - agriculture, commerce, infrastructure, health - and the variety of intervention levels - local, national, regional, international. Representation of Regulation 1992/96 is also found in the International Food Aid Convention, negotiated in 1999. The Convention sets minimum annual food aid understanding about (Argentina, Australia, Canada, the European Commission and members states, Japan, Norway, Switzerland, U.S.A.). Actions and objectives are applicable to food security in the "Millennium Development Goals" (MDGs), which is the main component of the Millennium Declaration, adopted in September. 2000 Millennium Summit, 191 countries, including Romania. Millennium Declaration is the only comprehensive development agenda on which there is agreement at the highest level between most countries.

9. Globalization of the food chain causes constant new challenges and risks to health and interests of European consumers. The main objective of EU food safety policy is to achieve the highest possible degree of protection of human health and consumer interests in relation to food. In this regard, the EU strives to ensure food safety and proper labeling, given the diversity of products, including traditional and at the same time ensuring the proper functioning of the internal market. Thus, the EU has developed a comprehensive body of legislation on food safety, which is continually monitored and adapted as new developments. This legislative body is based on risk analysis. Creating the European Food Safety Authority (EFSA) was an important step and supporting the efforts of European institutions to protect European consumers in this area.

10. The basic principle of EU food safety policy is to apply an integrated approach, such as "farm to fork", covering all sectors of the food chain - including feed production, animal and plant health, animal welfare, primary production, processing food, storage, transportation, retail and import and export. This comprehensive and integrated approach, in which the responsibilities of food business operators and feed, and the competent authorities are clearly defined, represents a food policy more coherent, efficient and dynamic.

- [www.insse.ro](http://www.insse.ro)  
- [www.wall-street.ro](http://www.wall-street.ro)  
- [www.manager.ro](http://www.manager.ro)  
- [www.fao.org](http://www.fao.org)  
- [www.onuinfo.ro](http://www.onuinfo.ro)  
- [www.ansva.ro](http://www.ansva.ro)

11. According to the European Union and World Health Organization (WHO) - Food safety is everyone's responsibility, from their origin until they reach the table. To maintain quality and food safety along the food chain, so procedures need to ensure that food is integrated and monitoring procedures to ensure the execution of the operations end in good condition. Food safety can not become a reality only if it is the responsibility of all those involved in food, from professionals to consumers.

## REFERENCES

- [1] Balescu M., 2011, Analizele Manager.ro, Ne amenință o criză a suprapopulării planetei? (A crisis of overpopulation threatens our planet?), articol apărut pe [www.manager.ro](http://www.manager.ro), 31. ianuarie. 2011
- [2] Bidileanu V., 1996, Ce știm despre agricultura Uniunii Europene?, Tribuna Economică, Nr. 15 - 22, București.
- [3] Giurcă Daniela, 2007, O nouă schimbare a Politicii Agricole Comune – oportunitate sau constrângere pentru România?, Proiectul MAKIS al Băncii Mondiale implementat de MAPDR.
- [4] Oțiman P. I., 2006, Dezvoltarea rurală durabilă în România, Editura Academiei Române, București.
- [5] Schneckner N., 1995, Agricultura - problemă mondială, Revista Capital, Nr. 34 / 31. august. 1995;
- [6] Tracy M., 1997, Produsele agroalimentare și agricultura în economia de piață, Editura Impex S.R.L., București.
- [7] Documentul Comisiei Europene - Agenda 2000.
- [8] x x x – Institutul Național de Statistică, Anuarul statistic al României, 1990 - 2008.
- [9] Web sites:
- [www.oecd.org](http://www.oecd.org);
  - [www.ecomagazin.ro](http://www.ecomagazin.ro);
  - [www.realitatea.net](http://www.realitatea.net);
  - [www.siteresources.worldbank.org](http://www.siteresources.worldbank.org);
  - [www.ec.europa.eu/eurostat](http://www.ec.europa.eu/eurostat)

## ASPECTS OF TRANSFORMATION OF SEMI-SUBSISTENCE AGRICULTURAL HOLDINGS IN EFFECTIVE AGRO-TOURISTIC FARMS

Vergina CHIRIȚESCU<sup>1</sup>, Monica TUDOR<sup>1</sup>, Gheorghe SĂVOIU<sup>2</sup>, Sia SĂRARU<sup>3</sup>,  
Liana Angela NECULAIE<sup>3</sup>

<sup>1</sup> Romanian Academy, Institute of Agricultural Economics, 13, Calea 13 Septembrie st., 5<sup>th</sup> district, Bucharest, Postal code 050711, Romania, Tel. / Fax. + 4.021.318.24.11, Mobile: + 4.0744.818.086, E-mail: v.chiritescu@yahoo.com and monik\_sena@yahoo.com

<sup>2</sup> University of Pitesti, 1, Targul din Vale st., Arges county, Romania, Postal code 110040, Tel. + 40 348.453.100, Mobile: + 4.0745.047.085, E-mail: gsavoiu@yahoo.com

<sup>3</sup> Bioterra University, 81, Gârlei st., 1<sup>st</sup> district, Bucharest, Postal code 013724, Romania, Tel. / Fax. + 4.021.490.61.29, E-mail: sia\_ion@yahoo.com and liana\_niculaie@yahoo.com

**Corresponding author** : v.chiritescu@yahoo.com

### Abstract

*Develop and support such fears is aimed at resuming multifunctional farm idea and identifying the means by which many semi-subsistence agricultural holdings in Romania can be converted into effective farms, through the provision of agro-farm services. Given that we accept the idea that sustainable rural development can not be based only on agriculture, agro-tourism may be the main non-agricultural activities, agricultural activities in family farms complementary, being primarily a source of additional income for them. The European Union encourages, supports and finances the development of tourism and agro-tourism and additional activities related to agricultural holdings, especially those of subsistence, semi-subsistence and family. The conditions necessary for rural tourism activities undertaken to achieve the desired goal are: the conservation of local resources (natural, historical, cultural, ethnographic, folklore, etc.), environmental protection, improving the quality of life and welfare of residents rural, etc. Minimum criteria for the classification of households in rural tourist circuit covers: access to sleeping rooms and toilets, which must be direct without going through other rooms; mandatory connection to the public sewerage and running water there is domestic; connection compulsory public electricity network. In general, establish an agro-touristic farm or a rural locations requires a relatively small start-up capital, given that recovery starts on the premise of the peasant farm surplus accommodation, of those "guest rooms". This capital and depend upon the material available to the household, the state property that is intended to be transformed in rural locations, existing infrastructure in the area, etc.*

**Keywords** : agricultural holdings, agro-touristic farms, sustainable rural development.

### INTRODUCTION

Significant rural dimension of the national economy is an economic reality and social consequences in time to mark the actual integration into the European Union. Arguments are multiple demographic, economic and political. With an aging population's growing weight synthesized in about 10% higher in the group aged 65 years and older with a practical lower life expectancy by nearly two years, with an overall mortality rate and higher infant almost 50%, with an illiterate population 3.3 times larger than the urban category has a weight of about 4.5% of the total population aged over

10 years, mostly rural population is still defined by traditional household Romanian peasant, and to a lesser extent modern agricultural farm. Rural Housing is typically specific single placed in a mostly residential buildings built between 1945 - 1970 and equipped with water and sewer at a rate less than 15%, gas supply under 10%, heating central 2%. The general budget of rural household income captures the dominant share in nature and agriculture, but also high amount of self-consumption, yet located one third of the costs, as well as by the low percentage of spending money, taxes and fees. Approached typical, rural household cash income level reflects a net salary of only

72.4% of the national media on 1 July 2007 (RON 753 respectively in 1040) and a pension level of 38.4% of the average pension insurance State to end the first semester of that year (in 140 of 365 RON). Rural Society and the Romanian rural economy might remain only under the traditional type of resizing, fitness for a modern type of organic farming and, ultimately, profitable.

## MATERIAL AND METHODS

The material presented was developed mainly based on the study of many Romanian and international specialty papers (see references at the end of the work), the observation of actual situations on the ground, the documentary visits - information made at national level as well and in consultation with numerous articles and studies published on the Internet. The databases used were those provided by official national and European institutions in the field, such as the National Statistics Institute (INS) of Romania, European Union institutions, the World Bank and others. Econometric modeling becomes almost impossible when the rural economic structure as seen rapid changes, which obviously happens in the countries in transition. The current state of agriculture is due to numerous changes in agricultural policies. Policymakers still act with major negative influence on Romanian agriculture still generating an under-utilization of existing production factors and weak complementarity.

## RESULTS AND DISCUSSIONS

The starting point of our scientific approach to it had the distribution of agricultural holdings in Romania are based on land owned by them. As can be seen from the table below, the situation is detrimental to a competitive agriculture. In these conditions, the changes in Romanian agricultural holdings may not correlate with standard U.S. farm typology, is, unfortunately, a practical impossibility even to achieve a rate comparable with the average EU-27.

Table 1. Number of farms by class European size (ESU)

	Total	0 - 5 ha	5 - 20 ha	20 - 50 ha	50 - 100 ha	≥ 100 ha
EU - 27	7816	3921	2 406	809	393	288
%	100	50,2	30,8	10,3	5,0	3,7
Romania	1236	918,2	289,6	14,9	4,6	8,6
%	100	74,3	23,4	1,2	0,4	0,7

Source: The FSS for 2005 Report, EUROSTAT, 2006

Two of the three properties are in category 1 to 8 ESU, while only 4% were above 100 ESU. European Union agriculture is dominated by less specialized farms in the new Member States (especially in Romania and Lithuania). Most of the small farm holding and the proportion of all farms are all new Member States (90%) mainly in Romania, Lithuania, Latvia and Bulgaria.

First of all, the rural economy is not a specific business, a business that combines inputs purchased on the market to make a profit by selling low in the market. However, the Romanian peasant, although at present does not operate an enterprise in the economic sense, he runs a household, which could turn into business only if the business would become a major ecological and organic agricultural or would carry out such non-agricultural activities as agro-tourism, the crafts, traditional recipes for processing agricultural products, etc. Type of organic agriculture or organic farming in the EU has about 4% with a slight trend of growth. Ecological type or size of this organic farm is on average higher than normal. Some countries however have a high potential to provide an organic agriculture and ecological type, somewhere between 70 - 100%, especially Romania, Bulgaria, Cyprus, Latvia, Lithuania, Malta and Slovakia.

**Romanian agriculture** is defined by some European experts as being performed by an aging population than with secondary education through subsistence farming with no future, no markets, low income. Social and economic architecture of Europe offers its European funds programs that would be saved by the cultural model of rural Romanian village, returning him to a European heritage of the old rural community has virtually disappeared permanently, thereby exploiting

the environment and biological diversity existential areas (after 1 January 2007 Romania became the only EU country holding bio-regions five of the 11 existing geographical contours of her community type).

In traditional rural Romanian communities can drill some *distinctive elements*, such as:

A. the economic nature of occupations - from pastoral villages to farm villages and mixed villages;

B. forms of social organization - from the village a group of free peasants in the village a group of peasants in the community allowed foreigners to pay tithe, the village where the ancient noble villagers congregation was in the hands of a ruler, the village recently established colony, the village with double joint property, a boyar and a peasant from the village where the group merged with the congregation boyar peasant village and even late feudal type.

Romanian village peasants remained rural cultivators whose surpluses have been transferred to a group of elders, the descendants of the originators or the settlement or village hearth, a group that used the surplus and redistribute it to those who did not produce, but had to feed, in exchange for services. The group has generated funds for traditions (ceremonies suite), who stressed economic solidarity, religious and cultural Romanian rural community. Type in the rural economy had become so in the first decade of the twentieth century, the 1hectar of crops and 10 hectoliters per capita grain, holding the record in Europe Romanian village of corn, wheat and barley, and its exports exceeding 80 million tons of cereals, between 1880 and 1914 [1].

Romanian peasant was and remained a grower and a producer was in long-term relationship with the city. There was urban, not rural areas or in the future there will be, whether urban areas will not be able to take office by the grower and breeder through modern agricultural farm, based on income or subsidized insurance, where state intervention requires. Romanian rural economy was always focused on family, kinship, her whole being determined by the size organization and

coordination of consumer applications and the number of labor.

**Village** as a system include farms, differentiated in relation to access and / or their orientation towards the market. Searching for solutions for accessing European funds is constantly hitting the severe standards of the European agricultural model, vastly different lifestyle of the Romanian village community. Romanian agricultural rural survival, the peasantry, not only involves a relationship between peasants and non-farmers, but also a type of adaptation, a combination of attitudes and activities to support it in its existential effort in the political system, economic and social, cultural model assimilating it now apparently disappeared in Europe, undermining its existence. The solution to modernize agriculture and rural areas will be expanded inexorably over all economic and social structures. In such a process already evident, the emphasis is on *following directions*:

- a) increase agricultural productivity;
- b) economic organization operating structures in agriculture;
- c) sustainable development of rural infrastructure;
- d) improving the structure of production;
- e) organizing the smuggling foodstuffs;
- f) conservation of natural and land against degradation;
- g) crop diversification to ensure economic stability and ecological
- h) establishing programs for young people in rural areas;
- i) pro-family rural agricultural policies and providing alternative sources of income;
- j) revitalization of village culture through a new rural model of a new type of rural community, closer to urban areas, but also preserves the authentic traditions.

Unfortunately, being exposed to increased cyclicity, farming as a contribution to GDP fell from 6.6% in 2007 and in 2009 to just 5.8% in 2009, amid a trend of services. Peasant economic behavior has evolved from an involuntary inactivity imposed by the limited land resources and equipment (Nicholas Georgescu - Roegen, 1976) adopted a strategy focusing on just enough work to

remain poor in order to avoid the excesses of urban tax, socialist policies of agrarian proletarianization and random distribution of absentee property type cooperatives forced in recent years incorporating the transition from agrarian communism with its forms of collective ownership and community imposed on private ownership of land.

Today **tourism in rural areas** is increasingly valued and sought by people who live and work in more stressful conditions inherent in modern civilization. Being declared as a product who eradicate stress, rural tourism and agro-tourism is still a possibility of returning to nature, to whatever is pure, genuine, unadulterated and pure.

Practitioners of this type of tourism can be found in the most diverse areas of the globe: in almost all Europe (the European Community with particular attention to projects and programs for tourism in rural areas), North America, Australia and even Africa. The European Union encourages, supports and finances the development of tourism and agro-tourism and additional activities related to agricultural holdings, especially those of subsistence and family.

The conditions necessary for rural tourism activities undertaken to achieve the desired goal are:

- local resources conservation (natural, historical, cultural and ethnographic resources, folklore, etc.);
- environmental protection;
- improving the quality of life and well being of rural residents.

**The advantages of rural tourism / agro-tourism**, compared with traditional tourism (mass), are:

- offers very diverse, original and unique;
- natural resource wealth, yet the unspoiled countryside;
- the immense cultural heritage, historical and spiritual legacy of the Romanian people;
- ethnographic resources, folklore and gastronomy exception of the Romanians;
- Romanian peasant hospitality and its traditional crafts (handicrafts, sculpture, food processing, etc.).
- picturesque Romanian village, whether hill, mountain or plain;

-State support for Romanian and European Union initiatives to promote rural development especially for tourism and agro-tourism.

For a peasant can become a rural locations are required minimum number of conditions relating to:

*a. The location of the household* - in a picturesque setting in an easily accessible area, in places far from pollution, etc.

*b. Architecture building* - comply with the local in terms of structural characteristics (shapes, sizes, colors, etc..) and construction materials (traditional houses of stone, wood, etc.).

*c. Parks and facilities of the farm yard* - gardens, parks, playgrounds for children, turrets, etc.

*d. Household facilities* - to meet the local (traditional items, handmade crafts, etc.).

*e. Services provided* - to be quality, provided by qualified personnel and in the spirit of traditional hospitality.

**Minimum criteria for the classification of households** in rural tourist circuit covers:

-access to sleeping rooms and toilets, which must be direct without going through other rooms;

-mandatory connection to public sewer network and the availability of running water waste;

-mandatory connection to public electricity network.

The main characteristics that must be followed in the assessment and classification of accommodation and agro-tourism in rural areas are:

a.the outside position, the receiving unit, accessibility (means of transport or private access roads), the overall condition of buildings, how buildings fit into the landscape and regional outdoor facilities (parks, gardens, parking spaces, rest and relaxation, etc.);

b.from the inside: how the arrangement and decoration of the rooms, the general impression of living space, eating area (dining room, kitchen, etc..) leisure spaces, guest rooms and bathrooms.

From the legal point of view, Romania, tourism and agro can be deployed as:



c.PFA sites (freelancers), established under Law no. 300 / 2004;

d.AF's (family associations), established under Law no. 300 / 2004 and / or Law 322 / 2009;

e.SC (company), established under Law no. 31/1991.

In general, the establishment of rural locations requires a relatively small start-up capital, given that recovery starts on the premise of the peasant farm surplus accommodation, of those rooms. This capital and depend upon the material available to the household, the state property that is intended to be transformed in rural locations, existing infrastructure in the area, etc.

If the household (guesthouses) is established in a building independent, separate from the house of the householder, the investment required is higher and it may come from funds: own sources, grants from the state budget, EU funds (non-reimbursable), bank loans, joint ventures with certain investors, etc.

**The main advantages of setting up an agro-tourist boarding houses** (guesthouses) are:

➤ target market segment, which is constantly expanding, the number of Romanian and foreign tourists who prefer quiet and rustic atmosphere of excitement and atmosphere costly rural locations of hotels is growing exponentially;

➤ the tourism and agro-tourism activities undertaken in rural areas enjoy a real financial support through the National Rural Development Programme (NRDP), which provides non-reimbursable European funds for entrepreneurs;

➤ business conducted within the tourism industry and agro-tourism, the hospitality industry that can become very profitable in the short term, if recovered from the very beginning all the resources available to peasant households, namely: adequate housing (or can be improved with efforts reduced financial), agricultural products and foodstuffs in the household, labor resources of family, etc.

**Specific risks or disadvantages** of establishing an agro-tourist boarding houses or are [4]:

1. The seasonality of tourism, which could be inconvenient in some respects, such as:

- the infrastructure of a city during peak season may not meet the needs of tourists;
- prices may be too high tourist season;
- tourists can be bothered, in peak season, from congestion;
- intensity of exploitation of tourism opportunities is relatively low;
- in winter, tourist services may be limited to weekends or during the winter holidays (Christmas, New Year);

2. Activity in tourism and tourism requires a greater effort on the part of providers, special attention to the accommodation and food preparation;

3. The biggest problems (risks) that can be faced and agro-tourism service providers in the Romanian rural environment are:

- lack of infrastructure (particularly access roads) to facilitate access to those places for tourists who want to enjoy the offer of a pension;
- possible overstatement of earnings (after the pension system began to function normally);
- direct competitors and especially the underestimation of the indirect, direct competitors can be relatively easily assessed by observing them carefully, the problem occurs, particularly in terms of indirect competitors (specific restaurants, motels or hotels) because it is more difficult to calculate how many customers might draw;
- start work in a poor area attractions that can not rise to the expectations of customers, in this case, service providers must be very creative to persuade tourists to visit the guesthouse, for example, can organize sports tournaments, competitions and other races, traditional fairs, evenings or other events which are to be advertised;
- neglect guests - is not sufficient to provide hospitality and good food, tourists should be given other reasons for concern, opportunities for fun and relaxation, nature tourism programs, etc.

- taking into account the exaggerated, the possibilities of building upon the financial incentives and access to sources of funding, how to obtain these financial incentives is not simple, in most cases, to make a request so it

is necessary to start work or at least demonstrate serious intention to proceed, to obtain funds necessary to prepare appropriate documentation, represented usually by: business plan, feasibility study, technical documentation, specification and economic estimates, program activities, etc.

- lack of promotion, both inside and outside the country, tourist destinations in Romania, for instance, a landlord in a remote mountain area, however wonderful it may be, will be difficult to access on their own a specialized market in Europe or anywhere else in the world;

- lack of know-how, namely the art of knowing how to give a visitor an experience that should mean more than just good accommodation and a gourmet meal.

## CONCLUSIONS

1. Romanian rural economy was always focused on family, kinship, her whole being determined by the size organization and coordination of consumer applications and the number of labor. This explains the importance of the connection problem of rural overpopulation population density agricultural area of the village during the interwar and postwar. The hallmark of overpopulated agrarian territories were "crumbling earth, sale or rental prices of land increased, migration, spread of agricultural occupations, low wages, low farm income ratios, the regression of green land area, pasture and croplands, reducing the stock of cattle and lower income gross (Madgearu Virgil). After more than half a century, the current Romanian village is underpopulated, in a paradoxically mode. With an aging population's growing weight synthesized in about 10% higher in the group aged 65 years and older with a practical lower life expectancy by nearly two years with an overall mortality rate and higher infant almost 50%, with an illiterate population 3.3 times larger than in the urban category has a weight of about 4.5% of the total population aged over 10 years, mostly rural population is still defined by traditional household Romanian peasant and to a lesser extent by modern

agricultural farm. After 1990, while carrying five election cycles, the national economy has worsened the divide into two distinct parts, as defined by the criterion of residential, an urban novel, growing with a strong libertarian component, which looks at opportunities rather than state support and a conservative rural Romania, the place most people in the age group 65 years and over, and most of them are below the poverty line who need help, not only for the development of households, but selected for survival. Contrast, polarization, gaps, opposing developments, all in one place means a paradoxical relationship between urban and rural areas in contemporary Romania.

2. Let us not rush to write the epitaph of Romanian rurality, because the spirit of Romanian peasant is born and reborn again, even under the burden of these hard times! Going down the street can see that city dwellers are increasingly sad, ringed and brought back. Romanian peasants are still brown face, still laughing and playing on all occasions with all my heart, convinced that the earth and God will not betray ever. The process of transforming the over 3 million subsistence farms and semi-subsistence farms multifunctional, such as commercial farms, agro farms and farms with craft activities, etc., will be long and difficult, but possible. The main problems facing the current holdings in Romania are: lack of funds, poor infrastructure, inconsistency in the legal framework, bureaucracy, local government disinterest, etc. We hope the return home of young people in rural areas and creating real conditions for sustainable rural development in Romania.

3. Another approach to this problem would be to recognize that farmers are part of a larger and more complex society from a rural economy and supported by an integrated urban economy benefits from the products obtained here. Growers could remain rural peasants whose surpluses are transferred to a group of leaders able to remunerate traditional rural community, a group that uses the surpluses only to redistribute them to those who do not produce, but must be fed in exchange for services characteristic (thus

maintaining the rural Romanian traditions and culture). And that the conditions under which the Romanian peasant, its minimum heat exchange as the fund would remain of utmost importance, as specific ceremonial expenses (traditions, cultural events, etc.), which will maintain, even for purposes interest and economic survival, social order has collapsed in a peasant world in which peasant Europe is in a certain extinction. Traditional rural economy not only feeds his family, but also provide various services. In such a rural economic organization, the children are grown and tailored to the adult world and all the elders were also cares until you die, then are paid funeral funds and with the active involvement of traditional rural community. Since the main objective of the rural economy is to meet the annual consumption of the family budget, the most important fact is not compensation unit of work (ie day jobs), but pay the entire year of work.

4. General advantages obtained through the establishment a tourism or agro hostels are:

- strengthening of family business;
- highlighting the wealth of the village and area and popularize those areas;
- new jobs for the villagers;
- upgrading local infrastructure
- local economic development activities;
- processing of raw materials from own production: meat, milk, fish, specific area, berries, mushrooms, honey, wool, wood;
- the improvement of culture, education and civilization of the inhabitants of rural villages and default;
- involvement of the younger generation and keeping it in rural areas;
- conservation and environmental protection areas;
- raising the living standards of villagers.

## REFERENCES

- [1] Axenciuc V., 1996, *Evoluția economică a României. Cercetări statistico-istorice, 1859 - 1974*, Vol. II, Agricultura, București.
- [2] Buianu (Chirișescu) Vergina, 2006, *Economia agroturismului*, Editura Terra Nostra, Iași.
- [3] Săvoiu G., Stanciu Mirela, Vlad I., 2010, *Modelul cultural contemporan al satului tradițional reflectat în*

teoriile sociologice și statistico - economice rurale românești, *Studii și cercetări de economie rurală*, Tom IX - Paradigmele dezvoltării rurale, Editura Terra Nostra, Iași.

[4] x x x - Grupul de Editură și Consultanță în Afaceri Rentrop and Straton, *Pensiune turistică și agroturistică*, București, 2010.

[4] x x x - Institutul Național de Statistică, *Anuarul statistic al României, 1990 - 2008*.

[5] Web sites: [www.insse.ro](http://www.insse.ro), [www.europa.eu](http://www.europa.eu), [www.worldbank.org](http://www.worldbank.org), [www.antrec.ro](http://www.antrec.ro).

## SUBSIDIES ALLOCATION IN AGRICULTURE AND ITS EFFICIENCY: THE CASE OF THE REPUBLIC OF MOLDOVA

Liliana Cimpoies<sup>1</sup>

<sup>1</sup>The State Agricultural University of Moldova, Chişinău, 44 Mirceşti, MD-2049 Chisinau, Republic of Moldova, Phone: +373 79295721, Fax: + 373 22 312276, E-mail : [liliana.cimpoies@hotmail.com](mailto:liliana.cimpoies@hotmail.com)

*Corresponding author:* [liliana.cimpoies@hotmail.com](mailto:liliana.cimpoies@hotmail.com)

### *Abstract*

*This paper presents the evolution of subsidies allocations in Moldova's agricultural sector and the impact of subsidies on agricultural outputs and profits. The data used were provided by the National Bureau of Statistics, the Agency for Interventions and Payments in Agriculture, as well as data from agricultural farms collected by the author. The results show that despite the fact that the amount of subsidies have increased during the last years, their amount is still low. The carried research of agricultural farms in the period of 2007-2009 demonstrates that only 239 enterprises received subsidies over 650 lei per ha, thus obtaining 1522 lei per ha profit and a profitability rate of 29,6%. In the same time, the regression analysis reveals that not all the subsidized directions are efficient. According to it, the most efficient are the subsidies oriented to support the establishment of multiannual plantations (0,79) and for capital investments (0,5). More inefficient farms are able to absorb larger amount of subsidies without obtaining any positive results, therefore subsidies should be allocated to the farms relatively efficient in order to achieve higher results.*

*Key words:* subsidies, farmers, agricultural sector, agricultural policy.

### INTRODUCTION

In many countries state support for agriculture is a widely spread practice. In the opinion of many scientists and politicians, the market can cause harm to agriculture and food supply when the state relies on its forces only. The specific reasons for the above mentioned are: the high risks of agricultural production, the long production period, difficult access to loans, the large demand for assets in turn-over. In the conditions when state support for agriculture is missing, may be over-used the natural resources, causing harm to environment, becoming unable to meet quality standards and leaving many people at the edge of hunger.

### MATERIAL AND METHODS

The aim of this study is to analyze the evolution of subsidies allocations in Moldova's agricultural sector and the impact of subsidies on agricultural outputs and profits. The study was based on the data provided by the National Bureau of Statistics, the Agency for Interventions and Payments in Agriculture, as well as collected data from the

agricultural enterprises. In the given research were used various economic and statistics methods as: grouping method, table method, regression analysis and others.

### RESULTS AND DISCUSSIONS

For Moldova, as other countries in transition to market economy, led to different problems concerning changes in ownership relations, transition from a planned economy to market, adaptation of the agro-industrial complex components to the new conditions (market), the development of market infrastructure, investments process etc.

The agricultural policies promoted during the last decade followed some objectives, common for transition economies, being used a number of actions aimed at stopping the further degradation of the agri-food sector. The financial resources allocated from governmental budget were oriented in financing, mostly partially, some programs for supporting agricultural producers, subsidizing of production risks in agriculture, supporting the grape production and wine making sector etc.

Therefore, in 2007 were elaborated the National Strategy for Sustainable Development of the agro-industrial complex until 2015, being reflected the main strategic objectives of sustainable development of the agri-food sector and the policies needed for the implementation of these objectives, as well being elaborated a plan of actions for accomplishing the proposed objectives. This includes at the national level an amount of political, economical and social actions oriented to the development of the agri-food sector, having as major goal the insurance of a sustainable growth in the agricultural sector, improvement of living conditions in rural areas through the increase of competitiveness and productivity of the given sector [2].

One of the key elements of the governmental policy is the state support to the agricultural sector. The aim of subsidies allocation problem is to increase benefits form governmental support while bringing the related negative effects to a minimum, particularly in countries which are facing in the same time with low competitiveness of agricultural production and scare accumulated capital that could be used for reconstruction of the sector.

In 2007 was adopted the Conception of subsidizing agricultural producers until 2015 with the aim to elaborate and implement a new mechanism for subsidizing farmers, being increased the number of destinations for the allocation of financial resources thus leading to the achievement of governmental objectives for economic growth and poverty reduction. According to this, the subsidies granted to farmers are oriented into two priority direction: the modernization of the agricultural sector (by the creation and manipulation of processing units for agricultural production, the endowment with technical equipment and machinery, insurance with agricultural raw materials, creation of new vineyards etc.) and the performing activities inside the crop production and livestock sector (oriented towards the increase of productivity and competitiveness, insurance of country's food security and fair incomes for farmers by offering direct payments according

to the agricultural crops, animal species, area, size of livestock etc.) [3].

Until 2010, the subsidizing fund was administrated by 4 institutions (about 70% of the fund's resources being administrated by the Ministry of Agriculture). Therefore, being noticeable a number of deviations from the Conception of agricultural producers subsidizing system. Among these could be mentioned that the resources of the fund are distributed randomly through the country, and the lack of transparency in their distribution (no lists of beneficiaries, members of subsidies distribution committees) [1].

In 2010 were created the Agency of Interventions and Payments in Agriculture, being the only institution responsible for the administration of the subsidizing fund resources. By this, were solved the previous existing problems, being published the lists of beneficiaries, the lists of demands on specific subsidies direction etc.

According to the data provided by the Agency of Interventions and Payments in Agriculture in 2010 had increased the amount of subsidies allocated to households, holding a share of 27% from the fund's resources.

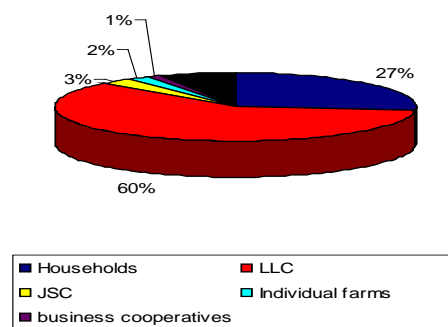


Fig. 1: The distribution of subsidies among legal forms, 2010

Concerning the amount of the subsidies from budget during the last three years, is necessary to mention, that the largest share is taken by the crop production (about 60% in 2009), followed by other subsidies for the agro-industrial complex, and the subsidies for livestock sector with the smallest share (being insignificantly increased in 2009 with about 3% compared to 2007).

Among the directions for which had been allocated the funds, the largest share belongs to subsidizing of plant protection products and

fertilizers users (about 40% in 2008, 16% - 2009). It is noticeable an increase in the share of meanings for stimulating the capital investments inside the subsidizing fund (e.g. subsidizing sugar beet producers).

According to the data from table 1, is noticeable that the amount of allocated subsidies had increased by 50 times in the analyzed period. The largest share belongs to subsidizing agricultural producers (67,8%). Nevertheless, the amount of allocated subsidies is still low.

A largest share in subsidies allocation belongs to crop production, as a result of its high share in the gross agricultural output (about 70%). Concerning its distribution, about 40% of crop production and 34% of livestock subsidies are for the enterprises located in the country's North region (Fig. 2).

Subsidies allocation in the agricultural sector are aimed at supporting the farmers and has a positive impact in increasing the amount of production, quality etc. Thus, is necessary to mention that during 2007-2009 only 53% of enterprises were subsidized.

Table 1: The amount and structure of subsidies during 2005-2009 in the Republic of Moldova

Indicators	Years				
	2005	2006	2007	2008	2009
<b>Total, mio lei</b>	<b>76,7</b>	<b>72,0</b>	<b>357,5</b>	<b>328,6</b>	<b>413,3</b>
<b>Total, %</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
including: Subsidies for agricultural production and compensation of costs, thousands lei	254	3214	24888	30733	18675
Share, %	0,3	4,5	7,0	9,4	4,4
Subsidies for agricultural producers	-	-	188287	200158	280265
Share, %	-	-	52,7	60,9	67,8
Compensation of costs for planting perennial plantations, thousands lei	42588	24076	-	-	9561
Share, %	55,5	33,4	-	-	2,5
Compensation of agricultural enterprises losses from natural diseases, thousands lei	30749	43437	41536	7465	9102
Share, %	40,1	60,3	11,6	2,3	2,3
Other subsidies, thousands lei	-	-	102683	90267	94931
Share, %	-	-	28,7	27,5	22,9

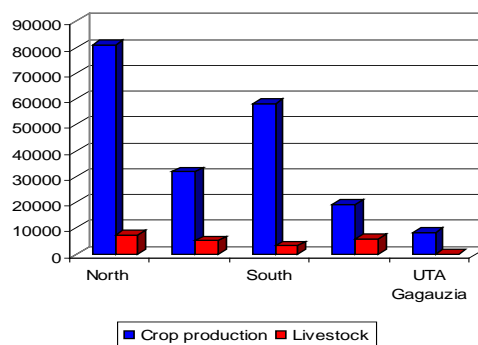


Fig. 2: The amount of subsidies allocated from state budget, by regions (2007-2009), thousands lei

Analyzing the data from the table 2, is noticeable that the amounts of subsidies allocated are different by groups, and the lowest amount belongs to farms from the first group. The next groups (from 50-650 lei per ha) the amount of subsidies is higher, allowing obtaining a profit until 530 lei per ha. The impact of subsidies is more efficient for the last group of farms who beneficiate from an amount upper than 650 lei per ha and thus obtaining better economic results (1522 lei per ha). This group also has the highest level of profitability – 29,6%. Therefore, is more efficient the allocation of subsidies to the farms that are carrying out a stable economic and financial activity.

Table 2: The impact of the amount of subsidies on the indicators of economic efficiency of agricultural farms of Republic of Moldova in 2007-2009

Indicators	Groups according to the amount of subsidies per ha, lei						Total
	>50	50 - 200	200 - 350	350 - 500	500 - 650	>650	
Number of farms	98	282	216	153	111	239	1099
% from the total number	8,9	25	19	14	10	21	100
Area of agricultural land per 1 farm, ha	458	603	707	805	881	606	667
Subsidies per ha, lei	27	130	270	422	567	1109	453
Material costs per ha, lei	1669	2049	2766	2481	3050	4190	2804
Retribution per worker, lei	9344	8935	10064	10548	10689	12515	10693
Gross agricultural product per ha, lei	2150	2182	2807	3010	3832	6273	3477
Profit per ha, lei	103	213	232	255	530	1522	518
Level of profitability, %	0,5	10,9	15,5	12	15,2	29,6	17,7

The inefficient enterprises can absorb a larger amount of subsidies than the relatively efficient farms. Governmental financial resources are limited; therefore subsidies should be distributed to the enterprises that will obtain a higher efficiency from its allocation.

The linear regression analysis of the amount of the allocated subsidies in 2009 and the profit obtained per ha, shows a quite weak influence on increasing profits ( $R=0,37$ ). According to the obtained results ( $y = -54,30 + 2,5x$ ) if the subsidies will increase with one thousands lei, the profit increases with 2,5 thousands lei.

In the table below are presented the results of the multiple regression, of the influence of obtained profits per ha and the main subsidized directions. In the calculus where included only those main subsidizing directions that allowed to include a maximal number of enterprises.

The utilized factors demonstrate the dispersion of the profit at the level of 74%. As a result of the multiple regression analysis were obtained the next equation:

$$y = -163,3 - 11,05 x_1 + 4,88 x_2 + 0,31 x_3 + 0,46 x_4$$

Table 3. The influence of main coefficients of multiple regression

Dependent Variable (Y)	R	R <sup>2</sup>	Independent variables	B	Beta
Profit per ha	0,86	0,74	Subsidizing sugar beet producers (X1)	-11,05	-0,26
			Subsidizing establishments of multiannual plantations (X2)	4,88	0,79
			Subsidizing purchasing plant protection materials and fertilizers (X3)	0,31	0,14
			Subsidies for capital investments (X4)	0,46	0,49

The carried regression analysis demonstrates that not all the subsidized directions are efficient. The highest impact on profits has the subsidizing of establishment multiannual plantations (0,79) and subsidizing capital investments (0,5). The results shows that increasing the amount of subsidies for establishing multiannual plantations with one

thousands lei will grow the profit with 79 thousands lei, from purchasing plant protection materials and fertilizers – 31 thousands lei, and capital investments – 49 thousands lei. Therefore, even when are available limited financial resources there are possibilities for a better distribution of resources.

## CONCLUSIONS

1. Subsidies allocation are important for the developing of the agricultural sector, but the existing system does not create incentives for the efficient farms activity;
2. Priority for granting subsidies should be for those farmers that are carrying out a stable economic activity and improve their financial situation from beneficiating of subsidies, contributing to the increase in branch efficiency.

## REFERENCES

- [1] Chivriga V., „Sistemul de subvenționare în agricultură: situația actuală și perspective”, Institutul pentru Dezvoltare și inițiative Sociale „Viitorul”, Chișinău 2006, p.15-20.
- [2] Monitorul Oficial al Republicii Moldova. 2008, nr. 57-60 nr. 282 din 11 martie 2008 - Hotărârea Guvernului Republicii Moldova cu privire la aprobarea Strategiei naționale de dezvoltare durabilă a complexului agroindustrial al Republicii Moldova (2008-2015), p. 20-41.
- [3] Monitorul Oficial Nr. 188-191 art Nr: 1356 - Hotărârea Guvernului Nr. 1305 din 28.11.2008 cu privire la aprobarea Concepției sistemului de subvenționare a producătorilor agricoli pentru anii 2008-2015.

## IS RURAL DEVELOPMENT POLICY IN SLOVENIA REALLY SUSTAINABLE?

Tomaz CUNDER<sup>1</sup>, Matej BEDRAC<sup>2</sup>

<sup>1</sup>B.Sc. geogr., Agricultural Institute of Slovenia, Department of Agricultural Economics, Hacquetova 17, 1000 Ljubljana, Slovenia, Phone:+386-28-05-110, Fax:+386-28-05-255 e-mail: [tomaz.cunder@kis.si](mailto:tomaz.cunder@kis.si)

<sup>2</sup>B.Sc. agriculture., Agricultural Institute of Slovenia, Department of Agricultural Economics, Hacquetova 17, 1000 Ljubljana, Slovenia, Phone:+386-28-05-225, Fax:+386-28-05-255 e-mail: [matej.bedrac@kis.si](mailto:matej.bedrac@kis.si)

**Corresponding author** :[tomaz.cunder@kis.si](mailto:tomaz.cunder@kis.si)

### Abstract

*Slovenia defined its basic goals of agricultural policy by adopting Strategy of Slovenian Agriculture in 1993. The "eco- social orientation" of development of agriculture had been decided. The main objective of Slovenian agricultural policy was permanent increase of competitiveness in accordance with social and environmental functions of agriculture. In the paper the implementation of the Rural development programme 2007-2013 is analysed. According to the analysis of the programme priorities it is possible to conclude that at least at strategic level all components of sustainable development are considered. An analysis of the implementation of the measures shows that there is great imbalance between the strategic goals and actual implementation of the programme. In the first three years of the implementation majority of the funds were allocated to the measures which pursuing economic and environmental components of sustainable development while the measures which pursuing social and especially spatial aspects lagging behind.*

**Keywords:** agricultural policy, rural development, sustainability, Slovenia

### INTRODUCTION

Slovenia is a small European country with above average share of rural areas. According to OECD classification 77% of the entire national territory is designed as rural areas and has around 40% of total population [5]. Despite this classification agriculture contributes relatively small share to Slovenia's GDP. Over the last fifteen years this share has declined from around 5% in 1990 to 1.1% in 2008. Despite the small share in GDP agriculture has always played an important role in the development of rural areas.

Agriculture in Slovenia has a much wider role than just production of food. Apart from its production function, agriculture encompasses other functions such as the preservation of the rural landscape, the protection of the environment and contribution to the viability of rural areas.

In 1993 Slovenia adopted Strategy of Slovenian Agriculture where long-term

objectives of agricultural policy were defined. The strategy emphasizes the eco-social role of agriculture and its main goals were stable production of cheap and quality food, the preservation of population density in the countryside, permanent increase of competitiveness and guaranteed parity income for agricultural producers [1]. These objectives have to be achieved so that agriculture plays its economic, spatial, environmental and social role.

### MATERIAL AND METHODS

The paper consists of three parts. General objectives of Slovene agricultural policy and the basic characteristics of rural areas in Slovenia are presented in the first part. Second part comprehends a qualitative analysis to determine to what extent individual measures pursuing economic, environmental, spatial and social aspects of integrated rural development. In the third part the implementation of the measures in



Slovenian Rural development Programme 2007-2013 is analysed. The paper is based on desk research drawing from literature, legislation, programming documents and available research studies. All data for analysis are gathered from the Slovenian legislation, Statistical Office of the Republic of Slovenia and the Ministry of Agriculture, Forestry and Food.

## RESULTS AND DISCUSSIONS

### Basic characteristics of rural areas in Slovenia

Klemencic et al. describe five characteristics which are important for sustainable rural development. They are: demography, economy, structure of agricultural holdings, environment and social aspect [3].

Slovenia has unfavourable demographic structure in rural areas. Out-migration of young people and large percentage of people above 65 years have negative impact on sustainable development. According to the results of the latest agricultural sample census the number of family members on agricultural holdings decreased from 323 thousands in the year 2000 to 258 thousands in the year 2007. Almost 60% of holders of family farms are older than 55 years.

There is strong connection between the development level of the region and the share of agriculture. Regional disparities are bigger in the regions with the higher share of agriculture. Although agriculture contributes less than 2% to Slovenia's GDP it is still an important economic activity, especially in the regions where there is the lack of other employment possibilities.

Unfavourable size structure and low level of specialization of agricultural production remains the greatest difficulties of agricultural sector in Slovenia. According to the preliminary results of the latest agricultural census (2010) there are around 75.000 agricultural holdings in Slovenia and the average size of agricultural holdings is 6.3 hectares of utilised agricultural area.

Slovenian farms are too small in a view to ensuring enough income for all family members. Almost 75% of farm holders earn

additional income from off-farm sources. According to the data from Farm Structure Survey in 2007 about 4% of agricultural holdings were diversified in other economic activities. The prevailing supplementary activities on farms are machinery services, food and wood processing and rural tourism. As already noticed above rural areas in Slovenia have important social function. There are over 6.000 settlements and only 55 of them are considered as urban [2]. Relatively unfavourable natural conditions result in dispersed settlement and large number of small settlements, since only 16 has more than 10.000 inhabitants. Slovenia is relatively sparsely populated. Almost 60 % of the total population lives in densely populated basins and valleys, while in hilly part prevails small settlements with mostly aging population. There is strong correlation between rural areas with the lowest population density and the size of the settlements.

### Rural development Programme 2007-2013

Slovenia implements its rural development policy through Rural Development Programme 2007-2013 (RDP). Its primary purpose is promotion of sustainable rural development. In this programming period within four development axis 21 measures in total amount of 1.177 millions of € is implemented. The following table shows distribution between different axes of the programme [4,8].

Table 1: Financial plan by axes in the period 2007-2013

Development axis	Total (€)	Share (%)
Axis 1:	402.023,2	34,2
Axis 2:	592.890,8	50,4
Axis 3:	136.308,0	11,6
Axis 4:	33.760,0	2,9
Technical assistance	12.003,6	1,0
Total	1.176.985,6	100,0

Source Rural Development Programme Slovenia 2007-2013

The planned division of the public funds between the different axes of the programme shows that 34 % is devoted for Axis 1 measures. Measures in Axis 2 will get more than half of available funds, while 11% is devoted for Axis 3 measures. Approximately

3% of available funds are devoted to the implementation of LEADER axis.

The measures and activities under axis 1 are aimed at improving the competitiveness of agriculture and forestry sector. The range of measures includes farm modernisation, strengthening human potential and improving the quality of agricultural products.

Among the measures of the 1<sup>st</sup> axis are three measures which are pursuing mainly social component of sustainable development: Training for persons engaged in agriculture and forestry, Supporting young farmers and Early retirement for farmers. These measures improve education structure and employability in agriculture and agri-food industry.

Second group of measures under this axis are aimed at upgrading and restructuring of agricultural holdings and pursuing predominantly economic component of sustainable development.

Third group of measures under this axis are intended to improve the quality of agricultural and agri-food products with incentives for inclusion of producers in food quality schemes.

Axis 2 is dedicated to improve the environment and the countryside. In the frame of this axis are implemented compensatory allowances for Less Favourable Areas (LFA) and agri-environmental payments. Slovenia has unfavourable conditions for intensive agricultural production since there is around 85% of total area considered as LFA areas. The main objective of LFA payments are prevention of agricultural land from abandonment, maintenance of cultural landscapes and retention of settlement on the countryside.

Second group of measures under 2<sup>nd</sup> axis are agri-environmental payments which are aimed at the implementation of the environmental friendly practices, promotion of agricultural production compliant to the consumer's demands as well as human health, assuring sustainable utilisation of natural resources and supporting the conservation of biodiversity and characteristics of the Slovenian landscape. The measures are divided into three main groups which define

their characteristics and contents. In the first group are measures which reduce the negative impacts of agriculture on the environment (7 measures). Second group of measures is directed to the preservation of nature, biodiversity, soil fertility and traditional cultural landscape (8 measures). The third group of measures under agri-environmental payments ensures maintenance of protected areas (6 measures).

Measures under Axis 3 are dedicated to improve the quality of life in rural areas and promote the diversification of economic activities. Lack of other employment possibilities outside the agriculture and poor traffic infrastructure causes depopulation of rural areas. Especially in the remote region this could lead to the abandonment of agriculture production and overgrowing of agriculture land. Activities under 3<sup>rd</sup> Axis are divided into two groups. In the first group are two measures which promote the diversification of income and creation of jobs in rural areas. In the second group are measures which improve the quality of life in rural areas. They are aimed at improving living conditions in rural areas and to conservation and upgrading of rural heritage. Most of the funds are devoted to investments for creation and development of micro enterprises, especially on the field of tourism. The development of micro enterprises is particularly important in remote areas with limited employment opportunities.

Under 4<sup>th</sup> axis of Rural Development Programme Slovenia implements local development strategies which are based on endogenous development potentials and active role of local communities.

The LEADER axis is important in terms of including wider sector of the population in the programme and promoting public-private partnerships in promoting rural development. Grants are set aside for building local partnerships, promoting cooperation and innovation, as well as improving local management. The main objective of the LEADER approach is integrated rural development on a local level. In this programming period Slovenia has 33 Local

Action Groups, which covers 97% of rural areas and 94% of rural population [7].

According to the analysis of the priorities in National Strategy Plan and the measures in the Rural Development Programme 2007-2013 it is possible to conclude that at least at strategic level all components of sustainable development are considered. The qualitative assessment of sustainable development is presented in the Table 2.

Table 2: Qualitative assessment of sustainable development at the level of development axis of RDP 2007-2013

Development axis	Aspects of sustainable development			
	Economic	Social	Environment.	Spatial
Axis 1:	XXX	XX	X	X
Axis 2:	XX	X	XXX	XXX
Axis 3:	XXX	XX	XX	XX
Axis 4:	XX	XX	XXX	XX

### Implementation of Rural development Programme 2007-2013

The implementation of the measures under 1<sup>st</sup> axis is conducted through public tenders. In the first three years of the implementation 32 public tenders for all 10 measures were published. Altogether 3.464 applications were approved in the total amount over 141 millions of € which represents 35% of available funds for the whole programming period. In the Table 2 available funds for the whole programming period and share of already allocated funds according to available funds for individual measures are presented [4,8].

Table 3: Available funds for the Axis 1 and absorption in the period 2007-2009

Axes 1 Measures	Available (000 €)	Absorption (%)
Training in agriculture	10.070,2	0,3
Supporting young farmers	35.253,2	52,8
Early retirement of farmers	38.097,9	25,2
Modernisation of holdings	90.872,3	55,1
Improving economic value of forests	24.939,3	99,1
Adding value to agricultural products	93.172,0	36,1
Improv in and developing infrastructure	43.633,9	15,6
Participation in food quality schemes	16.069,0	0,4
Supporting producer groups	6.619,3	61,4
Supporting setting up of producer group	1.471,5	13,8

Source: Rural Development Programme Slovenia 2007-2013 and Annual report about the situation in agriculture 2009

The biggest absorption of funds has been for the following measures: Improving economic value of forests, Supporting producer groups and Modernisation of agricultural holdings.

More than half of all applications were approved for the measure Modernisation of agricultural holdings where prevail investments in stables and purchase of agricultural machinery.

The beneficiaries for LFA and agri-environmental measures are granted at the basis of Decree on payments for measures of axis 2 from the Rural Development Plan for the Republic of Slovenia. They have to file the claims on an application form which is also used for submitting claims of first pillar of the CAP. It appears that LFA payments in a great extent pursuing all aspects of sustainable development. According to the data from the Agency for Agricultural Markets and Rural Development over 48 thousands agricultural holdings participated in the LFA scheme. Almost 42 millions of € were spent for over 320 thousands of hectares of utilised agricultural area in year 2009.

Compensatory allowances for Less Favoured Areas considerably contribute to income of farmers in handicap areas. In connection with basic criteria of good farming practice, the measure contributes to preservation of agricultural land and therefore improves the environmental functions. The measure has a positive social impact on sustained presence of farmers with lower population density [6].

Approximately 38 millions of € has been spent on agri-environment schemes in 2009. Area included in the implementation of agri environment measures is slightly decreasing. In 2009, these measures affected 284 thousands hectares of agricultural land while in 2008 their extent was 323 thousand hectares. In 2009, the most important measures were Sustainable rearing of domestic animals and Greening of arable land which covered 139 thousands of hectares.

The absorption of agri environmental measures is still relatively good in spite of the decrease in the year 2009. The decrease is a result of finished 5 years contracts from the previous programming period and some farmers didn't conclude new contracts.

Agri-environmental measures definitely have a positive influence on the environment, whether by decreasing the negative impact of agriculture or through maintaining the current

state. They are aimed at long-term improvement of natural resources in Slovenia. Agri-environmental measures have also positive impact on improvement of skills and qualifications for the implementation of sustainable agricultural practises [6].

The implementation of the measures under 3<sup>st</sup> axis is also conducted through public tenders. In the first three years of the implementation 12 public tenders for all 4 measures were published. Altogether 425 applications were approved in the total amount of almost 39 millions of € which represents 31% of available funds for the whole programming period.

Table 4: Available funds for the Axis 3 and absorption in the period 2007-2009

Axes 3 Measures	Available (000 €)	Absorption (%)
Diversification into non agricultural activities	31.551,0	40,9
Support for the creation of micro enterprises	55.520,1	32,6
Village renewal and development	30.259,0	21,2
Conservation and upgrading of the rural heritage	14.709,0	8,5

Source Rural Development Programme Slovenia 2007-2013

Throughout the programme period over 40% of available funds for the measure Diversification into non agricultural activities has been allocated. Almost half of all applications under 3<sup>rd</sup> axis were approved for the measure Support for the creation of micro enterprises where investments in wood processing industry are prevailing. The absorption of funds within this axis is relatively low due to the fact that all measures except the measure Diversification into non agricultural activities were carried out for the first time. Applications are often incomplete or poorly prepared and applicants have a lot of difficulties with administrative procedures and acquisition of the data from official records.

The implementation of the 4<sup>th</sup> axis is carried out through Annual implementation plans which are prepared by Local action groups. By the end of 2009 396 projects in the total amount over 12 millions € were approved. Majority of the projects contribute to 3<sup>rd</sup> axis and only few of them contribute to 1<sup>st</sup> and 2<sup>nd</sup> axis of RDP. A lot of projects directly

contribute to demographic development and education of local inhabitants.

An analysis of the implementation shows that there is great imbalance between the strategic goals and actual implementation of the programme. In the first three years of the implementation majority of the funds were allocated to the measures which pursuing economic and environmental components of sustainable development while the measures which pursuing social and especially spatial aspects legging behind.

## CONCLUSIONS

Based on the results of our assessment and allocated funds in the first three years of the implementation of the programme it may be concluded that:

1. On the strategic level sustainable development of rural areas represents one of the main Slovenian development orientations.
2. The majority of available funds are devoted to the promotion of environmentally friendly farming and improving economic efficiency and competitiveness of agricultural production. For the measures which in a great extent pursuing social and spatial functions of sustainable development only 20% of all funds are available.
3. The LFA payments are pursuing all aspects of sustainable development. The new system for delimitation the less favoured areas which assess individual agricultural holdings particularly emphasises spatial aspect of sustainable development.
4. Despite of relatively small amount of available funds for horizontal LEADER axis those measures have great impact in local capacity building and inter-sectoral cooperation. These are crucial for integrated and sustainable rural development in Slovenia.

## REFERENCES

- [1] MAFF, 1992, Strategy of Slovenian Agriculture, Ministry of Agriculture, Forestry and Food, Ljubljana, 88 p.

[2] Potocnik Irma , 2001, Geographical aspect of rural areas: Transformation in Slovenia, Bulletin de la Société géographique de Liège no. 41, p. 69-76

[3] Klemenčič, M., Lampič, B., Perpar, A., Potočnik Slavič, I., Slabe, A. 2005. Ciljni raziskovalni program "Konkurenčnost Slovenije 2001-2006", Strukturni problemi in razvojni izzivi slovenskega podeželja v evropski razsežnosti: končno poročilo. Ljubljana: Oddelek za geografijo, Filozofska fakulteta, Biotehniška fakulteta, Inštitut za trajnostni razvoj.

[4] MAFF, Rural Development Program of the Republic of Slovenia 2007-2013, 2007, Ministry of Agriculture, Forestry and Food, Ljubljana, 323 p.

[5] MAFF, National Strategy Plan for Rural Development 2007-2013, 2007, Ministry of Agriculture, Forestry and Food, Ljubljana, 55 p.

[6] Cunder Tomaz, 2006, The role of rural development policy in environmental and land management in Slovenia, in 1st International Conference on Agriculture and Rural Development. Competitiveness, multifunctionality and sustainability: a new perspective for agriculture and rural areas in Central and Eastern Europe : conference proceedings, Topusko, Croatia, November 23 - 25, p1-7

[7] BEDRAČ Matej, CUNDER Tomaž, 2010, "LEADER" approach and local development strategies in Slovenia. in FIELDSEND, Andrew (ur.). *Linking competitiveness with equality and sustainability : new ideas for the socio-economic development of rural areas*, (Rural areas and development, 7). Debrecen: University of Debrecen, Centre of Agricultural Sciences and Engineering and Institute of Agricultural and Food Economics - National Research Institute, p. 245-256

[8] VOLK, Tina, REDNAK, Miroslav, CUNDER, Tomaž, BEDRAČ, Matej, PINTAR, Marjeta, MOLJK, Ben, ZAGORC, Barbara, ZEMLJIČ, Andrej, ŠKOF, Mojca. *Poročilo o stanju kmetijstva, živilstva in gozdarstva v letu 2009*

[9] SORS, 2010, Economic accounts for agriculture, Slovenia, 2008, Rapid reports, Statistical office of the Republic of Slovenia, Ljubljana, 20 p.

## THE IMPORTANCE OF ECOMARKETING IN DEVELOPING OF ECOTOURISM IN ROMANIA

Cristian CUTAȘ<sup>1</sup>, Petrică ȘTEFAN<sup>2</sup>, Silviu GHEORGHE<sup>3</sup>

<sup>1</sup> General Division of Foreign Relations - Ministry of Economy, Commerce and Business Environment, 16, Ion Câmpineanu, sect. 1, 010036, Bucharest, Romania, Ph: +40.21.401.0564, Fax: +40.21.315.0961, cristian.cutas@dce.gov.ro

<sup>2</sup> University of Agronomical Sciences and Veterinary Medicine, No. 59, Blvd. Marasti, sect. 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, 0723554321, Fax: + 40 21318 28 88, stefanmarian2004@yahoo.com

<sup>3</sup> University of Agronomical Sciences and Veterinary Medicine, No. 59, Blvd. Marasti, 011464, Bucharest, Romania, (+49) 021/2242815, 0764-501.690, tulcea@antrec.ro

*Corresponding author* : cristian.cutas@dce.gov.ro

### Abstract

*Ecotourism appeared in order to satisfy the people's need to retreat in the middle of nature and to visit and know natural areas still unaffected or little affected by man's presence and activity. The first steps in developing ecotourism have already been made: the protected areas perimeters have been established, most of them (26 out of 28) have their own administrative structures, projects have started to develop for the conservation, the development of (eco)tourism or for raising awareness at local level. For most protected areas, management plans have been elaborated, certain good practices models have been created. Ecomarketing deals with promoting these products and services. It promotes the products and services which have ecological benefits and low impact on the environment, in other words „eco” characteristics. Nevertheless, in Romania there are still many things to improve in this domain.*

**Keywords:** ecotourism, ecomarketing, „eco” products and services, ecological benefits.

### INTRODUCTION

The year 2002, as the International Year of Ecotourism [Nistoreanu and collaborators 2003], generated a series of activities worldwide, the most important of which were regional conferences and the World Ecotourism Summit. Within it was stated that ecotourism is a clear way to actually implement sustainable development, the summit ended with the Quebec Declaration, document which synthesises the role and impact of ecotourism on the environment, local communities, economic and social activities in general.

Ecotourism [Swanson] means travelling most often to emerging countries towards relatively undisturbed natural areas in order to study, relax or for voluntary assistance aimed at the flora, fauna, geological structures and ecosystems in an area, as well as the people

living in the surrounding area, their needs, culture and relationship with the land.

### MATERIAL AND METHODS

In 2020, at national level, famous ecotourist destinations will be created, which will contribute to the improvement in the local communities' life, to protecting and preserving natural resources and to providing quality tourist services. All these actions will turn Romania into an internationally acknowledged ecotourist destination.

#### **General objective:**

To create the conditions for the development of ecotourism at the level of protected areas and in their neighbouring areas, aiming at achieving a tourist product that is competitive nationally and internationally.

The national strategy for the development of ecotourism was developed based on a set of priority domains.

## RESULTS AND DISCUSSIONS

### Strategic actions for the development of ecotourism in Romania

The objectives<sup>1</sup> identified for the achievement of the general objective are presented in figure no. 1

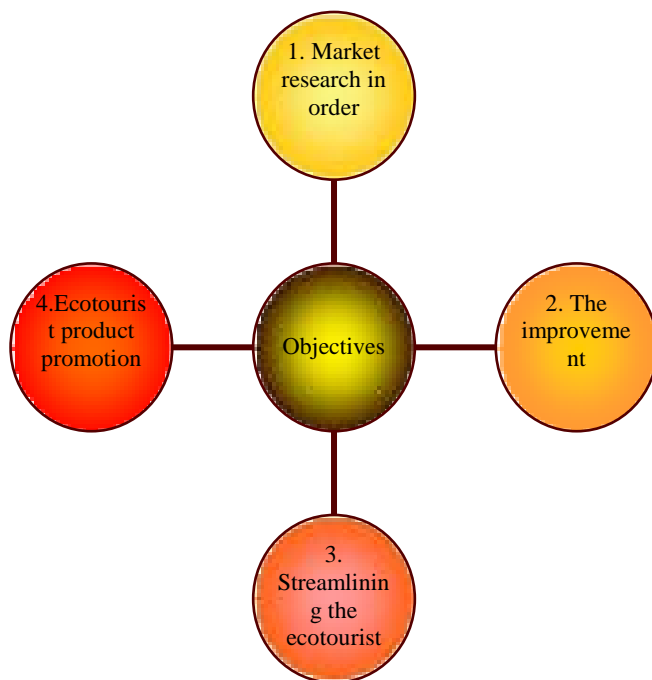


Fig. 1. Objectives of Ecotourism Development Strategy

**Objective no. 1.** To intensify the market research activity in order to create a database available to all the organisations involved in ecotourism which will facilitate the decision-making process.

In order to achieve this objective, the following actions will be identified, as shown in figure 2.

Action no. 1.1. Gathering the information in order to create the database

Action description:

In order to maximise the marketing research contribution, regardless of its type, to the decision-making process, this complex activity must be organised most carefully, based on the same management principles as in the case of other marketing activities. In

order to obtain a database necessary in substantiating the decisions of all the actors involved in this type of tourism, office research, surveys, field research, etc., may be organised as follows:

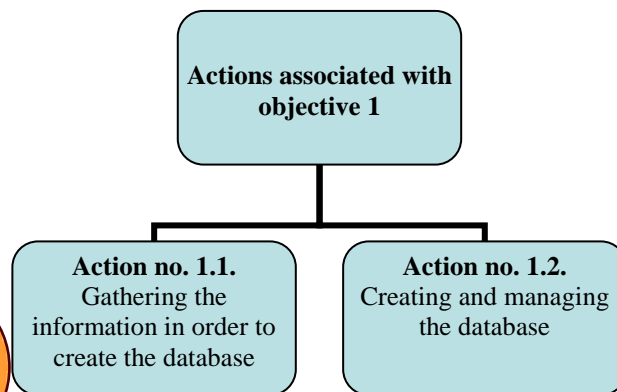


Fig. 2. Actions associated with objective 1

- ✓ performing market research: a market segmentation survey; image surveys on the target markets; performing surveys on the demand pattern and distribution, the consumer's profile (motivation, needs, social categories, what is expected from a destination, how much they are willing to pay) etc.; the analysis of the competition (supplied products, weaknesses, strengths, competitive edge, etc.);
- ✓ the analysis of the existing ecotourist product – identifying each destination's weaknesses/strengths, identifying the differentiation/uniqueness elements, identifying ways to develop/diversify the ecotourist product/experience, identifying the products that will be promoted at international level at the first stage of the promotion strategy;
- ✓ the periodic control of the effectiveness of the mechanisms implemented through the strategy;
- ✓ establishing a protocol with the National Institute of Statistics for the provision of periodical data on the destinations with ecotourist potential;
- ✓ the periodical update of the data and results obtained, the performance of

<sup>1</sup> INCDT – The National Institute for Research and Development in Tourism, "The National Strategy for the Development of Ecotourism in Romania, Stage II, THE STRATEGIC PLAN FOR THE DEVELOPMENT OF ECOTOURISM IN ROMANIA", November, 2009

new research required by the market evolution.

The results to be obtained from this action are: surveys, reports, statistical data will be obtained and it will be possible for all the actors involved in the ecotourist activity to access them; knowledge of the realities of the market we target and the accurate substantiation of the decisions that will be made about the ecotourist product; the availability of statistical data that quantify the tourist flow recorded in national/natural parks; better planning of the visitors' management activities in protected natural areas.

The monitoring indicators targeted at this stage are: the number of reports, the number of surveys, monitoring indicator sheet, number of work meetings, participant lists, number of systems monitoring the visitor flows created. Number of parks which implemented visitor flows monitoring systems.

Possible funding sources for this action: The Ministry of Tourism, The Ministry of Environment.

Action no. 1.2. Creating and managing the database

Action description

The actual creation of the portal comprising the database implies the performance of the following sub-actions:

-creating the database in electronic format with password-based access for the organisations involved in the ecotourist activity;

-managing the database;

The results of performing this action: an electronic archive, easily accessible (it may be hosted by the Ministry of Tourism or separately). Links to this archive may be introduced on the websites of all the protected areas and of other organisations whose main activity objective is ecotourism.

The monitoring indicators are: database/portal in the interval 2011-2013, the number of visits/number of persons to which the information was disseminated in a 10-year interval, 2011-2021. Possible funding sources: The Ministry of Tourism.

**Objective no.2.** The improvement in the tourist experience quality

Action no. 2.1. Creating integrated ecotourist products/programmes

Action description

Cooperation among the local actors is the key to success in an effective ecotourist activity. Each of them may specialise in a certain direction but only together can they provide a complete and competitive tourist package. Under these conditions, it is necessary to take an integrated approach to both the tourist supply and the way in which it is organised in order to create diversified tourist programmes with a slower visitation rate, which polarise the main resources within the destination.

The ecotourist product within a destination may be integrated in unitary concept by means of:

-Developing a unitary slogan and logo at destination level, elements which will be used in all the promotional activities at destination level. In addition, a park brand may be developed, by means of which the products and services provided within the destination may be marketed;

-Creating innovative ecotourist products at destination level. They will be created in close cooperation among the factors involved, and within these products, all the tourist opportunities provided by the destination will be used – hiking and activities in the open (rafting, canoe, horse riding, climbing, observing animals, bicycle rides, tour skiing, etc.), visiting tourist sheep farms, visiting cultural sights, participating in agricultural and craftsman activities within the local households, participating in local events etc.

The targeted results: individualising each ecotourist destination by providing characteristic products, guaranteeing the fact that the products and services provided are created at local level; providing higher accessibility to an integrated ecotourist product (natural area and tourist sights in the area surrounding the parks), increasing the activity range will lead to increasing the tourists' satisfaction and the number of days they spend within the destination.

Monitoring indicators for this action: the number of destinations that developed local brands; the number of local products promoted under the umbrella of one brand;



the number of issued access permits and ecotourist cards; the number of national / natural parks using the ecotourist cards system (completion period 2011-2013); the number of tourist programmes promoted at destination level (long term 2011-2021).

Possible funding sources<sup>2</sup>: APN, ADE, APN, ANTREC, ANAT, AER, ADE, APL

**Objective no. 3.** Streamlining the ecotourist distribution network

In order to achieve this objective, the following actions will be identified, as resulting from figure no. 3:

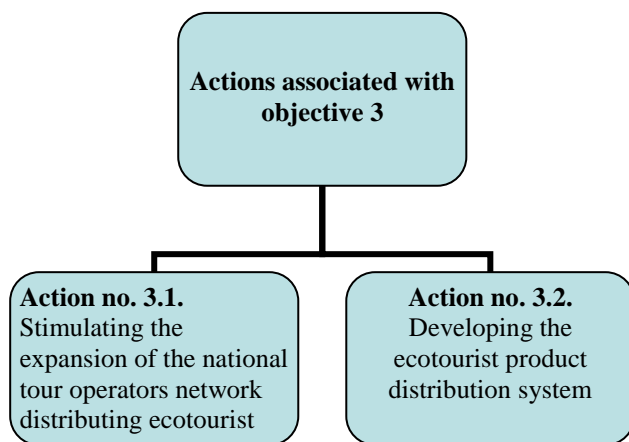


Fig. 3. Actions associated with objective 3

#### Action description

In order to maximise the marketing research contribution, regardless of its type, to the decision-making process, this complex activity must be organised most carefully.

**Action no.3.1.** Stimulating the expansion of the national tour operators network distributing ecotourist products

#### Action description:

Distribution ensures, by means of selling and buying, the market use of ecotourist products and, at the same time, their availability to consumers.

In order to implement this action, the following activities may be initiated so as to

raise the national tour operators' awareness of the advantages of distributing the ecotourist product by means of organising workshops and study tours;

The targeted results: tour operators will become much more interested in creating and distributing ecotourist programmes, thus contributing to the development of the market, of the supply, and also to increasing this product's visibility.

Monitoring indicators: the number of events organised for tour operators;

The completion interval: 2011 – 2014

Possible funding sources: The Ministry of Tourism

**Action no. 3.2** Developing the ecotourist product distribution system

Action description: In order to define the distribution means, the selection and establishment of the number of agents, the ecotourist destination must start from the size of its activity in general and from the distribution ones on certain markets in particular, so that next, according to them, it will be able to select the most advantageous strategic option. An evolution tendency of the tourist products and services distribution aims at involving the specialised suppliers and agents more visibly in using the opportunities provided by the new communication technologies.

-Establishing partnerships with foreign tour operators specialised in niche tourism and ecotourism;

-Establishing partnerships with organisations promoting foreign ecotourism.

Targeted results: increasing visibility and the access to an impressive mass of potential customers; increasing the number of tourist packages sold.

Monitoring indicators: the number of established partnerships; the number of booking systems set up; the number of systems adhered to; the number of ecotourist packages sold after the implementation of these measures/the sales evolution;

Completion interval: 2011 - 2013

Possible funding sources<sup>3</sup>: MT, ANAT, POR Axis 5 Domain 5.3.

<sup>2</sup> APN – National / Natural Park / Biosphere Reserve Administration  
 ADE – (Eco)tourism Development Associations  
 ANTREC - ANTREC – The National Rural, Ecological and Cultural Tourism Association  
 ANAT – The Romanian National Association of Travel Agents  
 AER – The Ecotourism Association in Romania  
 APL – Local Public Administrations

<sup>3</sup> MT – The Ministry of Tourism

**Objective no. 4.** Promoting the ecotourist product at national and international level

Promotion will be made both at central level (on the Ministry of Tourism initiative), and at local level (on the initiative of (eco)tourism development agencies)

Action no.4.1. Achieving the plan and the promotion campaign

Action description: At central level, the ecotourist product will be integrated in the national tourism promotion campaigns. Romania will be promoted as ecotourist destination, as well as the ecotourist destinations that are to be certified; also promoting ecotourist programmes and even guesthouses or agricultural producers actually supporting the ecotourist offer.

-In order to implement the action, the following are suggested:

-To create special section within the Ministry of Tourism promotion website dedicated to ecotourism. This section must be created in a logical and attractive structure to increase the degree of accessibility.

-To design an advertising campaign; emphasis will be laid on generating materials in specialised publications because it is considered that for this type of tourism the other media are not as effective;

-Making a public relations campaign;

Targeted results: making it possible for consumers and the general public to find out about Romania as an ecotourist destination and about its products, services and brands; creating a favourable attitude to the ecotourist destination Romania, to the type of tourism, to nature and to preserving the natural environment; influencing the purchase and consumption behaviour; developing long-term functional relationships with the media, which will improve Romania's overall image as an ecotourist destination.

Monitoring indicators: section within the promotional portal; the number of visits to the portal; the number of brochures, flyers, hoardings, posters; the tourist guide; the number of documentaries; the number of events; the number of participations to fairs

and exhibitions; the number of visitors to the stand.

The completion interval for this activity: 2011-2021.

Possible funding sources: MT, POR Axis 5 Domain 5.3.

Action no.4.2. Taking promotional actions at ecotourist destination level

Action description: In the future, at local level, the (eco)tourism development associations (ADE) will play a decisive role in managing the activities promoting the destination. The campaigns will target both the individual consumers and the specialised agents.

Within this action the following measures may be taken:

-performing outdoor advertising: advertising posters, banners.

-producing print-outs: brochures, fliers, maps, guides, calendars, postcards;

-creating or optimising the parks' websites, creating their own websites for the (eco)tourism development associations.

-participating to specific promotional events in the country and abroad (tourism fairs, special showrooms, topic-based seminars);

-the annual organisation of a seminar on topics such as ecotourism, sustainable development, environmental protection.

Targeted results: informing the potential ecotourist; boosting the fame of the destination; stimulating the desire to consume and to purchase; increasing the number of ecotourists; knowing and anticipating the trends of the market and of its specific segments; creating a positive image at market level, among the consumers and the media; the possibility to contact various suppliers, service providers and end consumers.

Monitoring indicators: the number of posters/banners; the number of printed materials; the number of websites created/optimised; the number of participations to events; the number of participants to events, the number of persons exposed to the message; the number of organised events.

Completion interval: 2011-2021

Funding sources<sup>4</sup>: ADE, APN, POR Axis 5 Domain 5.3., POS Environment Axis 4, donations. [3]

## CONCLUSIONS

In developing ecotourist products we must take into account that, generally speaking, the potential ecotourists have a high education level. Therefore, their expectations are much higher, and creating a product that satisfies these expectations is essential.

For the ecotourist product, we aim at designing a correct marketing, which must lead to realistic expectations on the part of the visitors. This implies providing customers with complete and responsible information which leads to increasing their respect for the natural and cultural environment of the visited areas and the tourists' satisfaction level.

Promotion the ecotourist product will be made both in a centralised way by means of the Ministry of Tourism—promoting Romania as an ecotourist destination, and by means of (eco)tourism development associations which will be created at destination level.

In Romania, we must progress from promoting isolated ecotourist products, provided by the parks' administrations or by specialised tour operators, to developing ecotourist destinations, within which an integrated ecotourist product is provided, resulting from the partnerships established with the relevant factors and promoted both through the (eco)tourism development associations set up at local level, and through the central public administrations. Basically, these destinations may be developed on the structure of the natural or national parks and of the biosphere reserves, but ecotourist destinations may also be created in other natural areas in which the traditional way of living has been preserved unchanged. Retezat National Park – Țara Hațegului Geopark National Park, Danube Delta Biosphere Reserve, Piatra Craiului National Park, Maramures Mountains National Park, National Park or Macinului Mountains National Park

are only a few of the possible future ecotourist destinations.

In addition, for the parks in which ecotourism plays a secondary role (for example, Bucegi Natural Park, Domogled – Valea Cernei National Park), it may complete the established types of tourism. Thus, the problem is that of providing these categories of tourists with new possibilities to spend their spare time, increasing the level of using the tourist infrastructure and providing the locals with visible sustainable development alternatives. [4]

## REFERENCES

- [1] Hornoiu Remus Ion Ecotourism – Priority Direction in the Local Communities' Sustainable Development (2009);
- [2] NISTOREANU Puiu, Gabriela TIGU, Delia POPESCU, Mihaela PADUREAN, Adela TALPES, Mădălina TALA, Cristina CONDULESCU (2003), Ecotourism and Rural Tourism, ASE;
- [3] INCDT – The National Institute for Research and Development in Tourism, "The National Strategy for the Development of Ecotourism in Romania, Stage II, The Strategic Plan For The Development Of Ecotourism In, November, 2009;
- [4] [www.greenmarketing.ro/GREEN](http://www.greenmarketing.ro/GREEN) Marketing – The marketing magazine for green products and services.

<sup>4</sup> POS – Sectoral Operational Programme

## DEVELOPMENT OF ECOTOURISM IN BUZAU COUNTY

Matei-Agathon DAN<sup>1</sup>, Petrică ȘTEFAN<sup>2</sup>, Silviu GHEORGHE<sup>3</sup>

<sup>1</sup> Employers Confederation of Industry of Romania CONPIROM, No. 48, Calea Victoriei, sect. 1, 010063, Bucharest, Romania, (+49) 021/3266089, conpirom@yahoo.com

<sup>2</sup> University of Agricultural Sciences and Veterinary Medicine, 59, Marasti, 011464, Bucharest, Romania, +40 021/2242815, 0723554321, stefanmarian2004@yahoo.com.

<sup>3</sup> University of Agricultural Sciences and Veterinary Medicine, 59, Marasti, 011464, Bucharest, Romania, (+49) 021/2242815, (+40) 21 318 25 64/232, 0764-501.690, tulcea@antrec.ro

**Corresponding author:** conpirom@yahoo.com

### Abstract

From a touristic point of view, the Buzau County is situated among the first five counties on a national level. During the past years, various territorial development initiatives have been finalized such as: roads, water supply and sewage systems, Roman castrums, spa resorts, touristic and agro-touristic board and lodging etc, that have increased the number of tourists attracted by the tourist attractions of the county. The hereby theme undertakes to study one of the most beautiful areas in the country which is very little known by tourists in the same time. This is the 'Meledic carst plateau' in the Buzau County. The aim of this study is to calculate the costs needed for improving the Meledic Carst Plateau for developing eco-tourism in the Buzau County. The first part of the study analyzes the present situation in the area, while the next part shows what we would like to improve and finally, the cost calculation of such an environmental initiative, regardless of who is going to substantiate it: non-governmental organization, local authority, private legal entity, etc.

**Keywords :** Environmental initiative, improvement, eco-tourism, carst, plateau.

## INTRODUCTION

The Meledic carst plateau is situated in Mânzălești village, the Buzău county in the Curve Sub-Carpathians, in the upper hollow of the Slănic river (tributary stream of the Buzău river), between the Slănic river (in the south), the Jgheab brook (in the eastern part), the Meledic brook (to the north) and the Salty brook (in the western part). The Meledic plateau is situated 600 m high and it is made up of clays and slates on the brackish treacle of a salt massif.

## MATERIAL AND METHODS

The study aimed to present the actual situation of Buzau county from a tourism point of view based on observation, comparison, analysis and synthesis methods. Ecotourism is presented by means of its characteristics in the area.

## RESULTS AND DISCUSSIONS

### 1. PRESENT SITUATION

The salt caves in Mânzălești form a necklace comprising: the cave in the Meledic plateau (the most important), the caves in the Jgheabului hollow integrating 35 big recesses out of which 26 are situated in the Meledic plateau (Image 1) and 9 in the Jgheabului hollow.

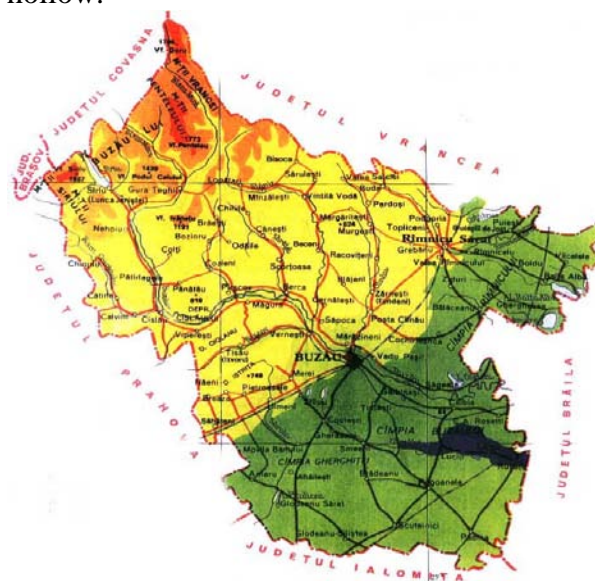


Image 1. Location of the Meledic Carst Plateau

The caves have a large diversity of shapes followed by a fascinating polychromes comprising immaculate white, yellow, pink, red, brown, grey. Stalactites go up to 1.5 m long and 30 cm thick on the bottom, often changing their position from vertical to peaks arranged in broken line (aberrant stalactites) [2].

Stalagmites are short, only a few centimetres high and about 8 cm on the bottom.

The scientific value is complemented by the existence in this area of the turtle and the scorpion in a mild climate area. The slopes of the Meledic plateau have deep canyons of 5-6 m, 0.5 to 3 m wide and slope failures of 2 m. A marvellous place, perfect for those who are looking for relaxation. [2]

## 2. EXISTING OUTER FACILITIES

The carst Meledic area (Image 2) does not comprise underground facilities; therefore all the suggested improvements are exclusively on the ground, which allows tourists to come closer to the tourist attractions and to cover routes and itineraries facilitating the view of unique landscapes in Romania, the salt carst being in the same time a rarity all over the world.



Image 2 – The carst Meledic area

Visiting caves can not be achieved by tourists due to the special, difficult access conditions and in the same time due to the impossibility of ensuring visitors' safety, the relief in the

area housing the caves being periodically affected by the failure of the clay banks that cover the salt deposit.

Presently, the plateau in the Lacul Mare area (Big Lake area), under the property of Mânzălești village local authority, is occupied by the Meledic touristic complex which comprises 5 wooden lodgings, a dry toilet, a mess room with kitchen, a food store, a natural camping area, a stone fireplace, a platform for artistic events with an unfinished building, ground level designed for tiring rooms and platform enclosures.

On the natural slope of the glade in front of the platform, there are several rows of wooden benches for the spectators.

Annually, this is the location of the Slănicului festival that has reached its 39<sup>th</sup> edition, a cultural event that attracts thousands of visitors. [4]

In the northern part of the lake, on a forest hidden plateau, there is the Meledic board and lodging, the only bed and breakfast place in the area. Just between the board and lodging and the glade where there is the touristy complex, there is a marked tourist track stretching to the north and driving you through the forest to three of the most important caves in the area, situated on the bottom of some sinkholes with fallen and insecure banks.

## 3. PROPOSALS FOR IMPROVEMENT AND MODERNIZATION

Proposals sight the improvement and modernization of the tourist complex under local authority's property, as well as making some tourist tracks for visiting the carst plateau.

The following improvement works will be carried out in the touristic complex area:

- The existing 5 wooden lodgings will be de-allocated due to serious ageing, as well as the dry toilet close to the border of the lake;

- The un-finished ground level building behind the shows platform will be consolidated, re-compartmentalized and modernized, turning it into a tourist centre with the following tasks: exhibition area with information desk – tourist information and shop for selling promotional items, maps and tourist guides, souvenirs and

local handicrafts, administrative building and toilets for men and women tourists. The building will have a wooden framing roof and bolter cover, with a traditional, rustic aspect;

-There will be built a covered terrace on wooden frame on the western part of the existing mess room, oriented towards the lake (with a capacity of 30 seats) and toilets for both men and women, customers of the restaurant.

-There will be arranged a camping area in the eastern part of the glade, in the southern part of the visitors' centre, made up 14 wooden lodgings with 2 beds and a covered terrace, a camping platform with 7 lanes with 4 tent places, 4 double fireplaces, a pavilion for toilets and showers for both men and women where there will be a septic tank close by, BIOSYSTEM type;

-There will be a parking for 35 cars in the access area, between the mess room and the camping platform;

-There will be alleyways paved with concrete decorative ecologic tiles leading to all envisaged buildings in order to direct the traffic and to protect the landscape and flower improvements which will fill the areas between buildings.

In order to visit the carst plateau, it was suggested to arrange the marked track towards the sinkhole located to the northern part of the forest (about 500 m) and to make an itinerary on the existing tracks that will be renovated in order to visit the Great Coliseum (1,200 m long), starting from the telecommunication relay located on the highest point of the plateau (650 m high). In the centre of the Mânzălești village and at the entrances of the carst plateau there will be installed information boards with the map of the area, the characteristics of the caves and other tourist attractions in the neighbourhoods.

Also, inside the tourist complex and in the high interest areas of the itineraries there will be installed panels with the detailed description of the surface and underground carst phenomena, accompanied by pictures and explanatory maps. [3]

## CONCLUSIONS

During the past years, the touristic potential of the Buzau County has increased due to territory improvement initiatives in the tourist attractions area. There have been modernized the access ways to the tourist attractions that are unique both in Europe and worldwide, that is: the Muddy volcanoes, the oil mine in Sărata Monteoru, the living fires, as well as those to the wine yard, fruit-growing and spa resorts, monasteries, etc.

The water supply and sewage system has been rehabilitated both in the urban and rural areas. Several voluntary environmental initiatives taken by non-governmental organizations have contributed to the visible decrease of the waste quantity over flown in forests or camping areas, green areas, on roads, in the waters, etc.

Following the territory improvement initiatives analyzed in the hereby study, presently too little known by tourists, this will lead to increasing the visitors number in the Buzau county.

The scenario presented by us has the following advantages:

-*At economic level*, this will lead to the increase of the exploiting level and capitalizing the natural tourist resources;

-*At social level*, this is aiming for improving people's living standard in the areas where tourism is developing;

-*At ecological level*, this is aiming to recycling and avoiding the degradation of the environment where the tourist activity takes place.

Following these aspects, we suggest establishing some priorities in furnishing and re-furnishing this objective for a tourist purposes, the selection criteria being the value of the investment, the amount of the tourist traffic, the importance of the attraction from the tourist resources point of view and the novelty and originality characters of the tourist destination. This way, by applying these criteria to the studied objective, we can come to the conclusion that the carst Meledic plateau represents a non-capitalized area, which is unique on a national level (carst on salt, having the world record for the "the

longest cave in salt”), amazing landscapes, indedited, easily accessible, fairly low investment value, without requiring underground investments. This is situated in an area with a prspective tourist potential, with tourist attractions in the neighbourhoods and resources that can be capitalized through tourism (salt water springs, thermal waters).

[3]

## REFERENCES

[1] Georgescu Emil-Sever (2004), Earthquake zonation of Romania. Risk evaluation laboratory

Earthquakes and actions in the constructions field – INCERC, article: [www.cutremur.net](http://www.cutremur.net);

[2] Teodoreanu Elena, Dacos-Swoboda Mariana, Voiculescu Camelia, Enache L. (1984),

*Bio-climate of the spa resorts in Romania*, Sports printing house –Tourism, Bucharest;

[3] Collectively, The Geography Institute of the Romanian Academy. Research report (2005),

*Natural hazards and quality of the environment in the long-lasting perspective in the Carpathians and the Curve Carpathians*. Science and Scientometry magazine.

[4] Pre-feasibility study regarding the tourist furnishing and re-furnishing of some caves. The National Tourism research and development institute – INCDT Bucharest.

## EVOLUTION OF TOURISM IN S-W OLTENIA REGION

Manea DRĂGHICI<sup>1</sup>, Dragos Ion SMEDESCU<sup>1</sup>

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine, Bucharest, 59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, Fax: +40 21318 28 88, Email: [dmprofesor@hotmail.com](mailto:dmprofesor@hotmail.com) Fax: +40349 401346, Email: [smedescudragos@yahoo.com](mailto:smedescudragos@yahoo.com)

**Corresponding author** : [dmprofesor@hotmail.com](mailto:dmprofesor@hotmail.com)

### Abstract

*This paper is a simple pass through the development of tourism in S-W Oltenia region from 1990 to 2009. Were considered and analyzed: the state of reception capacity in Oltenia region in comparison with the other seven regions, the situation in the reception capacities Oltenia region, comparison between the counties of components, development of accommodation capacity from 1990 to 2009, tourist reception with functions Accommodation in the Oltenia Region 1998 - 2009 and the situation where levels of classification of hotels, from 03/31/2005. In all these cases conclude that S-W Oltenia region in the early '90s, had a capacity of a five rank among the eight regions and 7th place at the facilities (accommodation). In coming years the situation has not changed much, Oltenia was all between the last regions to these indicators. It is remarkable that only after 2003, have diversified forms of tourism and the increased number of accommodation, having been a more intensive development of rural tourism and the tourist and agro tourism in the region in the year 2009 to 50 respectively 70. Some conclusions are also presented the idea of a better exploitation of tourism in the area.*

**Keywords** : S-W Oltenia Region, rural tourism , reception capacity

### INTRODUCTION

The regional strategy plans, tourism is considered a priority development programs taking into account both existing resources and finding new ones, coupled with the necessity of achieving economic and social connections in the region.

We refer to S-W Oltenia region, a region that, due to its geographical position offers multiple opportunities to practice various forms of tourism: Spas, rural, alpine, spelunking, sports, ecumenical, tourism, cultural tourism, fishing, vineyard etc.

S-W Oltenia region, mostly in terms of geographic boundaries correspond to historical Oltenia, as it is also said at the time of Austrian rule, Oltenia of those five counties, the only specification that has disappeared from the map Romanati County and its location has been taken by Olt, which expanded territorially in the right side of river Olt (Photo1).



Photo1: România – S-W Oltenia Region

The five components counties of Dolj, Olt, Valcea, Mehedinți and Gorj, sums up a total area of 29,212 km<sup>2</sup> and a population in the years 2005, 2,306,450 people representing 10.67% of the population with a density below the national average (79.3 to 90.9 inhab/km<sup>2</sup> inhab/km<sup>2</sup>).

The region's population lives in a proportion of 52.5% in rural areas, compared to 43.5% in urban areas (national, rural and urban ratio of 45.1% to 54.9%) The most rural counties are 59.4% Olt, Valcea and Gorj 54.8% 53.1%.



Network of settlements in this region consists of 40 cities, 11 of them being municipalities and 408 communes, totaling 2066 villages. In terms of relief, Oltenia region appears as a well balanced territory, assuming almost all forms of terrain, from mountains and hills in the north (the Carpathians and in the Carpathian region, where forests and grasslands predominate extended) by Southern Plains (planted with grain) with a hydrological network consists mainly of the Danube River and two major rivers, with numerous tributaries, Olt and Jiu, energetic role of ensuring the region mainly in Romania (71.57% of the total hydropower production).

## MATERIAL AND METHODS

Looking on Oltenia region's tourism potential, as materials and methods we use the following indicators of accommodation: 1990 - 2003, by county components, receiving capacity situation in the region of Oltenia, comparison between counties 1990 - 2003; capacity of the Oltenia region compared with other regions of tourists' reception with functions of accommodation in the Oltenia region between 1998 - 2003 and hotels, according to the classification levels. All these indicators have been cited as a source of Romania's Statistical Yearbook 2004. There were used: the accommodation 2004 - 2009 S-W Oltenia region, structures of the functions of accommodation S-W Oltenia, both as a source National Institute of Statistics Dolj and Data Development Plan S-W Oltenia Region (Department Development of Tourism). To determine the evolutionary trend equations were calculated on the type  $Y = a + bt + ct^2$ , where  $t = \text{time}$ .

## RESULTS AND DISCUSSIONS

From discussions on reception capacities in Oltenia region compared to other regions under consideration were two reference periods: 1. 1990, out of the old social system and in 2003, where we see that the 1990 Oltenia region, have an accommodation capacity of 26,376 seats, which ranked 5 in

relation to other regions in the first place, on a considerable distance and at a rate of almost 50% of the total accommodation capacity is Moldova (353 236). Unfortunately, in 2003, S-W Oltenia region, the material contained accommodation only 183 units, representing 5.12% of the national total, a number that was on the penultimate place compared with other regions and, with a total of 15,112 jobs accommodation (5.52% of the national total) Oltenia region occupies the whole place in July, before the Bucharest region, which had 10,025 seats. We mention that in 2002 in the Oltenia region, were registered 58 travel agencies (24 in Dolj, Valcea 15, 7 Olt, 6 in Gorj, Mehedinti 6), there are data from the socio-economic development S-W Oltenia region, conducted by Applied Economics group GEA Bucharest. All these indicators, the reference to tourism, have been continuously declining in a natural way by following the economy of the area. These indicators are: the ability of accommodation, tourists stay, nights, index of capacity utilization in service, have decreased in some cases less than half. Unfortunately Oltenia region is the region with the most significant decrease in accommodation capacity, more than doubled compared with the regions SW, S, V and Bucharest - Ilfov and about 3 times compared with the N - W Region (tab.1). The indicators on the number of overnight stays, S-W Oltenia region is not better, finding somewhere in 6th place in 2003. Speaking of S-W Oltenia region that is a real tourist area, therefore, the development program S-W Oltenia region, including details of land development include: the creation of regional tourism clusters with infrastructure development, operations and delivery capacity, especially in the counties Gorj and Valcea, developing cultural tourism in areas outstanding national heritage (churches and monasteries in Valcea and Olt counties), the development of sport tourism (caving, tourism, cycling, etc.) mountain and hill areas in the counties of Mehedinti, Valcea and Gorj, the rehabilitation of health tourism through the transformation of social tourism .

Table 1. Situation reception capacities in Oltenia region, compared with other regions

Region	Accommodation capacity 1990	Accommodation capacity 2003	Capacity - decrease (%)	Overnights 1990(thousands)	Overnights 2002 (thousands)	Overnights - decrease (%)
NE	24986	17965	-28,09	3824,5	1451	-62,06
SE	162799	130991	-19,53	14115,6	5154	-63,49
S	26900	21729	-19,22	4205,8	1704	-59,48
<b>OLTENIA</b>	<b>26376</b>	<b>15112</b>	<b>-42,70</b>	<b>4045,6</b>	<b>1643</b>	<b>-59,39</b>
V	26006	20713	-20,35	4089,2	2034	-50,25
NV	29102	24320	-16,43	4909,9	2251	-54,15
C	44241	32759	-25,95	6341,5	2431	-61,66
B	12826	10025	-21,83	3019,7	1177	-61,02
<b>România</b>	<b>353236</b>	<b>273614</b>	<b>-22,54</b>	<b>44551,8</b>	<b>17845</b>	<b>-59,95</b>

Mention at this point that social tourism has been tourism, in long periods of time (kept alive) many of the resorts in the county of Valcea, although tourism was poor, those benefiting from the state tourist ticket discounts rest and treatment. It was thus a form of subsidized travel to the present time, is found only at pensioners, in a rather small number. Also in the reference period 1990 to 2003 reported here, in the same situation Statistical Yearbook of Romania and the reception capacities of selected counties in the region of Oltenia. It is noted here, the gap between the five counties receiving both capacity and at nights. Only Valcea with its huge tourism potential and a more basic material placed in the report differs from other counties with the lowest indices both indicators of decay (Table 2).

Tab. 2. Reception capacity situation in Oltenia region, comparison between counties

Territorial unit	Accommodation capacity 1990	Accommodation capacity 2003	Capacity - decrease (%)	Overnights 1990 (thousands)	Overnights 2003 (thousands)	Overnights - decrease (%)
Dolj	1929	1179	38,9	333,1	58	82,6
Gorj	4426	1159	73,8	358,5	84	75,2
Mehedinti	2407	1358	43,6	341,4	117	65,7
Olt	1863	725	61,0	258	36	86,0
Vâlcea	15751	10691	32,16	2754,6	1348	51,0
<b>Region</b>	<b>26376</b>	<b>15112</b>	<b>-42,7</b>	<b>4045,6</b>	<b>1643</b>	<b>59,4</b>

Among the factors that led to the collapse of indicators (privatization, changing the legal status of facilities and land, lack of investment from the state, etc.) we can enumerate the precariousness of access infrastructure to undeveloped areas of interest, lack of utilities or unmodernized the existing technical facilities, lack of qualified personnel and, last but not least, lack of adequate management and tourism marketing programs. We present below the accommodation capacity development for the years 1990 - 2003 S-W Oltenia (Tab. 3).

Tab. 3. Evolution accommodation capacity 1990 - 2003

Year	Accommodation capacity		Arrivals (thousands)	Overnight stays (thousands)	Ratio (%) of the capacity function
	available	in operation			
1990	26373	6790,3	1024,6	4045,6	59,8
1991	22230	5906	793,3	2730	46,2
1992	18766	5167,5	642,4	2369	45,8
1993	18046	4926,3	576	2070	42
1994	17875	4125,3	495,4	1974,9	47,8
1995	17462	4149,8	544,6	2044,1	49,3
1996	17010	4095	506,3	1791,9	43,8
1997	17118	4238,9	433,7	1682,1	39,7
1998	16890	4082,3	374,3	1619	39,7
1999	15363	3758	343,1	1569,8	41,8
2000	15295	3736	327	1591	42,6
2001	15326	3885	338	1745	44,9
2002	14855	3755	350	1691	45
2003	15112	3701	324	1643	44,4

Following graphs represent the table 3.

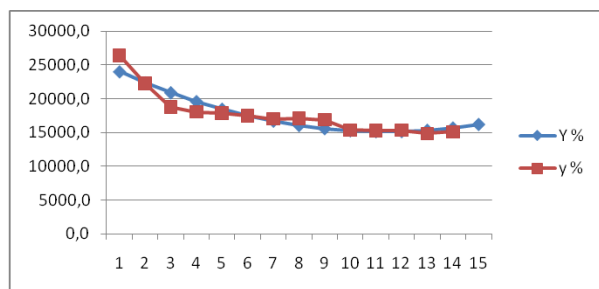


Fig.1 Accommodation capacity available ( $Y=25822,55-1885,27t+82,91t^2$ )

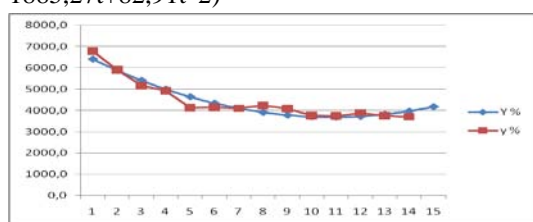


Fig.2 Accommodation capacity in operation ( $Y=6990,64-611,34t+28,21t^2$ )

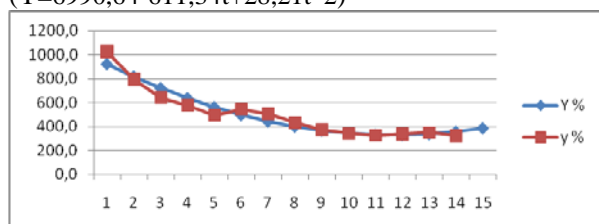


Fig.3 Arrivals (thousands) ( $Y=1039,037-121,271t+5,1819t^2$ )

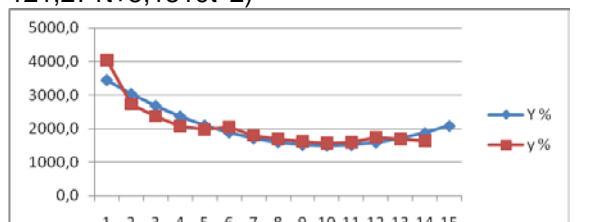


Fig.4 Overnight stays (thousands) ( $Y=3899,607-477,919t+237964t^2$ )

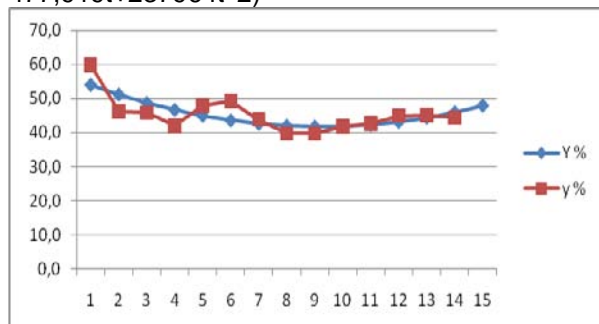


Fig.5 Ratio (%) of the capacity function ( $Y=57,131-3,35827t+0,18238t^2$ )

Based on the development of accommodation capacity, we present the structure of tourists' reception with functions of accommodation in the Oltenia region taking benchmark years 1998, 1999, 2000, 2001, 2002, 2003. What we noticed analyzing data in this table (Table 4):

Tab. 4. Tourist reception facilities with accommodation in the Oltenia region

	1998	1999	2000	2001	2002	2003
<b>Total which:</b>	<b>186</b>	<b>157</b>	<b>162</b>	<b>164</b>	<b>158</b>	<b>183</b>
Hotels and motels	71	66	67	63	64	72
Tourist inns	-	2	3	-	-	-
Tourist chalets	8	7	6	7	6	5
Tourist villas and bungalows	75	52	48	51	41	50
School camps	12	12	13	12	12	12
Tourist boarding houses	7	8	12	19	21	27
Camping sites	13	10	12	10	10	10
Hosts	-	-	1	1		1

since 1998, there is a certain balance regarding the situation of tourist reception (all in 1998, 186, all in 2003, 183) of which 71 hotels and motels in 1998, 72 in the 2003 disappearance of tourist inns: 2 1999, 3 in 2000 and 0 in 2001, increasing instead of tourist boarding houses, from 7 in 1998 to 12 in 2000 and 27 in 2003, maintaining a constant number of school camps for 12 students in 1998 and 1999, 13 in 2000 and 12 in 2001, 2002, 2003. Is interpretable position tourist villas and bungalows, where in 1998 had a total of 75 such capacities in 2002 have decreased to 41 and in 2003 an increase to 50 units. Here is a complaint or possible downgrading of the accommodation in question. As a conclusion, this structure is noted, by far, hotels and motels that have the largest share in terms of accommodation capacity S-W Oltenia region, a situation that is reflected nationally. And we're in this chapter, we should note that in the Oltenia

region until 31/03/2005 (Source Ministry of Transport, Constructions and Tourism. National Tourism Authority) there are no five-star hotels just 2 4 stars, both in Dolj (Table 5).

Tab. 5. Hotels by levels of classification certificates valid on 03/31/2005

County	Classification Level:				
	★★★★★	★★★★	★★★	★★	★
DOLJ	0	2	5	4	0
GORJ	0	0	2	2	0
MEHEDI NȚI	0	0	2	3	0
OLT	0	0	0	6	0
VÂLCEA	0	0	7	16	3
<b>OLTENIA</b>	<b>0</b>	<b>2</b>	<b>16</b>	<b>31</b>	<b>3</b>

We said in early material, that there are countless forms of tourism and I listed some of them. Of the 2003 analyzed by the structure reception capacities were not available agro-touristic boarding or hostels, tourist accommodation structures newest entrants in the Romanian tourism market. Agro-touristic boarding played and plays an important role since recovered by accommodation and food services, rural and marginal areas of cities. Also because of them have been developed some forms of turism: cultural tourism, rural tourism, ecotourism, agriturism, ecumenical, wine, fish, many having the local area. S-W Oltenia region is, in terms of number of monasteries and churches on the 2nd place after Moldova, also in the Valcea region, the country ranks number 3 on the functional capacity of accommodation and place 2 to number of nights. It should be noted that the counties of Oltenia have a natural virgin environment, a rural area of wild beauty that hasn't felt yet to much the human touch. In 2004 only 26.57% of the existing accommodation capacity of Valcea County

was working with an occupation rate of 44.5%, higher rate, however, the national average. Tab. 6. Tourist reception with functions of tourist accommodation, 31 July 2009.

Table 6. Number of units by Category in South West Oltenia Development Region

Development Region	Number of units
<b>2009</b>	
<b>SOUTH - WEST OLTENIA</b>	
<b>Total</b>	<b>299</b>
<b>Hotels and motels</b>	92
<b>Tourist chalets</b>	9
<b>Camping sites</b>	9
<b>Tourist villas</b>	47
<b>School and pre-school camps</b>	3
<b>Tourist boarding houses</b>	56
<b>Agro-tourist boarding houses</b>	70
<b>Tourist halting places</b>	3
<b>Hostels</b>	10

Although the capacity of accommodation, both existing and operational as increased from 2004 to 2009, the latest year data in the table below, we see variations in the index of arrivals and overnight stays at even decreases. It is curious, in a sense this phenomenon, given that the years 2006, 2007, 2008 and 2009 were years where the economy and prices stabilized to some extent. Here for shelters and composition with functions of tourist accommodation and accommodation capacity, 31 July 2009. (Table 6.7).

Tab. 7. Tourist accommodation capacity and activity, S-W Oltenia region.

Development Region Years	Accommodation capacity		Arrivals (thousands)	Nights spent (thousands)	Capacity utilization ratios of net operating (%)
	Available (places)	In function (thousands persons-days)			
2004	13936	3703	361	1648	44,5
2005	14672	3950	334	1602	40,6
2006	14816	4226	371	1641	38,8
2007	15219	4107	403	1674	40,7
2008	14973	4197	429	1730	41,2
2009	16349	4233	366	1442	34,1

Observing the accommodation capacity, we see that they have increased almost every year, but indications of net capacity in service use were lower. Also we may note the increasing tourist boarding houses from 27 in 2003 to 70 in 2009 and tourist boarding houses from 27 in 2003 to 56 in 2009. But dramatically decreases the number of school and pre-school camps from 12 in 2003 to 3 in 2009.

## **CONCLUSIONS**

1. Regiunea S-W Oltenia is a region with a strong and diversified tourism potential. 2. It has many attractions (historical, religious, folk art, architecture, etc). 3. Many of these objectives are in rural areas, by exception, enabling rural and agro-tourism development that can lead to a development of traditional crafts: weaving, pottery, furriers, making the crafts. 4. Accommodation capacity in recent years is constantly increasing. 5. Improving infrastructure through national and regional road networks. 6. Qualification of personnel from all the tourist reception and accommodation units. 7. An improvement in the management of reception and accommodation of these capacities. 8. Diversified forms of marketing in promoting and supporting tourism phenomenon.

## **ACKNOWLEDGEMENTS**

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## **REFERENCES**

- [1] Statistical Yearbook of Romania 2004
- [2] S-W Oltenia Regional Plan for Development, 2005, chapter. Tourism.
- [3] National Institute of Statistics Dolj, 2009, Tourism

## THE REORGANIZATION OF THE AGRICULTURAL CONSULTANCY SERVICE IN ROMANIA

**Alina DRAGOMIR**

University of Agricultural Sciences and Veterinary Medicine, Bucharest  
59 Marasti, sector 1, 011464, Bucharest, Romania, dag\_alina@yahoo.com

*Corresponding author:* dag\_alina@yahoo.com

### **Abstract**

*The purpose of this paper is to analyze the manner in which the agricultural consultancy service operates in Romania. The analyzed material is represented by the legislation in force and the manner of operation of the agricultural consultancy services. The agricultural consultancy services represent a vital element in the field of agricultural information and technological transfer, providing flows of information which can contribute to the improvement of the living conditions of the population in the rural area. The consultancy also plays an important role in the transfer of the results of the research by adapting them to the local agricultural ecology conditions and the farmers' resources. The reorganization of the agricultural consultancy service occurred following the intention to make it closer to the needs of the farmers and the inclusion thereof in the decisional process. The agricultural chambers represent the deliberative body in the promotion of the Romanian and European agricultural policies.*

**Keywords:** agriculture, agricultural chambers, consultancy, Romania.

### **INTRODUCTION**

The deep economic and social transformations, which occurred in our country after 1989 are manifested in agriculture by changes regarding the structure of the forms of ownership, the arising of new types of agricultural exploitations and the development of the specific economic market relations [1]. In this respect, the Ministry of Agriculture decided to organize an activity of agricultural assistance, consultancy and information in a separate structure – the National Agricultural Consultancy Agency [1]. Wanting to be closer to the farmers' needs and to answer as promptly as possible to their requests in 2010, the reorganization of the agricultural consultancy service was decided.

### **MATERIAL AND METHODS**

In order to characterize the situation of the agricultural consultancy, the structure of organization of the Agricultural Chambers and the manner in which they can contribute to the improvement of the consultancy service in our country were monitored. For the performance of such characterization, the legislation in force, the results obtained in the

period prior to the reorganization as well as the new elements which the Agricultural Chambers bring for making more efficient the collaboration with the farmers were analyzed.

### **RESULTS AND DISCUSSIONS**

The major objective of agricultural consultancy is to develop a modern and profitable agriculture, aligned to the EU standards. The consultancy services have an important role due to the new challenges agriculture is facing: changes in global agricultural and food system, including the development of supermarkets and the increasing importance of the standards and labels; the increase of the degree of rural engagement in fields other than agriculture and the food sector; limitations imposed by the health problems affecting rural life; the deterioration of the base of natural resources and the increasing need to cope with the climate changes. The National Agricultural Consultancy Agency has responded to the farmers' requests by organizing different actions (training and skills improvement courses, technical assistance course, etc.) having as goal the dissemination and updating of the technical, economic and legislative

information, in order to improve the competitiveness of commercial or semi-subsistence farms. In 2008, the National Agricultural Consultancy Agency organized 551 qualification courses for 16,173 trainees; and in 2009 it organized 3,312 qualification, training, skills improvement and train the trainer courses, for 84,052 participants [2]. At the end of 2010 it was decided to reorganize the agricultural consultancy service by approving the law no. 283, law which set out the manner of set up, organization and operation of the Agricultural Chambers. They have a consultative role, representing the main dialogue partner of the central public authority with powers in the field of agriculture and other related fields, as well as of other authorities and institutions of the central and local public administration, in the areas of competence [3]. The set up of the Agricultural Chambers aims to promote a sustainable, modern and competitive agriculture through the development of agricultural undertakings, family farms and of the good practices of this field, as well as through the maximum use of the local agricultural potential. This initiative responds to the objective of decentralization of the public administration through the integration of the local, agricultural and forestry specificity in the process of development of own operation regulations. The Government, by means of the Ministry of Agriculture and Rural development, the local authorities by means of the of the County Councils and Local Councils, the associations of producers, farmers and any other associations set up for the promotion of the common interests of farmers (trade unions, federations, professional organizations, organizations of the civil society) and, optionally, the financing bodies (banks, mutual funds, rural credit etc.) will cooperate for the set up and operation of the Agricultural Chambers.

The set up of the Agricultural Chambers has as main objectives:

- the promotion of the economic and social interests of the population of the rural area engaged in agricultural activities;

- the development of family agriculture by the modernization of the family farms and the development of the agricultural industry;

- the increase of the contribution of the agricultural sector to the gross domestic product;

- the decrease of the disparities between the urban and rural environment;

- environment protection and the sustainable management of the natural resources;

- the sustainable and balanced development of the territory.

The following principles lie at the basis of the set up of the Agricultural Chambers:

- The decentralization principle, which entails the set up of a national network for the facilitation of the exchanges and cooperation between the members. The Agricultural Chambers shall be set up as a system of representation of their members before the public and / or private partners.

- The autonomy principle, which guarantees the right of the Agricultural Chambers to establish development objectives, action programs and the manner of management of their own resources, without external interference.

- The principle of incompatibility between the representation mission and the commercial activities: the functions of the Agricultural Chambers must not lead, under any circumstances, to the performance of commercial transactions with the farmers who are members.

- The professionalization principle, which means that only farmers, agricultural producers or similar persons - breeders, forest owners, fishermen, etc. - can be represented by the Agricultural Chambers.

- The principle of budgetary constraint, which prohibits the use of the special transfers or of the amounts distributed for financing the Agricultural Chambers by the authorities of the central and local public administration for other purposes;

- The principle of ensuring the necessary resources, which entails that the institutions involved in the set up of the Agricultural

Chambers must provide human, financial and material resources necessary for the proper operation thereof;

- The partnership principle can be found in all levels of organization of the Agricultural Chambers and promotes the internal, external and international cooperation with similar institutions and organizations, public-private institutions in compliance with the partnership obligations.

The Agricultural Chamber is structured on the following levels: national, regional, county and local, as follows:

- The National Agricultural Chamber, with its headquarters in Bucharest, is an executive body under the methodological coordination of MARD (the Ministry of Agriculture and Rural Development).

- The Regional Agricultural Chamber, regional structure coordinated by the National Agricultural Chamber.

- The County Agricultural Chamber, with offices in each of the 42 counties.

- The Local Agricultural Chamber, autonomous local structure coordinated by the County Agricultural Chamber.

The Agricultural Chambers include:

Representative management bodies – The Management Board of the Chamber which establishes the own objectives, programs and action plans, the manner of use of the distributed resources (human, material and financial).

Technical and operational execution bodies, representing the technical-administrative structure of the Agricultural Chambers – the Technical Service.

The National Agricultural Chamber has the following powers:

- represents the interests of the National Agricultural Chamber and of the zonal and county agricultural chambers with before all the institutions of the state and any other national public or private, European or international bodies;

- provides legal assistance to those it represents,

- supports the organization and consolidation, at national level, of the agriculture and forestry associations, of the cooperatives, groups of producers and other as such;

- organizes seminars, symposiums, fairs, exhibits and related scientific manifestations in the country and abroad;

- promotes the Romanian products and services of the field, in the country and abroad;

- draws up local, zonal, regional and national plans and strategies;

- concludes domestic and international agreements, protocols and partnerships;

- collaborates with the research institutions of the field in order to increase the competitiveness of the Romanian agriculture and applied research;

- contributes to the draw up, promotion and implementation of the agricultural or related policies as partner of the Ministry of Agriculture and Rural Development and of the other governmental institutions;

- organizes professional skills improvement activities for the personnel of the zonal and county agricultural chambers;

- supports and ensures the activity of innovation in the field of technical assistance granted to the farmers and identifies new sources for financing the zonal and county agricultural chambers.

The financing of the Agricultural Chambers is performed from: contributions of the farmers who are members of the agricultural chambers; the interests and dividends resulting from the investment of the available amounts of money, the dividends of the set up trading companies, incomes obtained from direct economic activities; donations, sponsorships; resources obtained from the state budget, by means of the budget of the Ministry of Agriculture and Rural Development.

## CONCLUSIONS

1. The National Agency for Agricultural Consultancy, by means of the County Offices and the Local Consultancy centers have



carried out a large number of diversified actions dedicated to the increase of the level of knowledge of the agricultural producers in order for them to be capable to take correct decisions so as to increase the production performances and the competitiveness on the market, by means of the efficiency and quality of the products.

2. The set up of the Agricultural Chambers aims to create a partnership between farmers and the Government, in order to promote the interests of the farmers.

3. The Agricultural Chambers were set up under the Agencies Reorganization Law, with the intention for these chambers to be the agricultural farmers', through their active presence in the rural area.

4. The Agricultural Chambers represent the deliberative body in the promotion of the Romanian and European agricultural policies as regards agriculture.

5. The Agricultural Chambers represent the interests of the agricultural producers, which they promote before the governmental institutions and various economic operators.

6. The agricultural consultancy is a component of the Agricultural Chambers, contributing to the improvement of the level of knowledge and the performance of the objectives of the activities of the agricultural producers.

## **ACKNOWLEDGEMENTS**

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## **REFERENCES**

- [1] Sin Gh., 1998, Asistenta si Consultanta Agricola, Ed. Agris- Redactia Revistelor agricole, Bucuresti, pag.1, 271,
- [2] xxx- Raportul de activitate al Agentiei Nationale de Consultanta Agricola pe anul 2008 si 2009,
- [3] xxx- Legea nr. 283/2010 privind camerele pentru agricultură, silvicultură și dezvoltare rurală.

# THE CONTRIBUTION OF THE AGRICULTURAL CONSULTANCY IN THE EDUCATIONAL TRAINING OF ADULTS OF THE ROMANIAN RURAL ENVIRONMENT

**Alina DRAGOMIR**

University of Agricultural Sciences and Veterinary Medicine, Bucharest  
59 Marasti, sector 1, 011464, Bucharest, Romania, dag\_alina@yahoo.com

**Corresponding author:** dag\_alina@yahoo.com

## **Abstract**

*The purpose of this paper is to highlight the contribution of the agricultural consultancy services to the improvement of the educational level of the adults of rural areas. For this purpose we analyzed the statistical data published by the state institutions which carry out activities in this field. In Romania, the professional training of adults is a national priority. The Romanian rural area has a high agricultural potential, large land surfaces and multiple diversification opportunities. The population carrying out agricultural activities has different degrees of training and more often than not does not have access to information related to the progress in this field. The agricultural consultancy contributes to the training and improvement of the professional skills of the persons carrying on activities in the agricultural field by means of the various performed actions.*

**Keywords:** agricultural consultancy services, rural area, education, Romania.

## **INTRODUCTION**

Romania's land is mainly agricultural land, the rural population representing 44.9% of the total population. The professional training and development systems have been fundamentally influenced by the great changes in the society, generated by the information revolution and the technical innovation, but also the demographic dynamics and the effects of the globalization of the economy upon the labor market. The development of the information and communication technologies, the expansion of the technical innovations in all fields, have generated new demands regarding knowledge and forced people to switch to new jobs and professions due to the structural and occupational changes occurring on the labor market [2]. The professional training for adults from rural area is for: initiation, qualification, training, specialization, and obtaining an additional qualification or requalification. The farmers use very different sources to obtain knowledge and information they need for managing their farms [1]. The National Agricultural Consultancy Agency, by means of the performed activities, met these demands.

## **MATERIAL AND METHODS**

In order to highlight the contribution of the agricultural consultancy service upon the educational training of the population of the rural area we took into account the annual reports for 2008 and 2009 of the National Agricultural Consultancy Agency.

## **RESULTS AND DISCUSSIONS**

For Romania, the rural area may represent the engine of the economic development. 60.3% of rural population has agricultural activities, which places Romania above the average of 5.9% in the EU-27 countries. The professional training has become, in the context created after 1990, a fundamental component of adult education.

People are different one from another, the differences consisting in the knowledge and skills they have, as well as the match between what they say and what they do. For adults, learning or completing accumulation of knowledge is not a problem, but is a problem the reorganization, the restructuring or the unlearn. In the learning process, the adult

motivation is more complex than in school. The adult has already well established the mental processes and they can be manifested in their professional activity. Major influences in learning have the affection and the social issues.

The professional training helps to:

- training, accountability and personal development of adult,
- development and exploitation of individual capacities,
- development communication capacity, allowing research, analysis and diversification of opportunities.

Also, the professional training and the continuous improvement of the knowledge represents an important step in the achievement of the measures established by the Romanian Government in the National Rural Development Program 2007-2013. Having as major objective the development of a modern and profitable agriculture, aligned to the EU standards, the National Agricultural Consultancy Agency (ANCA) paid special attention to the adults' continuous professional training activities in the following fields: agriculture, forestry, fish farming, the processing of agricultural products and rural development.

In 2008, ANCA organized 3,098 qualifications, training skills improvement and train the trainer courses for 87,598 people, and in 2009 3,312 courses were organized for 84,052 participants.

The impact of the qualification courses organized in 2009 upon the trainees is highlighted in the following situations: European funds accessing (Measures 121, 112 and 141), agricultural undertakings set up and modernization, the registration in an agricultural association and the occupation of a job (Fig. 1).

The consultants at central, county and local level have permanently gotten involved in the granting of specialized consultancy directly to the farmers, mainly the ones of small and middle-sized family farms, including specialized technical and economic and technologic services. Moreover, individual consultancy was granted to the interested persons at the central, county and local

offices, by telephone, e-mail and written correspondence.

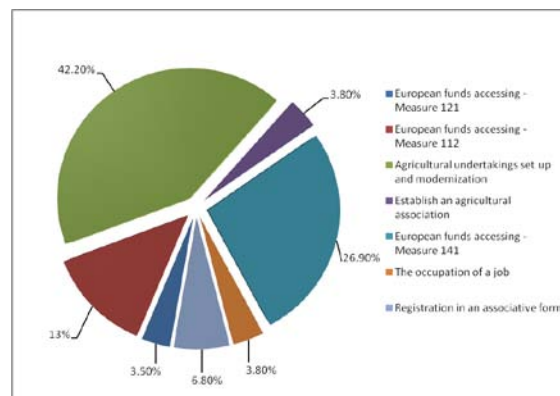


Fig.1. The impact of the qualification courses organized in 2009

Generally, the requests for advice and expert technical assistance aimed at specific areas of agro-industry: the correct application of production technology, identification, access and use of inputs, the correct management of production processes, marketing of products, activities in accordance with specific legislation, government grants and facilities, EU regulations, land fund, agricultural life annuity, milk quota, etc.

It was noticed that the technical assistance granted to the farmers varies according to the size of the undertaking and the performed business. The structure of the undertakings, according to their size, is as follows:

- for large crops, 79% of the farmers have small undertakings, 18% have medium sized ones and only 3% have large ones.
- for vegetable growing, 90% are small undertakings, 9% are medium sized ones and 1% are large ones;
- for fruit growing, 92% are small undertakings, 6% are medium sized ones and 2% are large ones;
- for vine growing, 82% are small undertakings, 15% are medium sized ones and 3% are large ones;
- for animal husbandry, 84% are small undertakings, 14% are medium sized ones and 2% are large ones.

In 2008 and 2009, 2,315 actions were carried out, with 47,578 participants, in the following fields: large crops (fertilization, weed killing, determination of the state of vegetation,

adjustment of the agricultural machines etc); vegetable growing (the production of and care for seedlings, phytosanitary treatments etc); fruit growing (forming, fruit bearing and regeneration cutting works for fruit trees); vine growing (forming, fruit bearing cutting works for the vineyards); animal husbandry (animals and birds feeding).

The consultants from the design teams at central and county level were involved in providing consultancy both for accessing the **European Agricultural Fund for Rural Development** (EAFRD) to the potential beneficiaries and for their implementation. In the sessions of March - November 2008 a total number of 220 projects were filed, amounting to €30,695,053, a total of 74 projects was selected, with a total value of €9,166,516. In the submission sessions of 2009 for Measure 121 – Modernization of Agricultural Holdings a total number of 242 projects were drafted and submitted with a value of EUR 31,909,738 and 75 projects were selected with a total value of EUR 9,423,588. For Measure 112 - Setting up of young farmers, 671 projects were drafted and submitted, and for Measure 141 3792 projects were drafted and submitted.

In 2009, 4,695 potential beneficiaries who received information regarding the accessing EAFRD, most of them were being interested in accessing Measure 141 – Support of Semi-Subsistence Agricultural Farms.

Among the actions of popularization and technical assistance destined to the producers we have:

- demonstrative batches and practical demonstrations;
- fairs, exhibits, contests, festivals;
- seminars, symposiums, debates, meetings, round table discussions;
- visits and exchanges of experience in the country and abroad;
- the creation of audio-visual materials (cassettes, photographs, slides);
- radio –TV shows at national and local level.

At the request of farmers various types of problems were approached, such as: agricultural undertakings management; incomes and expenses budgets, with emphasis on the decrease of the production costs; the

price of agricultural products; the marketing and quality of the agricultural food products; facilities granted to the agricultural producers by the Ministry of Agriculture and Rural Development (M.A.D.R.); notifications regarding the environmental, hygiene and animal health regulations, the main production sectors (milk, meat, vegetables, fruit, wine), the obtaining of quotas; agricultural support programs with external funding (EU, the World Bank etc.); environmental protection and the Code of Good Agricultural Practice; organic farming; sustainable agriculture; the role of the agricultural consultant; other specialized topics. Discussions may help producers become aware of how the manner in which their opinion influences the decision they take.

In addition to the public institutions which offers consultancy in Romania there are other companies which produce seeds and inputs which organize field days in which farmers may participate and analyze the crops in vegetation, in order to see the advantages or disadvantages of using the respective products, having the opportunity to share ideas with other participants in meeting. All these actions are aimed at consolidating the strengths of the rural area and diminishing its weaknesses. It is necessary to extend the professional training activities, the activities of information and dissemination of knowledge to all adults who are involved in fields related to the rural economy.

## CONCLUSIONS

1. Agricultural consultancy is a factor with an important contribution in the increase of production and labor efficiency in agriculture.
2. The agricultural consultancy services contribute to the educational training of the adults of the rural area by means of a series of actions, such as: qualification and skills improvement courses, the popularization of high-performance agricultural practices, the dissemination of the Romanian legislative provisions etc.

3. The transmitted information must be presented in a manner which responds to the needs of the person who will learn it, to his/her expectations and previous experience.

4. It is necessary to permanently analyze and adapt the approached topics according to the requests of the farmers and to the conditions specific to the Romanian agriculture in order to continuously improve the consultancy services.

## **ACKNOWLEDGEMENTS**

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## **REFERENCES**

[1] Sin Gh., 1998, Asistenta si Consultanta Agricola, Ed. Agris- Redactia Revistelor agricole, Bucuresti, pag.1; 271,

[2] URSU A., Negrea O., Toma.A.D. , 2010, Un nou sistem de formare profesionala a adultilor pentru activitatii din mediul rural, pag. 9

[3] xxx- Raportul de activitate al Agentiei Nationale de Consultanta Agricola pe anul 2008 si 2009.

## AGRICULTURE AND RURAL DEVELOPMENT IN VISION EUROPEAN COURT OF AUDITORS

**Sabina FUNAR , Claudia IONESCU**

Romanian Court of Accounts

22-24, Lev Tolstoi Street, 71289, Bucarest, Romania Phone: +40 0213078861,

Fax: + 0213078878, E-mail : [sfunar@yahoo.ca](mailto:sfunar@yahoo.ca)

**Corresponding author:** sfunar @yahoo.ca

### **Abstract**

*This paper presents the field of agricultural and rural development policies, assessing the scope and audit approach for the funds allocated for this purpose. After presenting the effectiveness of the systems regarding the regularity of operations, the procedures regarding the correctness of payments and the databases quality are exposed. References are made also, to control cross-compliance. Based on its audit activities, the Court of Auditors concluded that payments for the year ended 31 December 2009 for group policies Agriculture and natural resources are affected by a significant level of error, and supervisory and control systems for agriculture and natural resources are generally only partially effective in ensuring the regularity of payments. Regarding IACS, the Court concluded that significant improvements are needed, especially for three of the eight agencies interviewed. Court recommended remedy of the identified deficiencies in the systems.*

**Keywords:** agricultural policy, rural development, control of cross-compliance, audit of rural development

### **INTRODUCTION**

In 2009, for the farming and natural resources policies group have made total payments of 56.683 million euros, have been made of which: Agriculture and Rural Development EUR 55.209 million (97.40%); Environment 356 million euros (0.63 %) for Fisheries and Maritime Affairs 592 million euros (1.04%), Health and Consumer Protection 526 million euros (0.93%).

Intended destination for Agriculture and Rural Development payments was as follows: Direct Aid EUR 39.114 million (70.85%) Rural Development EUR 8.738 million (15.83%) Investment in agricultural markets EUR 7.006 million (12.69%); Measures the pre-euro 254 million (0.46%) and administrative expenses EUR 97 million (0.17%).

### **EU BUDGET**

In accordance with the Treaty on the European Union, the responsibility for the implementation of the European Union budget is delegated to the European Commission. With regard to agriculture and rural development, all spending is carried out under shared management, which implementation

tasks are delegated to Member States. According to the Treaty, common agricultural policy objectives are: *increasing agricultural productivity to ensure a fair standard of living for farmers, stabilize markets, guarantee regular supplies and ensuring that supplies reach consumers at reasonable prices.*

European Union finance budget expenditure are accomplished under the common agricultural policy through two funds:

- *European Agricultural Guarantee Fund (EAGF)* to complete financing of direct aid granted by EU and market intervention measures.
- *European Agricultural Fund for Rural Development (EAFRD)* for financing at different levels of rural development programs.

**European Agricultural Guarantee Fund (EAGF).** The main measures are financed through EAGF:

a. The direct aid "Single Payment Scheme (SPS), of which benefits farmers who have obtained rights to payment, calculated by the national authorities in accordance with the models set out in EU legislation, namely the historical model, regional model, hybrid model and dynamic model. Each of these

rights, for eligible surfaces (hectares) the farmer said, gives rise to a payment SPS at least until 2013. The SPS, in 2009, was worth spending EUR 28.806 million.

b. The system of direct aid, "Single Area Payment Scheme (SAPS), provides for the payment of uniform amounts per hectare of eligible land. Currently, the SAPS is applied in 10 new Member States, including Romania, representing expenses amounting to EUR 3.723 million.

c. Other direct aid schemes (coupled payments), designed in order to maintain production in areas where, in their absence, this is likely to be abandoned. The amounts involved were EUR 6.585 million.

d. Investments consist of intervention in agricultural markets, storage and export refunds and other measures, such as specific support for programs in wine, fruits and vegetables and food programs, a total of 3.988 million euros and Sugar Restructuring Fund, of 3.018 million euros.

**European Agricultural Fund for Rural Development (EAFRD)** co-finance rural development expenditure, such as agri-environment schemes, compensatory amounts granted for agricultural activities in disadvantaged areas, investment in agricultural holdings and infrastructure in rural areas, amounting to EUR 8.992 million.

In 2009, additional funds were provided under the rural development funding priorities such as broadband internet infrastructure, climate change, renewable energies, water management, biodiversity and measures to accompany the restructuring of the dairy sector. However, in 2009 there has been no expenditure under this measure. In all systems of aid directly through EAGF and certain support schemes by the EAFRD, recipients of the EU aid must meet certain requirements of cross-compliance, relating to environmental protection, public health, animal and plant animal welfare and maintaining land in good agricultural and environmental condition (GAEC). EU legislation provides that any failure to meet these requirements apply to a reduction in the total amount of 1% -5% or exclusion from direct payments as a result of

demands placed in the calendar year of the finding.

Only farmers are eligible for area aid granted by the European Union. The farmer means a person who exercises an agricultural activity. If the applicant fails to perform any agricultural activity, maintaining land in good agricultural and environmental conditions is the minimum agricultural activity required the applicant to be eligible for aid.

EAGF and EAFRD expenditure is made through payment of approximately 80 national or regional agencies. These agencies, in advance, verify, either directly or through delegated bodies, applications for aid eligibility. Then they approve the payments to the beneficiary. Agency accounts payable and payments made by these bodies are examined by independent audit reports prepared by the Commission in February next year. In 2009, the EAFRD payments represented only interim payments. At the end of 2009 budget appropriations in the amount of 1650 million, were canceled a reduction in expenditure conducted by the Member States, due to the difficulties with providing national and co-financing, when Romania and Bulgaria, the lack of experience as regards the implementation of rural development programs.

#### **INTEGRATED ADMINISTRATION AND CONTROL SYSTEM (IACS)**

The general approach of the European Court of Auditors audit tested a sample of 241 payments. In 2009, of the 241 transactions tested, 66 were affected by errors, of which 42 operations were affected by errors in particular concerning eligibility and quantifiable accuracy. Within EAGF operations, of the 148 selected, 35 were affected by errors. As regards the expenditure on rural development operations of the 80 selected, 25 were affected by errors. Most of the errors relate to measurable significant differences in terms of plot remeasurement made by the European Court of Auditors.

The main control system is designed to ensure regularity of the Integrated Administration and Control System (IACS), which consists of existing databases in each Member State, relating to: agricultural holdings, aid applications, agricultural plots, where payments are still related to the number of animals, from a database of animals and a record of payment entitlements, in those Member States that implement SPS.

The system provides several controls for eligibility: administrative check of all claims, cross checks with databases in order to avoid declaring the same ground twice / of the same animals and a minimum rate of 5% for inspections to be carried the farm by paying agencies.

IACS covers SPS, SAPS and all area aid schemes and bonus schemes for animals.

### **CHECKS CARRIED OUT DURING THE AUDIT BY THE EUROPEAN COURT OF AUDITORS**

The Court has evaluated eight systems IACS/EAGF eight specific control systems and checked EAFRD following elements:

- administrative controls and procedures designed to ensure the accuracy of payments, including the quality of databases;
- control systems based on spot checks;
- systems to ensure implementation and control cross.

The Court believes that IACS is generally an effective control system for limiting the risk of error or irregular expenditure, provided it is properly applied. Administrative controls must be performed for all requests for support and all requests for payment and must include all items for which control is possible and necessary administrative means. Administrative controls should include cross-checks with data recorded in the IACS database.

The Court's audit examined whether the databases were complete and reliable, and the extent to which controls enabling the identification of anomalies and apply corrective actions.

Member States should conduct annual spot checks to cover, for most of the aid schemes, at least 5% of all beneficiaries.

The Court's audit focused on the degree to which risk analysis procedures to allow the selection of beneficiaries of such controls, quality controls and the adequacy of corrections. Following the Court's audit revealed deficiencies in specific spot checks. The following table presents the results of the examination system for the group of agricultural and natural resources policy.

### **THE MAIN FINDINGS OF THE AUDIT**

In the EAFRD, the Court found deficiencies in the accuracy and completeness of inspection reports (in Germany and Romania) and overall assessment of monitoring results (in Bulgaria). During site visits, the Court found violations of the cross compliance requirements for approximately 5% of payments subject to obligations in this area.

Regarding recovery of old debts: a rate of 50% of any undue payment which Member States have not recovered from the beneficiaries in a period of four years or eight years if legal proceedings will be borne automatically from the national budget.

Improper payments resulting from administrative errors committed by the national authorities are excluded from EU funding. Member States are obliged to pursue recovery.

In 2009, the amounts recovered for the period 2000-2004 were supported by Member States 31.4 million euros and 20.1 million euros from EU budget. Aid paid by the Member States are then reimbursed by the Commission the appropriate amounts. Final Acceptance of expenditure shall be by a two-stage procedure, verification and validation of accounts, called closing the accounts. On 30 April 2010, the Commission adopted three decisions validation (closing) costs incurred by financial EAGF EAFRD and TRDI (temporary tool for rural development) and validated with some exceptions, all accounts of the paying agencies. These decisions are based primarily



on the certificates provided by independent auditors.

The Court's audit did not detect incorrectly validated expenditure by the committee of financial decisions validation. In the last three years, instead the court found shortcomings in the reliability of the accounts of borrowers. For 2009, the commission has initiated financial corrections on the 13 agencies from 10 member states to pay for \$ 14.8 million, representing 1.43% of the 1,037,000 euro had recovered by year-end 2009.

Results of the inspection agencies shall be communicated by measuring the regularity of payment and payment applications submitted by farmers. Certification bodies are required to formulate an opinion on the quality of the premises. These certification bodies are supposed to verify and validate the control statistics of Member States. The annual activity report for 2009 states that having quality certification bodies on the premises was, in approximately 90% of cases positive for various populations, and the organisms opinion certification was positive for 70% of the population and only 54% EAGF of population EAFRD.

The Court observes that for a certain number of paying agencies, certification bodies have not been able to confirm the reliability of statistics control, or because the reports were incomplete, either because they were not available.

In the annual activity report, the Director General for Agriculture, referring to the results of inspections carried out by the Member States concluded that the residual error index for direct aids and market interventions for rural development measures is below 2%. The annual Report contains a reserve on the IACS expenditure in Bulgaria and Romania.

## CONCLUSIONS

Based on its audit activities, the Court of Auditors concluded that payments for the year ended 31 December 2009 for group policies Agriculture and natural resources are affected by a significant level of error, and supervisory and control systems for agriculture and

natural resources are generally only partially effective in ensuring the regularity of payments.

Regarding IACS, the Court concluded that significant improvements are needed, especially for three of the eight agencies interviewed. Court recommended remedy of the identified deficiencies in the systems.

Referring to shortcomings in the SPS and SAPS there are needed the following measures:

- remedy deficiencies in the systems that lead to errors on non-eligible land, over lands or inaccuracies in respect of payment entitlements, in particular by improving the reliability and completeness of the data recorded in SIPA, referring to the most recent ortho-photos;
- ensuring that all IACS databases provide a reliable and complete audit trail for all changes;
- clarify and ensure better compliance, so that direct aid from the European Union are not paid to the applicants who have not used the land for agricultural activities or have not maintained it in good agricultural and environmental conditions;
- the establishment at the EU level, of the minimum annual requirements in terms of maintenance for grazing areas to be eligible to obtain direct assistance from the European Union.

The Court considers, that further efforts in rural development are necessary to continue the process of simplifying the rules and conditions. Court considers it necessary to revise the Commission's guidelines on activities to be performed by certification bodies regarding the nature, coverage and information requirements, particularly on tasks related to the validation of statistics of Member States relating to controls and inspections.

## REFERENCES

[1] <http://www.eca.europa.eu>

[2] Raportul annual referitor la executia bugetului (2010/C 303/01)RO 9.11.2010 Jurnalul Oficial al Uniunii Europene 3

## STUDY ON THE FINANCIAL SUPPORT FOR ROMANIAN FARMERS, AFTER 2007

Ruxandra Maria GAIȚĂ, Camelia MĂNESCU, Lucian MORARIU, Andreea RADU, Nicoleta MATEOC-SÎRB

Banat's University of Agricultural Sciences and Veterinary Medicine, Timișoara  
Nr. 119, Calea Aradului, 300645, Timișoara, Romania, Phone: + 40(0)256 – 494023,  
Fax : +40(0)256 - 200296, E - mail : ruxandra\_gaitza@yahoo.com

*Corresponding author:* ruxandra\_gaitza@yahoo.com

### Abstract

*This paper presents the financial support mechanisms for Romanian farmers, the forms of direct payments formed by Single Area Payment Scheme (SAPS) and Complementary National Direct Payments (CNDP) and their quantum and grant arrangements in the vegetable sector during the 2007-2010 period. The European Union established a single area payment scheme for new Member States, category that includes Romania and Bulgaria. This scheme simplifies the system of direct payment that is given in the old Member States of the European Union and allocates a uniform amount per hectare of eligible land. Direct payments are given uniformly as a single payment per hectare, payable once per year and totally dislocated from production, for all farmers who meet the eligibility conditions and that submit a grant application to request this aid. The funding source is represented by the European Guarantee fund for Agriculture. CNDP represents a direct complementary subsidy form to the SAPS quantum for crops located in arable land and eligible for SAPS, support financed from the national budget and European Fund for Agriculture and Rural Development.*

*Keywords:* European funds, direct payments, beneficiaries

### INTRODUCTION

Financial support mechanisms for Romanian farmers for the seven years of the financial perspective between 2007-2013 can be presented as follows:

#### 1. Direct payments per hectare

The amount awarded in 2007 was **50 euros per hectare**. This amount has increased step by step, every year, reaching **over 200 euros per hectare per year in the year 2013**. The quantum allocated from European funds to the SAPS payment scheme in 2010 was 80.36 euro / ha, while the one from the national budget was 50.64 euro / ha, representing a total sum of 131 euro / ha.

Direct payments per hectare introduced in 2007 are financed from EU funds.

The institution that implements the direct payments per hectare is the Agency for Payments and Intervention for Agriculture (APIA). In each county of Romania there are several centers of this agency. [1, p. 308].

From January 1st 2007 APIA runs the European funds for implementing support

measures financed by the European Agricultural Guarantee Fund .

The APIA campaign starts receiving applications for payment support schemes on the area in 2011, between 1<sup>st</sup> March to 16 May, 2011.

#### 2. Complementary National Direct Payments (CNDP)

CNDP were introduced in 2007 and are added to direct payments per hectare. The difference is that the complementary national payments are paid by the Romanian state from the budget of the Ministry of Agriculture.

#### 3. Funds for Rural Development

The Rural Development Funds are the financial supports for Romania from the European Union for investments in agriculture and rural development.

In accordance with the negotiations between Romania and the European Union our country has more than **8 billion euros** for the 2007-2013 period, which means over 1.0 billion euros per year.

To this contributions from the Romanian state are added, depending on the types of

investments that are made.

#### 4. State Aids

Rural Development Funds are financed by the Payment Agency for Rural Development and Fisheries. This agency has 42 county offices where the projects were submitted since spring 2007.

State aids are distributed through APIA and the Department of Agriculture and Rural Development (DARD).

#### 5. Market Mechanisms

The market mechanisms represents the actions to protect the agricultural producers both in relation to competition from outside the European Union and against changes in prices of agro-food products.

Market Mechanisms are managed by the Agency for Payments and Intervention for Agriculture (APIA).[2]

### MATERIAL AND METHODS

Research has been made at APIA, from where data was taken, concerning direct payments on the two payment schemes (SAPS + CNDP) for a period of analysis of 4 years, between 2007-2010.

All materials and data obtained were processed and interpreted offering an overview of the evolution and direct payments granted to agriculture in Romania after 2007.

Another source of information used was the report on the distribution of direct payments to farmers in 2009, report published by the European Commission.

### RESULTS AND DISCUSSIONS

#### Financial support for farmers in 2007-2008

Area payments made by the Agency for Payments and Intervention for Agriculture (APIA) from European funds and from the national budget exceed 710 million euro, of the total amount planned for 2007 (with a value of 730.8 million euros).

From the total number of 1.241.701 farmers who applied for direct payments in 2007, 99,73% (exactly 1.238.471 farmers) have already received the recurrent sums from SAPS and CNDP, according to 8.588 million hectares.

Of the total amount for payment in 2007, 440 million euros come from the European Agricultural Guarantee Fund for Agriculture (EAGF) for the single area payment scheme (SAPS) and 290 million euro from the European Agricultural Fund for Rural Development (EAFRD) and the national budget.

The SAPS budget for Romania in 2007 was 440 million euros from EAGF, representing a subsidy of 50.5 euros per hectare, plus the 290.2 million euros from the EAFRD and the national budget.

The budget allocated for SAPS in 2008 was 528.82 million euros, financed by EAGF, the Romanian farmers receiving 60.6 euro per hectare. Besides these amounts payments from the national budget are added (Complementary National Direct Payments) set for 2008 at 47 EuroS for basic crops. [5]

#### Financial support for farmers in 2008-2009

The European Commission has published in 28 January 2011 a **report** on the **distribution of funds** allocated to each member state and the amount of financial support received by farmers, based on the data on budget execution for the fiscal year 2009 and **about the situation of spending funds related to direct payments** from European Guarantee Fund for Agriculture.

Table 1. The Romanian beneficiaries and the amount of direct payments to Romania, from the EU budget, in 2009

Grants (euros / farm)	Total Amount (million euros)*	% of total amount for Romania	Farmers (no. thousands)	% of total beneficiaries
62-500	<b>166,4</b>	31,25	993.400	<b>92%</b>
500-1250	<b>38,06</b>	7,2	53.290	<b>5%</b>
1.250-2.000	13,69	2,6	9.050	0,83
2.000-10.000	64,71	12,22	15.010	1,5
10.000-50.000	<b>132,27</b>	24,95	6.130	<b>0,56</b>
50.000-100.000	54,8	10,33	810	0,075
100.000-200.000	31,29	6	240	0,022
200.000-300.000	7,4	1,4	30	0,0027
300.000-500.000	5,57	1,05	20	0,0018
peste 500.000	15,9	3	20	0,0018
<b>Total</b>	<b>530,09</b>	<b>100</b>	<b>1.078.000</b>	<b>100</b>

Source: Report on the distribution of direct payments to farmers in 2009 (report published in February 2011) [5]  
\*according to the 2009 financial year

The total direct payments dislocated from production that were given in the **European Union** in 2009 were approximately **32.8 billion euros**, subsidies given for a total of

**7.66 million farmers.**

**Regarding Romania, EU granted, according to liquidation accounting statements of accounts EAGF 2009, an amount of 530.09 million euro for a total of 1.078 million farmers.**

Most of Romanian beneficiaries (about 993,400 thousand farmers, representing 92% of all Romanian beneficiaries) received, for the agricultural areas exploited and administered in eligible holdings, by paying the single area payment scheme, subventions amounting between 62 and 500 euro per farm. The total amount allocated to these farmers is 166.4 million euro, which represents approximately 31% of the total amount accorded to Romania in 2009.

Other 53 290 beneficiaries, representing 4.9% of total farmers received farm subsidies between 500-1250 euro per farm, amounting to a total of 38.06 million euro, which represents 7.19% of the total amount.

Also, 9050 farmers have received amounts between 1250-2000 euro, representing a total of 13.69 million euros; a total of 15,010 farmers received subsidies, per farm, between 2000-10000 euro, with a total of 64.71 million euro per country; a total of **6130 farmers received subsidies per farm between 10,000 and 50,000 euro, amounting to a total of 132.27 million euro for the whole country**; a total of 810 farmers have received subsidies per farm between 50,000 and 100,000 euro, representing a country total of 54.8 million euro.

**A total of 240 farmers benefited from subsidies ranging from 100,000 to 200,000 euro, totaling 31.29 million euro**; 30 farmers have received subsidies from 200,000 to 300,000 thousand euro, amounting to EUR 7.4 million; 20 farmers have received subsidies per holding between 300,000 to 500,000, totaling 5.57 million euro and 20 of the largest recipients received subsidies of over 500,000 euro, with a country total of 15.9 million euro (Fig.1).

As a negative aspect, **from the total numbers of farmers who submitted requests for payment, a total of 1210 persons are obliged to reimburse a total of 447,000 euro** due to corrections or recovery considered

necessary after controls done by the Agency for Payments and Intervention for Agriculture. [3]

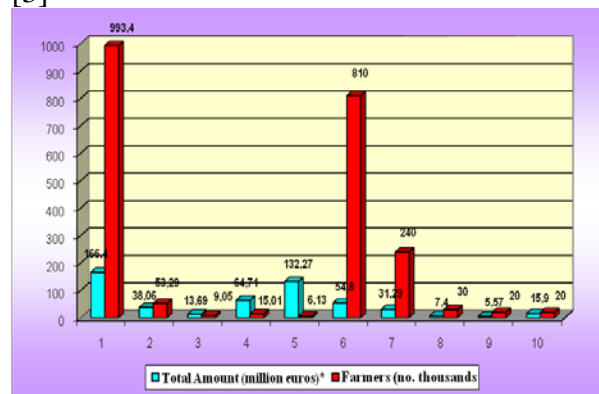


Fig.1. The amounts allocated for SAPS, to Romania, by the EU and the number of beneficiaries, in 2009

**Financial support for farmers in 2010**

From January 1<sup>st</sup> 2010, the subsidies financed from the national budget in the last three years have been removed, respectively the support for milk quality, the support granted to pork and poultry breeders, the subsidy on diesel, and the support allocated for water irrigation. From January 1<sup>st</sup>, 30% of the granted subsidy for agricultural loans and the support for specific crops such as soybean, tobacco, rice or sugar beet has also been removed.

In 2010, the amount allocated to *Single Area Payment Scheme* was 80.36 euros / ha, amount granted to SAPS recipients and financed by the European Agricultural Guarantee Fund (EAGF). The financial support per allocated area, in 2010, from the national budget, was 50.64 euro / ha. [5]

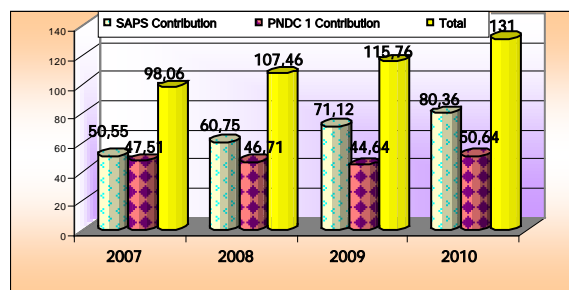


Fig. The amount allocated for direct payments (SAPS + a PNDC), in the vegetable sector, in 2007-2010 [5]

In Fig.2. we present the evolution of the amount allocated for direct payments on vegetable sector in 2007-2010.

The contribution of SAPS increased gradually each year, from 50.55 euros / ha in 2007 to

80.36 euros / ha in 2010, with 29.81 euros / ha more than in 2007.

In 2007 CNDP reached the amount of 47.54 euro / ha, with significant growth in following years, respectively 50.64 in 2010.

The subsidy paid per hectare for Romanian farmers from the two direct payment schemes (SPS + PNDC1) for 2007 was 98.06 euro / ha, reaching a value of 131 euro / ha for 2010.

*Single Area Payment Scheme* is granted in a fixed amount per hectare, payable once a year, dislocated from production, for surfaces maintained in good agricultural and environmental condition, and specific, for crops located on arable land:

-cereals;

- protein crops;

-industrial plants;

-root crops ;

-potatoes, vegetables, strawberries, melons, flowers and ornamental plants, fodder plants and other crops, other cultures on arable land and the land left uncultivated deliberately;

Complementary national direct payments (PNDC 1) is a complementary form of direct subsidy to the SAPS amount, dislocated from production, for all crops located in arable land and eligible for SAPS, but excluding the permanent crops and permanent pastures. [2]

### **Campaign for receiving payment requests for SAPS 2011.**

APIA starts the receiving campaign for payment claims for the area support schemes for 2011 between 1 March to 16 May 2011.

This year Romania benefits from a financial allocation of 907,473 millions euro from the European Agricultural Guarantee Fund (EAGF) for the single area payment (SAPS), which means that the farmers will receive about 100 euro per hectare, compared to 80.36 euro / ha in 2010.

In 2011, the financial support package for Romanian farmers is estimated at 1.6 billion euro in 2011, of which 1.3 billion euro from European Union budget.

The amount allocated to the payment scheme SAPS from European funds was 80.36 euros / ha in 2010, but in 2011, reported to value and number of hectares it will reach 100 euro / ha. Also, the financial support from the national budget allocated on the area in 2010 was

50.64 euro / ha and for 2011 it will be approved for an amount of the same value.[4]

## **CONCLUSIONS**

1. Schemes / surface support measures are financed from the European Agricultural Guarantee Fund and the European Fund for Agriculture and Rural Development.

2. Direct payments that may be granted to Romania from the EU budget increased from 440 million in 2007 (25% of the negotiated amount) to 1766 million in 2016 (full amount) if in accordance with the agreed commitments.

3. Under these conditions the amount per one agricultural eligible hectare increases proportionately from 50.5 euros in 2007 to 201.6 euros in 2016. Therefore, only in 2016, the full direct support from the European Union could reach 200 euro / ha, thus 100% of the direct payments allocated to Romania.

4. Until then the Romanian farmers receive only a part of the direct payments due (according to negotiation), while the farmers from the EU-15 receive payments at their full value. This situation greatly disadvantages farms in the new Member States and holdings whose level of profitability and competitiveness is much lower than in the older EU member states. In these circumstances, the discrimination made on allocating financial support will make these differences even more pronounced, favoring Western European farms.

## **REFERENCES**

- [1]. Man, T.E., Mateoc-Sîrb, Nicoleta, Dezvoltare rurală și regională durabilă a satului românesc, Timișoara, 2007
- [2]. Ministerul Agriculturii și Dezvoltării Rurale - MADR, Anexa nr.3/22
- [3]. Raport privind distribuirea plăților directe către fermieri în 2009, raport publicat de catre Comisia Europeana, 28 ianuarie 2011
- [4]. <http://www.apia.org.ro>
- [5]. <http://www.financiarul.ro/2009/12/03/>

## COMPARATIVE ANALYSIS OF THE EVOLUTION OF EMPLOYMENT IN AGRICULTURE IN ROMANIA AND FRANCE

**Ruxandra Maria GAIȚĂ, Camelia MĂNESCU, Diana BLAGA, Miroslav RAICOV, Miruna DORNEA, Păun Ion OTIMAN**

Banat's University of Agricultural Sciences and Veterinary Medicine, Timișoara  
Nr. 119, Calea Aradului, 300645, Timișoara, Romania, Phone: + 40(0)256 – 494023,  
Fax : +40(0)256 - 200296, E - mail : ruxandra\_gaitza@yahoo.com

**Corresponding author:** ruxandra\_gaitza@yahoo.com

### **Abstract:**

*In all economically developed countries, workforce is employed in a high proportion in services (tourism, trade), then a lesser extent in industry and in a very low proportion in agriculture. Although the employment in agriculture population is still one of the largest in Europe, well above the EU average, of 3.5%, the share of agricultural population dynamics shows a gradual downward trend of it, from 40.9% in the year 2000 to 26.8% in 2009. In countries like Germany, Britain and France the share of population employed in services exceeds 70% (France holds 76%). Even in countries with a medium or below average level of development like Spain, Portugal, Greece, Croatia, Hungary and Poland the share of population employed in services exceeds 60%. Regarding Romania, in 2010, the share of population employed in services is only 51% of the total, that of agriculture 24%, construction 7% and industry 18%.*

**Keywords:** rural, workforce, employment in agriculture

### **INTRODUCTION**

The population employed in agriculture represents an important indicator, in a country's agricultural sector.

The population employed in agriculture recorded large oscillations, in Romania, during 2000-2010, from 40.9% to 24%.

### **MATERIAL AND METHODS**

The two bibliographic sources used, for the analysis of population employed in agriculture, in Romania were: *Dezvoltarea rurală și regională durabilă a satului românesc*, Nicoleta Mateoc-Sîrb, Ungureanu, G and *Implications of the economic growth reducing the unemployment*, Nicoleta Mateoc-Sîrb, Gh. S. Sârb, Victoria Șeulean, Teodor Mateoc, Camelia Mănescu.

The statistical data used, for the analyse, in France, were taken from these sites: *Agreste – Handbook of Agricultural Statistics* and *National Institute of Statistics and Economic Studies*.

To achieve the objectives of this work, the

methods used were: data collection, data processing, data analysis and interpretation of data.

### **RESULTS AND DISCUSSIONS**

#### **WORK FORCE IN THE MEMBER STATES OF THE EUROPEAN UNION**

The employment in agriculture in the European Union includes all persons working on farms.

In the European Union, member countries noted important variations of employment rates in the working population. Some countries have already reached the target occupancy rate of 70% imposed by European Union policy (Sweden - 73.5%, United Kingdom - 71.7%, Denmark - 75.9%), but also countries that still have levels of employment rates below the EU average (Italy - 57.6%, Poland - 52.8%, Hungary - 54.8%).

Regarding the employment in EU agriculture, the data presented in Table 1. is particularly representative on the workforce in agriculture. Employment in agriculture in the 15 old EU member states is 4.1%, in contrast to

employment in the EU - 25 is 4.5% and 5.6% in the EU - 27.

Table 1. Evolution of employment in agriculture, during 2002-2008%

Country	2002	2003	2004	2005	2006	2007
UE 27	7,1	6,8	6,3	6,1	5,8	5,6
RO	37,7	37,7	32,6	32,3	30,6	29,5
BU	10,7	11,1	10,7	8,9	8,1	7,5
FR	4,1	4,3	3,9	3,6	3,7	3,4
IT	4,9	4,7	4,2	4,2	4,3	4,0
DE	2,5	2,4	2,4	2,4	2,3	2,2
UK	1,4	1,2	1,3	1,4	1,4	1,4
UE 25	5,5	5,3	5,0	4,9	4,7	4,5
UE 15	4,1	4,0	3,8	3,7	3,6	3,5

Source: Processing by Eurostat;

The proportion of population employed in agriculture in Romania is the largest in the EU, but is still down from the pre-accession period (from 32.3% in 2005 to 29.5% in 2007 and 27.7 in 2008). The largest source of decrease is external migration, especially to countries like Spain and Italy, facilitated by freedom of movement in Europe.

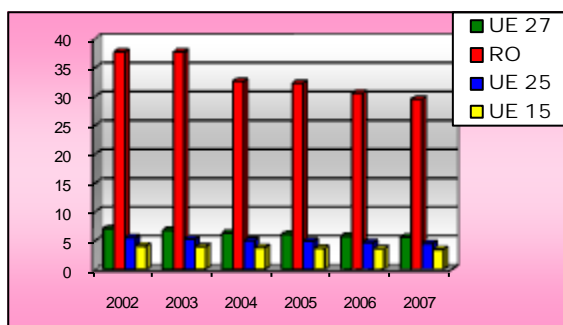


Fig. 1. Evolution of employment in agriculture, during 2002 – 2007

The Romanian agriculture focused on over 50% of EU farmers. Approximately 3.5 million people from the agricultural population express a social burden rather than a factor of social progress due to a pronounced aging degree and the state of poverty in which they are living.[2]

### ANALYSIS OF WORKFORCE IN FRANCE

Concerning the employment structure by sector, the services sector has the highest share in France, of over 70%, in contrast to Romania, where only half the number of people employed are absorbed in this sector, which is approximately 50%.

A quarter of the employed population in

Romania is working in the agricultural sector, while in France this sector represents only 3% of the total employed population.

Table 3. Analysis indicators of economic development in France and Romania

Analysis Indicators	Romania	France
Area (in km <sup>2</sup> )	238.391	543.940,9
Population (in millions)	21.435.200	64.322.785
Population density (number of inhabitants/km <sup>2</sup> )	94.1	113,6
The structure of employment (%)	100	100
Agriculture	24	3
Industry	18	14
Construction	7	7
Services	51	76

Source: Agreste - Farm Structure, 2010 ;

The Romanian rural area continues to be dominated by the agricultural employment population even if the share of this category has declined steeply in the last decade.

In 2009, the share of population employed in agriculture was 26.8%, the largest in Europe, well above the EU average of 3.5%.

Regarding Romania, the share of population employed in services in 2010 was only 51% of the total, that of agriculture 24%, construction 7% and industry 18%.

As reflected in the figures below, the most important sector of the population employed in the case of France is the service sector.

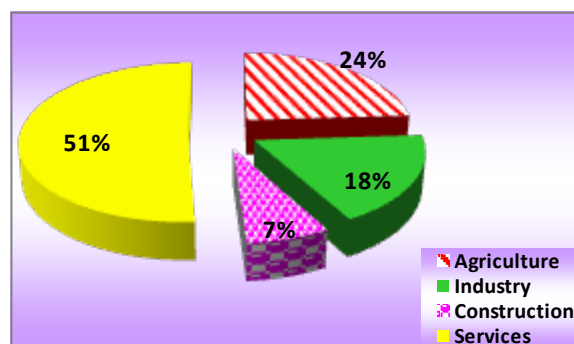


Fig 2. Employment structure by sector of activity, in Romania, in 2010

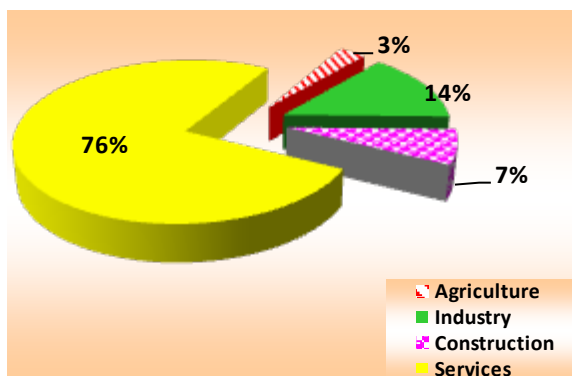


Fig 2. Employment structure by sector of activity in France, in 2010

Population structure by sex in France is as follows: female population is 33,186,221 thousand people, its percentage: 51.6% in the total population of France is higher than males (48.4%) and the male population amounts to a total of 31,136,564 thousand.

Regarding the population structure by age, in France the percentage of population of over 59 years of age is 22.2% of the total population, while young people under 20 years represent only 24.81% of the total.

The largest share of employment in France is held by the services sector - 76%, followed by industry with 14% and agriculture with 3%.[4]

Table 4: Population by type of activity, at 1<sup>st</sup> January 2007 number

Specification	France
<b>Active population</b>	<b>29.748.028</b>
Active population employed	26.341.541
- Men	13.998.649
- Women	12.342.892
Unemployed	3.406.487
- Men	1.591.115
- Women	1.815.372
<b>Inactive Population</b>	<b>33.852.428</b>
Pensioners or early retirees	13.121.778
Pupils, Students, unpaid trainees	5.251.849
Other inactive persons	15.478.800
<b>Total population</b>	<b>63.600.455</b>

Source: National Institute of Statistics and Economic Studies (Insee), Population Census, 2007

Regarding the active population by age (total population of 29,748,028 active persons) the largest share is held by the age group between 25-54 years (23,038,772 thousand people), followed by the 15-24 years of age group with a share of 11.7% (3,465,060 thousand persons) and the age group 55-64 years, accounting only 10.4% of the total.[3]

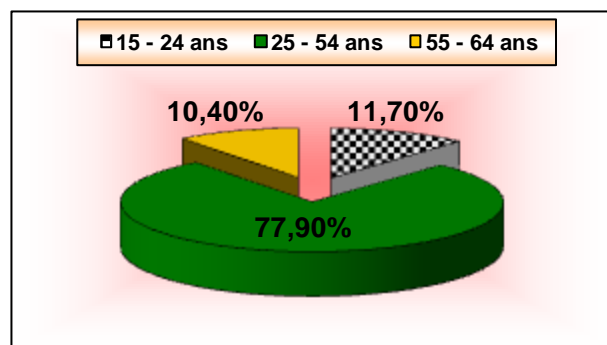


Fig 1. The structure of the active population, by age group, in France

### ANALYSIS OF WORKFORCE IN ROMANIA

In the first quarter of 2010 Romania's active population was 9,721,000 persons, of whom 8.934 million persons (including armed forces and people working in the informal sector) were employed and 787,000 people were unemployed. Of the total employed population only 6.35% were employees.

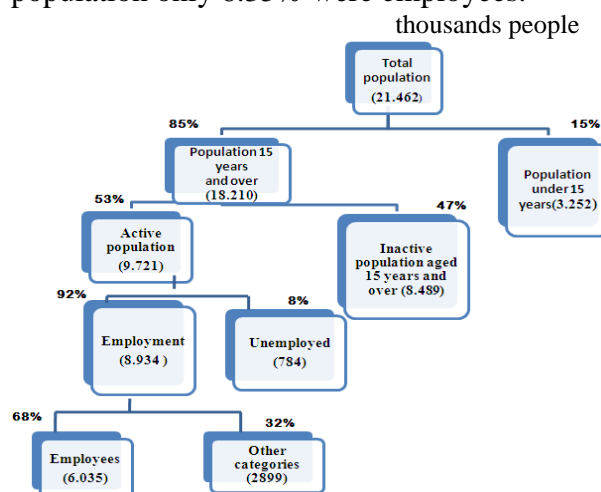


Fig 4. Categories of the population in the first quarter, in 2010

From the potentially active population group of 18,210 people only 9,721 (in effect 53.38%) are employed, from which 787,000 are registered as unemployed.

It should be noted that, from the total rural population, the share of population employed in agriculture has increased significantly since 1990, from 28.8% to 40.8% in 2000 and slightly decreased in 2003 to 39.5%, respectively 24% in 2010.

The employment growth in agriculture was caused not only by the needs of agriculture, but especially as labor layoffs in other sectors



of economy.[1]

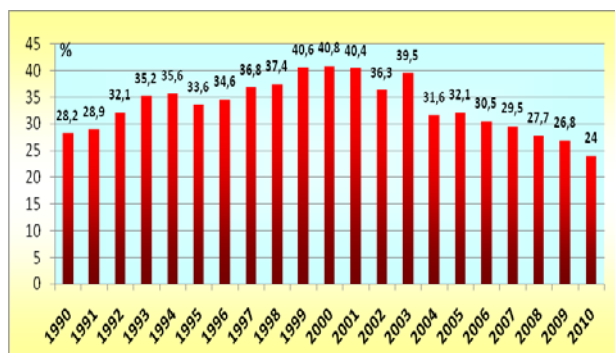


Fig. 5. Proportion of population employed in agriculture from the total employment, between 1990-2010

Although employment in Romanian agriculture is still one of the largest in Europe the share of agricultural population dynamics shows a gradual downward trend from 40.9% in 2001 to 24% in 2010.

At the end of 2008, from a total of employed civilian population of 8.75 million people employed in agriculture, hunting and forestry, there were only 2.42 million active workers, representing approximately 27.7% of the total employment.

Concerning the population occupied in agriculture by age groups we observe an aging phenomenon of the workforce in this branch. Therefore, over half of this population belongs to the age groups of over 45 years old and the share of population employed in agriculture between the ages of 55 and 64 years is increasing. The workforce is characterized by an uneven distribution of age groups.

The workforce aging phenomenon is known all over the world, which is modernizing, but in our country this process is particularly emphasized.

Our migration pattern in the postwar period was very fast and intense, meaning a real change in the majority of the rural world and transferring it to the city.[2]

This complex and contradictory phenomenon has led to a rejuvenation of the workforce in industry and construction (80% of workforce in these industries comes from rural areas) and on another level it causes a forced aging of the population that remained in the rural areas.

## CONCLUSIONS

1. In developed countries such as France the agricultural work is in general family work, family farms making less and less appeal to salaried workforce;
2. In Romania about 49-50% of the workforce employed in agriculture is aged 60 years and 49.7% above 60 years of age.
3. Maintaining a stable and viable rural population requires measures for insuring an optimal number of jobs in agriculture and related services;
4. The share decline of employment in agriculture is caused by:
  - the withdrawal of a large number of older people from agriculture;
  - low incomes achieved in agriculture, which are not attractive to young people;
  - limited rural investments - services and small industry – that can absorb younger workforce.

## REFERENCES

- [1] Nicoleta Mateoc-Sîrb, Ungureanu, G., Dezvoltare regională și rurală. Evoluții și tendințe, 2010;
- [2] Mateoc-Sîrb Nicoleta, Gh. S. Sîrb, Șeulean Victoria, Mateoc, T., Mănescu Camelia - Implications of the economic growth reducing the unemployment - International Scientific Symposium „Durable agriculture – present and perspectives” – Faculty of Agriculture, Iasi, 2010, (magazine indexed in BDI – Cab International England Publishing – Organic Research Database), ISSN 1454-7414;
- [3] Agreste – Handbook of Agricultural Statistics,
- [4].National Institute of Statistics and Economic Studies

## RURAL DEVELOPMENT ANALYSIS OF DAMBOVITA COUNTY

Ileana GEORGESCU

University of Agricultural Sciences and Veterinary Medicine, Bucharest  
59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232,  
Fax: + 40 21318 28 88, E-mail : [ilytu@yahoo.com](mailto:ilytu@yahoo.com)

*Corresponding author* : [ilytu@yahoo.com](mailto:ilytu@yahoo.com)

### Abstract

*The present study examines the extent to which funds have been applied and used in specific agricultural policy and the effects on rural development in the county Dambovita. The development work have been taken into account statistical data provided by Dambovita County Prefecture and Departament for Agriculture and Rural Development Dambovita. Analyzing the nine measures that have been funded in the country of Dambovita a total of 1119 project with a total value 635.333.604,1 may be issued conclusions regarding the impact on rural development of Dambovita county in terms of both agricultural and economical.*

**Keywords:** Rural area, Rural development, NPRD measures

### INTRODUCTION

Located in southern central part of the country, overlapping and Ialomita river basins of the rivers Dambovita, Dambovita county has an area of 4054 square kilometers (1.7% of the country), being prepared in three steps within the landscape consisting of mountains (9%), hills (41%) and plains (50%). The specific conditions of climate and vegetation on the plains were formed most fertile soils in the county.

From the administrative point of view Dambovita county has 2 municipalities, 5 towns and 81 communes with 361 villages. Rural area is composed of all municipalities and is defined in Article 5 of Law 2 / 1968: "The village is the administrative territorial unit encompassing the rural population united by common interests and traditions. A village is made up of one or more villages by economic conditions, social, cultural, geographic and demographic. Common organization provides economic, cultural and social administration of rural locality".

Human resources are the main factor in the development of rural area and beyond. Rural development has a distinct place within regional policy and refer to the following aspects:

- Removal / reduction of poverty in rural

areas;

- Balancing economic opportunities and social conditions in urban and rural areas;

- Stimulating local initiatives;

- Spiritual and cultural heritage preservation.

In the 2007-2013 financial perspectives of European Union rural communities will be jointly financed by the Common Agricultural Policy specific funds, financial instruments and by other Community policies, especially structural funds in regional policy. The National Rural Development Programme are concerned a number of objectives to support growth and competitiveness of the agro-food sector forestry, improving the environment and the countryside, improving quality of life in rural areas, launch and operation of local development initiatives.

The objectives of the three axes of the program is done by implementing the measures provided for each axis. Such measures have been taken in the Dambovita County and the following objectives:

- "Setting up of young farmers" - Measure 112

- "Modernization of agricultural holdings" - Measure 121

- "Adding value to agricultural and forestry" - Measure 123

- "Improving and developing infrastructure related to the development and adaptation of agriculture and forestry" - Measure 125

-“Support for semi-subsistence farms”-  
Measure 141

-“ Support for the creation and development  
of micro-enterprises” - 312 Measure

-“Encouraging of tourism activities”-  
Measure 313

-“Village renewal and development, heritage  
conservation and improving rural heritage” -  
Measure 322

- 431.1 as“ Under Phase 3 - Financial support  
for preparation of dossiers for selected GAL”  
“Support for semi-subsistence farms”-  
Measure 141

Support for restructuring of semi-subsistence  
is a tool to determine, primarily a  
management improvement accompanied by  
their transformation into commercial family  
farms, able to identify new opportunities for  
recovery and increased production for sale,  
according to diversify production market  
demand and introduction of new products so  
that subsistence farmers to become  
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-“Encouraging of tourism activities”-  
Measure 313

Objective of this measure aims to develop  
tourism activities in rural areas to help  
increase the number of seats employment and  
alternative incomes, and increase the  
attractiveness of the countryside.

-“Village renewal and development, heritage  
conservation and improving rural heritage”-  
Measure 322

With this type of measure is funded projects  
aimed at creation of new roads, expansion and  
improvement of local road network, the first  
establishment, expansion and improvement of  
public sewage network, establishment,  
development of public recreation space for  
the rural population (parks, children's play

areas, sports fields, bike trails), renovation of  
public buildings and car park facilities,  
squares, spaces for fairs, etc.). Investment in  
construction of new kindergartens for  
children, including endowments; studies on  
cultural heritage (material and immaterial) in  
rural areas with the possibility of putting them  
and put them to the community;  
- “Setting up of young farmers” - Measure  
112

The statistical data presented in PNS and in  
the National Reform Programme highlighting  
the fact that a relatively high proportion of  
young people, aged between 24 and 44 years,  
are occupied in agriculture. This situation is  
caused by the fact that not having other  
sources of income, young people remain in  
rural communities they belong to help carry  
out agricultural activities.

Improving and increasing the agricultural  
sector by promoting the installation young  
farmers and supporting the modernization  
process and compliance with the requirements  
environmental protection, hygiene and animal  
welfare, safety at work increase the number of  
young farmers to start farming for the first  
time that a heads of farms and encouraging  
young farmers to make investments  
-“Modernization of agricultural holdings”-  
Measure 121

The measure aims at increasing the  
competitiveness of the agricultural sector  
through a better use of human resources and  
production factors. Promoting investment in  
agricultural holdings of the plant and animal  
breeding to achieve new construction and / or  
upgrading of existing agricultural buildings  
and utilities within their associated  
acquisition of machines and new  
establishment of plantations, etc.

-“Adding value to agricultural and forestry”-  
Measure 123

The measure aims at increasing the  
competitiveness of agro-food processing  
enterprises and by improving the overall  
performance of forestry businesses processing  
and marketing of agricultural and forest  
products through better utilization of human  
resources and other inputs.

- 431.1 as “Under Phase 3 - Financial support for preparation of dossiers for selected GAL”. Sub-measure 431.1 supports the construction of public-private partnerships, local development strategies and training for Local Development Plan participation in the selection of GAL [1], [4].

## MATERIAL AND METHODS

In the case of Dambovită County, projects selected for funding under the National Rural Development Programme 2007-2013 are presented in Table 1.

Table1: Status of projects selected for funding in the county of Dambovită, the National Rural Development Programme 2007-2013

Nr	Measure	Nr. of projects	Total value of projects (lei)
1	112-“Setting up of young farmers”	89	7.522.778,1
2	121-“Modernization of agricultural holdings”	31	80.446.771
3	123-“Adding value to agricultural and forestry”	11	87.650.056
4	141-“Support for semi-subsistence farms”	877	27.837.035
5	123-“Adding value to agricultural and forestry State aid scheme XS13/2008”	6	34.758.584
6	312-“Support for the creation and development of micro-enterprises”	39	39.064.496
7	313-“Encouraging of tourism activities”	17	25.426.314
8	322-“Village renewal and development, heritage conservation and improving rural heritage”	24	288.959.866
9	431- Under Phase 3 - Financial support for preparation of dossiers for selected GAL	12	3.673.360
10	125- “Improving and developing infrastructure related to the development and adaptation of agriculture and forestry”	13	39.974.344
	<b>TOTAL</b>	<b>1119</b>	<b>635.333.604</b>

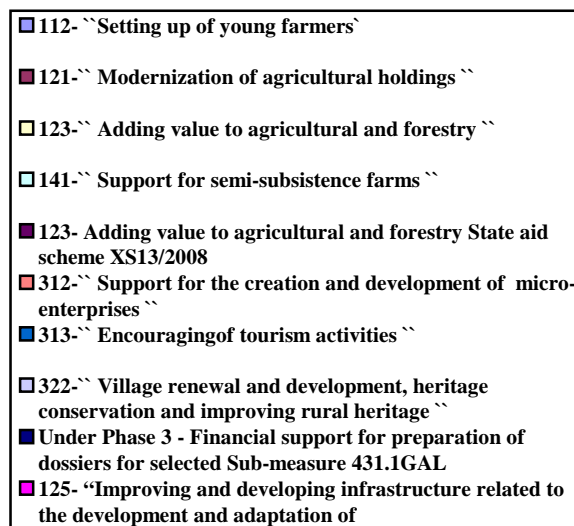
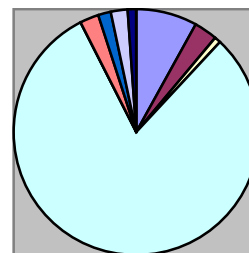


Fig. 1. Situation the number of projects approved in Dambovită County and at national level

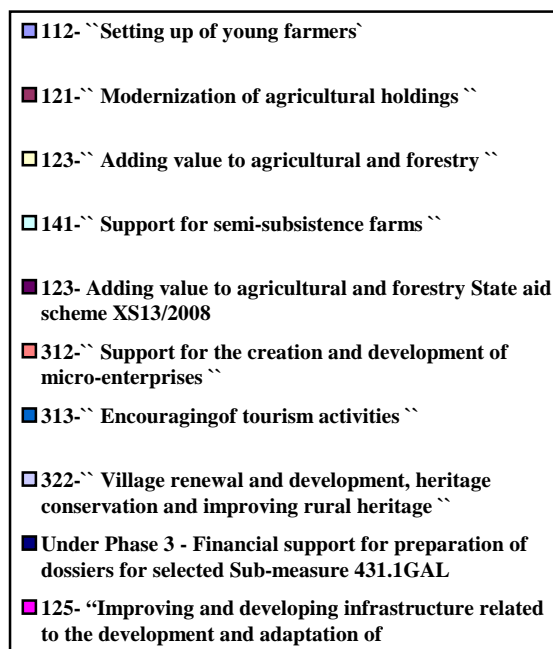
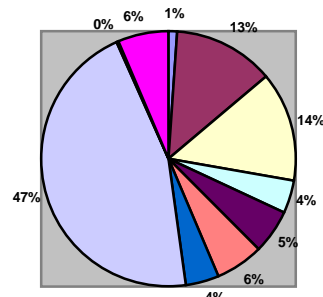


Table 2. Share of projects selected in Dambovită County from the national projects, MAFRD [2], [3]

Measures	Projects selected at national level	Selected projects in the county Dambovită	share (%)
112	5.706	89	1,55
121	1.845	31	1,68
123	562	11	1,95
141	18.408	877	4,76
123(XS13/2008)	215	6	2,79
312	2.196	39	1,77
322	3.039	24	0,78
431.1	111	12	10,8
TOTAL	30.733	1.119	3,64

## RESULTS AND DISCUSSIONS

From the data we can see that the largest share a recording projects as part of 431.1. The 12 selected projects each have an approximate value of 310.250 lei and include areas of development strategies for municipalities Darmanesti, Sotanga, Buciumeni, Bărbulețu, Ocnita, Dobra, Rascaeti, Razvad, Cornatel, Visinesti, Titu, the average total county 3.64% Dambovită being selected projects. Measure 141 projects aiming at an average value of 31.764 lei in addressing particular individuals and PFA's. Although they share the lowest 0.78%, projects under Measure 322, reaching their highest value to the amount of 288.959.866 lei, 24 recipients of this amount is common Dambovită county. Project financing is an important one for the village Potlogi / Odobesti with the execution of water supply network, sewage network and treatment plants, day care center for persons requiring social assistance, expanding local networks of natural gas supply, upgrading village roads, maintaining cultural traditions is the value of

25.066.981 lei. Moreni village receives a project worth 12.242 million lei, which provide funds for sewage treatment plant, upgrading roads, rehabilitation and cultural endowment and foundation and endowment home child day center. In remarks 121se measure aims at setting up the project that a farm with dairy processing section and unit energy production from renewable sources, whose value is 21.613.514 lei. The project amounting to 26.445 million lei, which aims to build a meat processing factory in the village Racari is included in Measure 123

## CONCLUSIONS

The data presented follows that Dambovită county funding from NPRD 2007-2013 further contributed and contribute to business development in the rural economy with infrastructure works that lead to the modernization of the romanian village and even economic growth of the economy. For the future, the county Dambovită NPRD 2007-2013 is focused on a number of objectives to support the increasing competitiveness of the agro-food and forestry, improving the environment and the countryside, improving life in rural areas, diversification of rural economy, launch and operation initiatives rural development.

## REFERENCES

- [1] \*\*\*-Programul National de Dezvoltare Rurala 2007-2013, versiunea decembrie 2009
- [2] \*\*\*-internet, WEB, Prefectura Judetului Dambovită
- [3] \*\*\*-internet, WEB, Ministerul Agriculturii si Dezvoltarii Rurale
- [4] I. Bold, 2003 ``Spatiul Rural definire, organizare, dezvoltare``, ed. Mirton, Timisoara 2000

## MORPHOLOGY AND MICROSTRUCTURE RELIEF FROM DEPRESSION AGRIJ - VILLAGE ROMÂNAȘI

**Adelaida Cristina HONTUȘ**

University of Agronomical Sciences and Veterinary Medicine - Bucharest, Faculty of Management, Economical Engineering in Agriculture and Rural Developments, No. 59, Mărăști Boulevard, no.1 Sector, Bucharest, cod 011464, Romania, Phone: +40 21 318 25 64/232, Fax: + 40 21318 28 88, E-mail : [adelaidahontus@yahoo.com](mailto:adelaidahontus@yahoo.com)

**Corresponding author:** [adelaidahontus@yahoo.com](mailto:adelaidahontus@yahoo.com)

### **Abstract**

*This paper is the result of both field investigations and consultation of existing bibliographic material. The relief of the commune administrative territory overlaps Românași two major relief units: Depression Agrij and Meseș Mountains. In this paper have revealed a positive or negative series of notes on planning and have shown some ways to improve spatial Românași village. Presentation of various aspects suite is recorded by a series of maps, charts and tables, many of them corresponding to some practical requirements. Due to its location along the European road E81 and in the vicinity of large cities, Zalău, Cluj-Napoca, Românași common amenities for potential investors.*

**Keywords:** *geological analysis, laminated clays, sediments, morphometric characters, hydrographic network landscape fragmentation*

### **INTRODUCTION**

Analysis of the spatial position of the commune of Românași by reporting to the various physical or economic and geographical landmarks, allows us not only a full understanding of qualitative issues concerning the natural environment and human-nature relationship.

The village occupies the central Românași Agrij Depression, western section of depression than older unit known as the geographical literature Almas-Agrij Depression. This valley is flanked by the hills east of Cluj and Dej, namely Șimișna-Garbou Hills and west of the crystalline peak Meseș Mountains. Depression is open to North Someș Passage area of local subsidence Jibou. The advantageous position compared to natural units of the area, the village is given a series of mild economic development opportunities, primarily resulting from a high potential of local natural and human factors. They are added to complement the development of the entire network of settlements in the valley and county.

### **MATERIAL AND METHODS**

This paper is the result of both field investigations and consultation of existing bibliographic material. The relief of the commune administrative territory overlaps Românași two major relief units: Depression and Agrij Meseș Mountains.

In this paper have revealed a positive or negative series of notes on planning and have shown some ways to improve spatial Românași village. Presentation of various aspects suite is recorded by a series of maps, charts and tables, many of them corresponding to some practical requirements.

### **RESULTS AND DISCUSSIONS**

As a natural unit Someșeni Platform region register as a transition zone to the Transylvanian basin, which is why in some papers is defined as "**depression contact**."

There is a second understanding that depression is regarded as a compartment of a depression larger units called Almas-Agrij depression, named after two rivers that run through and drained to the same area of subsidence from Jibou. Fair, however,

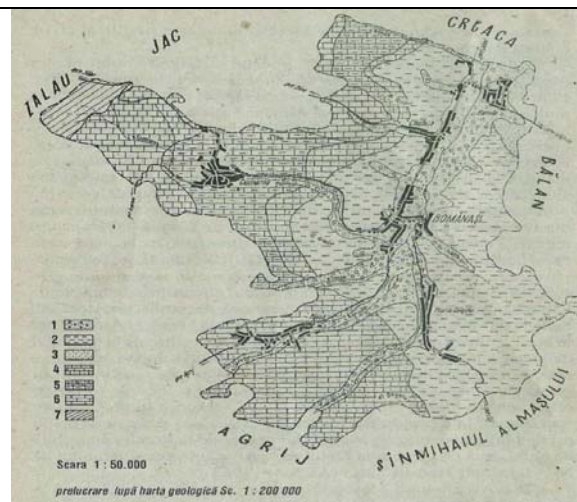
consider the distinction between the two compartments of his depression and depression Agrij Almas, because "entwining" is weak as evidenced by their presence interfluvial of them making a specific note of discontinuity.

**The natural conditions of the depression** have many common elements, which is why we extended the study on its entire territory, focusing in detail on the central sector which is superimposed over the village.

**Particularly important** in terms of stratigraphic layers are for depression Agrij smilted representing a final Oligocene sedimentary cycle. They occupy large areas extending far more Almas Depression. Are formed on the bottom of siliceous sandstone loose, white quartz sands with intercalations of red clay. Such a clay seam can be seen in a village near the natural opening on the right Agrij Românași constituting the bed slide "of a major landslide that reached even the river riverbed.

Small fragments of crystalline deposits occur even in the current interleaved Depression Almas, thus betraying an old carriage, pre-Quaternary, closely and completely changed the configuration of the river system.

Depression occurs in axial and formations Agrij newer: Quaternary represented by clays and sands and generally overlap the valley corridors. Viewed in terms of lithology, geological structure directly impacts the current issues of physical and geographical features. Thus, the presence of litho-soil Ciumărna Valley is related to the presence of limestone, just as abrasion landforms are a consequence of the presence Romita sandstone deposits, alluvial, meadow area of Agrij and its tributaries.



**Figure 1. Lithological map**

Sand and gravel belonging 1. Depozite meadow-holoceu-2-6m thick, clay-marly 2. Depozite layer Sânmihai; 3. Depozite Tihău sandstone-sandstone; 4. Depozite the marly-limestone-strata Bizusa; 5. Depozite brittle limestone-limestone Hoia; 6. Depozit compact limestone-limestone with nummulite; 7. Depozite metamorphic rocks

**Particularly complex problems in terms of tectonics provides Agrij Depression**, given its position in the direct manifestation of the relationship between the Transylvanian Basin and the unit of crystalline shale. Geological investigations reveal that the Eocene is not normally on the mountains resting Meses crystalline. Anticline appear quite large, flattened, with a maximum basal width of 6.5 km. To the north flank of this anticline is flattened and its eastern bend to the west around the northern end of the ridge Meses. Eocene deposits are covered here Aquitaniene deposit latest [2].

An interesting aspect is the contact between crystalline and sedimentary deposits that usually is less visible due to alteration in relief. Frequently, the lens forward to the east on the ridge of hills, Ciumărnei Hill, and withdrawn to the west the valleys. But there are situations where older sedimentary rocks, Eocene lower falls crystalline schists, which is most notable tributaries of Agrij Meseseni Valley and Valley Ciumărnei tin.

Subsequent course of Agrij be associated tributary valleys characteristic of either the left (Stana, Romita) or right (Groapa Sorților) on the interriver separating Agrij Almas. These valleys flowing direction in the deeper

layers of sediment were forming steep banks with higher energy relief Valley tin. Tectonics and geology so that the elements fall with direct implications on the evolution and current relief appearance Agrij Depression.

In general depression appears as a network of structural surfaces cuestas and more or less preserved. Main Custas accompanying long right bank of Agrij and the interriver, shorter growing perpendicular to the first.

**Depression on the overall relief Agrij** fragmentation is characterized by a sea of: particulars which shall in general, relatively complex river system organization in terms of:

- *major tectonic lines*, which have made morphological compartments, especially in terms of structural relief;
- *structural or lithological contacts* which allowed selective action of rain erosion;
- *river convergence zones*, such as that of Românași, must be made about the evolutionary and Almas Valley: Hida and Almas.

The main feature resulting from the prolonged action of the river system is the uneven distribution, the vertical and horizontal forms of relief, which were selected, in turn, the development of space settlements.

**Value distribution of slopes** within the village is closely linked to the distribution Românași the altitude of the relief stage and the energy. Analyzed in relation to territorial values fall between 0.5 gr. the meadow and over 20gr. steep slope areas present both in the valley corridor and the tributaries. 1-10gr slopes predominate, which shows the character of the landscape with hills and broad inter-arching, sometimes a surprising smoothness: At Castle Hill, Hill Cântătoreasa.

Appear even some areas with slopes approaching 0gr where poor drainage area, causing land over wetting with direct implications on natural vegetation and its effective use in agriculture: the snout, near the village gate Breb Sălajului.

**Slopes** introduces a distinct note of differences of cultures. On the flat meadow land is usually cultivated vegetables, the

"bridges" of inter-grain and fruit trees in hilly areas. Current morphological processes are also subject to the values of slopes. The run-off slopes reveal us by torrential bodies whose development is out of important agricultural land area (left side of the valley Ciumărna between Românași and Ciumărna). High values are recorded on the right slopes of the valley north of Enchanted Românași where the steep cuesta (form of relief as a slant, which appeared in a region where rock layers with alternating hard with soft, flowing water due to erosion and gradual withdrawal the slope.), far beyond the Romita.

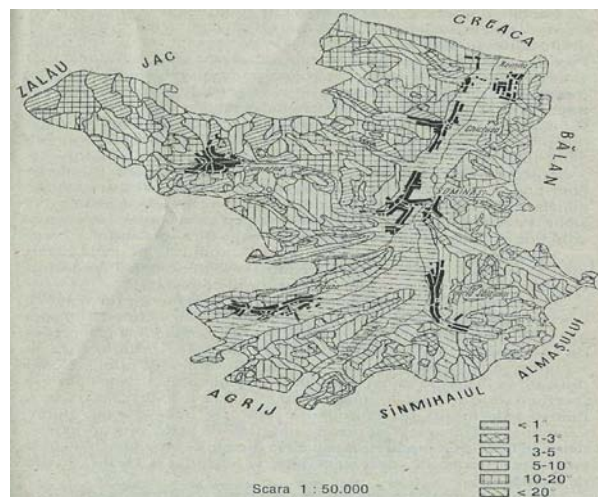


Figure 2. Map of slopes

**Under morphographical report**, the village comprises a series of inter-Românași, slopes and valleys with the general SW-NE direction towards the confluence of the Jibou Agrij with Somes. Against this background there are a number of local differences in the conduct of secondary peaks and valleys and slopes.

**Interfluves** have for the most part rounded and in some cases flat. Their presence is normal for a typical region of hills like the one in which the territory of [3].

**The slopes** are concrete expressions of the form is mostly interfluves convex or concave slopes. Agijului Valley can only speak of the existence of steep slopes, where the river undermined the head Cuesta. This is what occurs and where the most intense slope processes in the area. Welcome steep lithological appear highlighted, cut into tiles Tihău visible right from Romita and Brusturi Agijului.



**The valleys** are generally large, many of them having an intermittent flow regime. Torrential young bodies have evolved rapidly advancing and new white table very loose sediment.

**Levels of erosion** are the result of modeling in air, these are 400-500m altitude, is presenting a compact, higher extension Meses Mountains, or insular form of erosion present witnesses on both sides of the region.

The occurrence of erosion levels is made in some cases, evolutionary speaking, the presence at the beginning at the foot of piedmonts Meses accumulation occurring as flat shapes, resulting from erosion until smooth or to the release layer surface, more hard cover slightly away from the mountain, sand, clay and marl. In the village have been detected in map analysis and field research at two levels of erosion.

**The level of over 450m:** to introduce compact ridge near Meses, west of the village Ciumărna. It dominates the valley Ciumărni altitude of almost 150m, is forested and used to provide a 2 km stretch of the road that climbs to the summit in Zalau Meses.

**400-450m level,** called the marginal level, where its position on the outskirts of the village territory, has a much greater extent, presenting as large overhanging plates from deepening their valleys. To prevent flooding, are necessary in many points, consolidation of banks, which can be made by planting soft essences, and raising banks near the village Românași. Românași upstream of the tributary valleys have deepened and strengthened Răstolț, Tresna, Dry Valley, Valley Ciumărnei in their course Agrij meadow, because they no longer flow. Just to be executed this work and for some torrents that waste-dumping the meadow.

## CONCLUSIONS

For the center of the Depression Agrij, which includes the village Românași, in relation to evolutionary reshuffles occur very important river system in the Quaternary. They justify the importance of erosion processes Agrij lower basin, while confirming some results on

the evolution of Quaternary piedmont Meseșan until today.

The main elements that attract attention **geomorphological landscape** today are:

- compactness interfluvial, sweep of Almas and Agrij water, with little saddles, except for the gate-Salaj, Zalau highway passes through Cluj-Napoca;

- relations between the saddles and valleys of tributary Agrij Meses;

- series of differentiations between upper and lower basin Agrij;

- evolution of Quaternary piedmont below Meses until the phase of destruction;

- character-current processes on the territory of depression.

**In summary, we can distinguish three stages of the relief during Paleogene-current:**

- paleogene-Levantine-stage or step Eocene coastal plain, where large extension of deposits belonging to this period. Now is the outline of the rivers that came down the river Meses Almas, oriented SW-NE, as plain and slope was more pronounced than the north east, probably due to movements caused by lifting Biharia block;

- phase or phase geographical quaternary reshuffles the capture important phenomena occur even in the commune, and when the designs and Agrij. Now broadly outlines the current configuration of relief. Piedmont Meseșan begin to take this time to the destruction phase, which continues today;

- modeling-stage or phase characterized by the predominance of torrential river-slope processes which have an impact on the overall appearance of the landscape into account.

The importance of relief for Depression Agrij settlements in general and those belonging to the village Românași, in particular, is essential. The contact raised floodplain areas with slopes, looking for Glacis, entwining cones from the droppings of mountain tributaries are most favorable.

**Geotechnical conditions favorable** possibilities for easy water supply and flood protection elements have entered as a dynamic emergence and development of both villages and communication routes.

Relief has provided good jobs and shelter for the settlements. Românași village formed its

initial core set of pa Dry Valley, where he found a sheltered valley between the slopes of the broad arch. Likewise Ciumărna intertwined in a small village in the mountain valley, sheltered from the winds, rich in springs and cultural fields. We therefore conclude that relief Românași village with a variety of forms, it was in the pool, typing, morphostructural and human settlements development, whose relative dependence longer maintain this important factor today.

## ACKNOWLEDGEMENTS

I would like to thank INSSE, Geological Institute of Romania and also local authorities for kindness Românași village they gave evidence.

## REFERENCES

- [1] Honțuș Adelaida, 2005, *Geografia turistică și agroturistică a României*, Editura CERES, București
- [2] Posea, Gr. și colab., 1970, *geomorfologie generală*, Editura Didactică și Pedagogică, București
- [3] Savu, Al., 1962, *Contribuții la studiul rețelei hidrografice din Bazinul Almaș-Agrij*, St. Univ. Babeș-Bolyai Cluj-Napoca
- \*\*\* (2006) – *Atlasul climatologic* – I.M.H. București
- \*\*\* (2007) – *Harta solurilor României*, scara 1/500000, Inst. Geol., București
- \*\*\* (2007) – *Hărțile topografice militare*, scara 1/25000, 1/50000, D.T.M. București
- \*\*\* (2002, 2006, 2007, 2008) – *Anuarul statistic al României*, Comisia Națională de Statistică, București

## HYDROSPHERE ENVIRONMENTAL CHANGES FROM COMPLEX PLANNING HYDROTECHNICAL CINCIȘ-CERNA

Adelaida Cristina HONTUȘ

University of Agronomical Sciences and Veterinary Medicine - Bucharest, Faculty of Management, Economical Engineering in Agriculture and Rural Developments, No. 59, Mărăști Boulevard, no.1 Sector, Bucharest, cod 011464, Romania, e-mail: [adelaidahontus@yahoo.com](mailto:adelaidahontus@yahoo.com)

*Corresponding author* : [adelaidahontus@yahoo.com](mailto:adelaidahontus@yahoo.com)

### Abstract

*The reason for choosing this subject it is primarily the desire to publicize, to make known tourist report this geographical area (area-Cerna Cinciș lake), given that the literature treats this subject very briefly. For the development work we carried out field investigations, we conducted a thorough documentation of specialized bodies (Autonomous Romanian Waters-Tg. Mures, Hunedoara Steel Integrated, Hall Teliuc), an analytical research in the field, starting from the premises location (relief, climate, water, vegetation, soil, etc.), a prerequisite for achieving tourism (potential lake access, favorable land available for development, tourism can practice different). However, the work is a rich literature that have attempted to highlight the potential of the neighborhood, the potential attractiveness of water, to determine the type and existing forms of tourism in this area and make an assessment of the tourist flow.*

**Keywords:** reservoir lake, river basin, planning hydro catchment flood waves, hydrological system, alluvial material

### INTRODUCTION

Anthropogenic interventions Cerna basin dynamics, since 1989, based on the legal vacuum on the one hand and improper application of the law of the land, on the other hand, with blatant disregard of environmental issues, comes to argue a once again the need for reassessment of geographically Cerna river basin, and especially of its middle course.

Given that, currently, the man tends to be the main factor that influences the dynamic geographic balance of nature preservation is a necessity in the business of exploiting its potential resources, and in case of exploitation of the continental lake Travel Cinciș accumulation.

### MATERIAL AND METHODS

For the development work we carried out field investigations, we conducted a thorough documentation of specialized bodies (Autonomous Romanian Waters-Tg. Mures, Hunedoara Steel Integrated, Hall Teliuc), an analytical research in the field, starting from the premises location (relief, climate, water,

vegetation, soil, etc.), a prerequisite for achieving tourism (potential lake access, favorable land available for development, tourism can practice different).

In carrying out the work we had some difficulties due to individual privatization scheme.

However, the work is a rich literature that have attempted to highlight the potential of the neighborhood, the potential attractiveness of water, to determine the type and existing forms of tourism in this area and make an assessment of the tourist flow.

### RESULTS AND DISCUSSIONS

The whole building *hydro reservoirs* are fundamental works, in which the basic condition of rational management of water resources: namely the detention outlet control flow surplus of the rainy periods in order to build reserves for failures. [1]

**Basin storage** is controlled territory from which water collects. It should be regarded as a physical body's total geographical, hydrological system with a well-defined natural boundaries and is an integrated package of components (lithology, complex

stratigraphy, topography, climate, soil, water, vegetation) that makes each and develop following its own laws, independent of human will. [2]

**Cinciş accumulation** was sized and built with the purpose complex to mitigate flood waves on the Cerna and drinking water and industrial city of Hunedoara, located on the River Cerna.

Cinciş accumulation was performed on total capacity of 43.5 million m<sup>3</sup>, of which:

- 27 million m<sup>3</sup> useful volume for water supply and hydropower use;
- 14.9 million m<sup>3</sup> volume necessary for mitigation and protection;
- 0.2 million m<sup>3</sup> dead volume;
- 1.4 million m<sup>3</sup> volume of iron reserves.

**Lake Cinciş** on Cerna is a lake with an area of 261 ha and a volume of 43.5 million m<sup>3</sup>. Cinciş lake collects all the rivers in the area.

Due configuration of land, lake Cinciş shows the lines form of an appendix presents the areas of confluence of rivers that formed tributaries of the Cerna prior arrangement. At present their major riverbed is filled with water up to the lake reservoir.

The dam is concrete arch. Overall height is 48 m from the base of the Foundation, including the depth of the foundation. The dam is designed to create a retention of 29 x 10 m<sup>3</sup> 193.5 NNR ads.

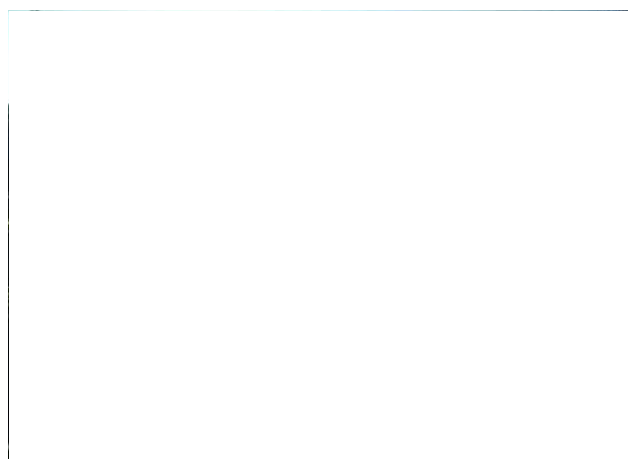


Photo 1. Arch dam of the reservoir Cinciş

### **Elements of the lake morphometric Current Projects**

Length 6700 m

Average width of 318 m

The maximum depth 40 m

Lake area 256 ha

The total volume of 43.5 million m<sup>3</sup>

Gross volume N.N.R. 38.0 mil. m<sup>3</sup>

The net volume 27.0 million m<sup>3</sup>

Dead volume of 0.2 million m<sup>3</sup>

### **Hydrological balance of the accumulation Cinciş**

Cinciş lake is situated on the river Cerna, left tributary of the Mureş and is a left tributary rivers Zlasti, Govăjdia, Valeria.

Following the model of water circulation in nature, and if the reservoirs can be a sheet of water where:

1 - Q exhaust (defluent)

2 - Q evaporated;

3 - Infiltrators adjacent porous state, under the dam;

I - Q tributaries (rivers);

II - Q from surface runoff, the slopes  $\Delta Q$

III - Q from the rain on the lake surface.

In this case we can write: (a) + (2) + (3) -  $\Delta W/t = (I) + (II) + (III)$

Or:  $Q_{afl.} + Q_{precip.} + \Delta Q - Q_{defl.} - Q_{evap.} - \Delta W/t = Q$ , deviations from the "Q" representing no-close or error.

Maximum inflow of 1998 was recorded in June ( $Q_{max. AFL} = 5.90$  m/s) and minimum inflow was recorded in August ( $Q_{min.afl} = 1.91$  m/s)

Maximum water balance in 2008 was 2.47 m/s value recorded in April and the minimum value was registered in September, representing - 1.53 m/s.

### **The degree of clogging with silt the lake Cinciş**

*Determination of displacement curve* (capacity) of Lake Cinciş method was based on a pyramid trunk. This method considers the lake divided into N number of sectors (21 sectors in the case of calculating cross sections and 22), bounded by vertical

sections, taken in vertical planes for successive sections at different levels of water in the lake.

Following the calculations appeared to offset observed between the capacity curve of 1984 and 2004, following the deposit of silt coming from the lake basin and thus decrease the total amount of accumulation.

Overall degree of alluvial accumulation show that if it takes into account the input of sediments expressed as annual average amount of solid flow in the period 1983-2004, from direct measurements Toplița hydrometric station ( $F = 213 \text{ km}$ ) located at the bottom of the lake and to transmit this value dam section ( $F = 275 \text{ km}$ ), located about 1 km upstream from the confluence with the river Govăjdia, we obtain a quantity of silt accumulation came into 1.14 million tons, for a solid multi-annual average flow  $Q_{(1984-2004)} = 1.57 \text{ km/s}$  and a specific solid rate of 1.8 tons / year at an average altitude of 726 m the basin.

It may be noted that the rate of reforestation of the basin is quite high for the transport of sediments contributed to the decrease of the slopes and stabilize their part.

***Relatively high values for the volume of sediments*** deposited from soil erosion and high action due to such factors as:

- changes in lake levels;
- waves formed by wind action on the surface of the lake;
- geological constitution of the slopes to the lake bottom;
- topographic profile of semi-permanent flooded river banks.

In the analysis performed was found that the accumulation volume Cinciș in 2004 was 27,204,050 m<sup>3</sup>.

Following the data analysis process the following conclusions can be drawn:

**a).** During the period 1984-2004, the lake Cinciș with a maximum total volume of 43.5 million meters of silt accumulated a total of approximately 1.79 million m which was made generally below the rate of 270 md M thalweg.

Of this amount, 370,950 m<sup>3</sup>, where the curve of capacity in 1964 was accurate, results from

abrasion slopes own accumulation. Assessment for any changes in the lake shores under the influence can be determined by comparing every lifting aero-photogrammetric made so many years.

**b)** The volume of silt deposited at the maximum volume of 43.5 reported mil.m<sup>3</sup>, gives a degree of clogging of 4.17% for a period of 21 years. This is explained by the geological structure formed by metamorphic rocks of the slopes for the most part, the nature of the terrain crossed by the river Cerna, sedimentary rocks (sandstone, limestone, sandy marl, quartz sand), the existence of dejection cones and level stabilized quite high for the afforestation in the upper basin for accumulation.

All these factors have led to low a transportation maintenance Cerna river sediments.

### ***The potential attractiveness of the landscape***

The many features of the landscape and its values of different categories of its forms offers a varied potential created and adapted rock-structure-relationship modeling agent. [3]

Thus, Cerna Basin is potentially a form of relief varied.

Geographical area where the lake is located Cinciș has housing opportunities between steep slopes and coastal fronts. In this rural area are distributed Cinciș, Toplița.

Structural areas that have a high degree of continuity, allow access to the interior mountain region, promoting tours, hiking in the mountains.

Morphographical features of relief in the area have real opportunities for recovery, established itself in this morphological areas forming large plains, looking for fields.

Morphological areas have entered into anthropogenic processing by human settlements, ways of communication, careers extraction, deforestation and land deeds which detail some parts of the relief, others were leveled, others removed.

Areas with very sharp gradients appear as unproductive land, less favorably in tourism, with a discontinuous distribution in its valleys: Cerna, Runcu Zlasti, Valeria.

On the slopes, floodplains and terraces where they occur, morphometric potential is vast, with a high degree of preference.

Streams generated by expansion processes have surfaces partially covered by vegetation, in the erosion processes which are most intense.

Another tourist attraction is the key aspect of deep valleys, enabling the amplification and evolution of heavy erosion and deep.

### ***The potential attractiveness of the lake***

Cinciş lake with a great landscape value, it was by itself as a tourist, so the base was equipped with tourism (accommodation, recreation, water sports).

Location of a relatively small distance from the surrounding urban centers, especially the city of Hunedoara, and favorite links by road upgraded, made the lake a goal sought for tourism Cinciş weekend.

Cinciş lake in summer becomes a real tourist oasis. The attractiveness of high Cinciş is given lake and water sports during the warm season and the possibilities of fishing.

## **CONCLUSIONS**

***Cinciş accumulation*** is located on the river Cerna, left tributary of the Mureş.

The importance of the work itself apparent purpose, flood mitigation, flood defense of the industrial and municipal power generation by installing a small hydro power, which is not polluted, improves oxygenation of the water.

***Thermal regime*** is influenced by the fact that water discharged downstream of the dam will have adequate depth of the lake temperature. Changes in water temperature downstream of the dam lake water temperature variation depends on offtake depth, higher in summer and lowest in winter.

***Cinciş accumulation*** has a positive impact on air quality also has positive effect in terms of ecological diversification due to terrestrial and aquatic fauna.

***Function of lake tourism*** remains very important Cinciş the possibilities to offer a beautiful landscape, recreation and leisure in sight a short distance from the center of Hunedoara populated and polluted.

Therefore, ***the storage area Cinciş configuration*** and environment presents a great interest in recreational and leisure travel.

***Environmental protection*** is a major problem of all world states, which are indispensable to addressing the future of mankind.

***Another aspect of anthropogenic influence on the bed of the lake*** is the lake water pollution. Discharges of wastewater in septic tanks fitted surface (without waterproofing) located too close to the shores of lake water quality degrades.

Lack of firm action to deter waste storage in inappropriate places by operators who work here, as well as individuals, leading to pollution and environmental degradation.

***In order to prevent pollution of lake basin and the banks*** would be appropriate to charge tourists a fee for cleaning up the land they inhabited.

Also ***in order to protect the lake basin*** could be prevented intensive fishing practice that many tourists fishing tourism which leads to reduction of fish species in the lake.

***The economic development*** of the area could set up a tourism, whereas the inhabitants of this part of the country have many resources.

***Future development of tourism in the area Cinciş-Cerna pursues several aspects:***

- upgrading and expanding tourist base materials, diversification and rise to the international standards of services in direct communication with the potential to be adopted to new trends (through upgrading of road infrastructure, a dense network of marked tourist paths);
- development of new forms of tourism-related traditional activities, rural tourism or recovery of surplus space and creating residences.

All this will help avoid congestion in the summer.

## **ACKNOWLEDGEMENTS**

Finally, last but not least I would like to thank everyone who gave me a helping hand in getting the data (Autonomous Regie

"Romanian Waters" - Tg. Mures, Hunedoara Forest, Hall Teliuc).

## REFERENCES

- [1] Gâștescu P., 1971., Lacurile din România, Limnologie Generală, Editura Academiei, București
- [2] Moraru T., Pișota I., Buta I., 1968, Hidrologia Generală, Editura Didactică și Pedagogică, București.
- [3] Surdeanu V., 1996, Geografia Terenurilor Degradate, Editura Presa Universitară Clujeană, Cluj Napoca.
- \*\*\* Geografia Apelor Române, Editura Științifică, București, 1972.
- \*\*\* Râurile României, Monografie Hidrologică, Institutul Național de Meteorologie și Hidrologie, București, 1998.
- \*\*\* Hunedoara, Editura Meridiane, București, 1981
- \*\*\* Monografia Hidrologică a Bazinului Mureș, 2006.

## ECONOMIC AND SOCIAL DEVELOPMENT IN RURAL COMMUNITIES IN CALARASI COUNTY, CASE-STUDY OF VILLAGE CUZA VODA

Radu Andrei IOVA<sup>1</sup>, Daniela CREȚU<sup>1</sup>, Dumitra CONSTANTIN<sup>2</sup>

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine, Calarasi Branch Romania,

Phone: +0740207985, Fax: + 0242332077, E-mail: danielacretu5@yahoo.com

<sup>2</sup>”Sandu Aldea” Agricultural College Calarasi, Prelungirea Bucuresti Street, no.4, Calarasi, Romania, telephone 0740236673, E-mail constantinmiti@yahoo.com

*Corresponding author:* andrei\_anglia@yahoo.com

### Abstract

*Social and economic problems that have affected mostly rural areas both argue the need to develop effective national policies of its development and the need to study social factors likely to enhance the community level development processes. The subject of today's rural community development has become a strategic priority for many national development policies. The great interest of many development projects to rural communities is determined not only by increased rural-urban disparities, but also the need to improve social factors in promoting citizen participation in community development process. However, while the development of rural communities is carried out based on imported models, anchored in the reality of villages without a prior study of the existing situation, it becomes imperative need for thorough investigations of community development from the perspective of social and economic factors that stimulate.*

**Keywords:** rural development, rural space.

### INTRODUCTION

Rural areas in Romania is a cardinal component of the overall evolution of the Romanian economy. Three rural resources need to give the true size of the restructuring of agriculture and rural development in our country: UAA (14.8 million ha), agricultural workforce (3.5 million) and total area of the countryside (90% of the country).

If these characteristics of rural Romania, adding that our country joined the EU relatively soon, is obvious throughout all areas need to soon become a modern economic and social system, and dynamic performance.

In this perspective rural Romania must adopt policies to include elements to accelerate the process to render, particularly in the regulation of property rights and guarantee this, but also in improving infrastructure and education on this specific segment.

In an indication of agricultural and rural policies, however, must proceed from the fact that agriculture is not only an economic sector producing goods and profits, but also

a way of life and the countryside is not only a place of production, but While an area of complex social and cultural implications on the overall status of a nation.

Under these conditions, this paper conducted a study on the impact of rural development programs on rural areas in view of theories, problematic interdependencies and constraints. Exigency finally insist on leaving the major strategy. It is important to establish the resources, needs, opportunities, menace, competitive advantages. Without a coherent strategy is lacking in funds, is wasting resources, especially time, time that flows devafoarea population living in rural areas.

### MATERIAL AND METHODS

To study the rural realities of Calarasi county were used three specific research methods:

1. dynamic economic analysis, deductive and quantitative;
2. SWOT analysis;
- 3.ancheta economic or participatory research that involves collecting information on the



ground using the research techniques "questionnaire" and "interview". The starting point for developing the county's strategy was to analyze the societal, economic and institutional aspects which led to the identification of key issues facing the county and its potential in order to establish a strategic direction that supports and is consistent with the purpose Development of the Strategy at regional level. The sustainable development strategy Cuza Voda village, were used the following sources of data and tools for getting information about the current status quo and the identification of local needs:

### 1. Cercetarea on documents

Were analyzed documents provided by the City village, Calarasi County Council, Department for Agriculture and Rural Development and other county public institutions, to achieve diagnostic analysis of the village, which included:

- data about the location of the village and its physical and geographical characteristics;
- statistics and census carried out locally, in the fields of demography, employment, economic environment, education and culture, environmental protection;
- specific statistics regarding the environment and agriculture, realize Quality of Life Research Institute for the project "Pollution Control in Agriculture";
- Urban Plan (PUG).

The strategy also correlates with the strategies and action plans at national, regional and county level.

### 2. Research field

The quantitative research was conducted during September-December 2010, based on semi-standardized questionnaire applied to the front, domicile and by interviewing subjects factors with administrative responsibilities, that:

- local councilors;
- local key actors (doctors, teachers, priests, representatives of cultural institutions, education, social assistance, Police);
- undertakings

The survey recorded the views and attitudes of people in communities Cuza Voda, Calarasi county, on:

-Satisfaction with life and local public services

-Living and migration

-Trust in institutions and citizen participation

-Perception of change and development potential of the village rural development

-Impact on quality of life in rural areas.

Questionnaire comprising 17 questions was applied to a number of 57 respondents in the village. The sample was selected with a statistical step eșationare based on electoral lists and Agricultural Register to municipalities in order to provide a representative sample in terms of age and income groups.

The results from the interpretation of this set of data have led to a research report. The data were used both in making diagnostic analysis and SWOT analysis to identify the elements and strands.

- Business Development;
- Human resource development;
- Local government development;
- Social services.

## RESULTS AND DISCUSSIONS

### 1. Characterization physical geography

Cuza Voda village, is situated in south-eastern Romanian Plain in the south of Calarasi county, the contact zone of the Southern Terrace Baraganului Calarasi. Cuza Voda village is situated in the west of the city of Calarasi at a distance of 10 km from the city of Slobozia, at a distance of about 50 km from Bucharest at a distance of 110 km.

Cuza Voda village has a total area of 13,400 ha. north, near the railway Bucharest - Constanta and to the south, the Danube, covers approximately 30 km long and from west to east in about 7 km. In this area, 240 ha are occupied by the hearth countryside.

Administrative territory of the Cuza - Voda (13,400 ha) is occupied as follows: arable land 12,200 ha, water surface 900 ha, forest 100 ha, live 121 ha, orchards 2 ha, pasture 1 ha. <sup>[4]</sup>

Cuza Voda village economic characteristic is the production of grain, combined with industrial crop, vegetable crop and livestock. After 1989, inhabitants, in addition to the work they carry out the land returned to the state, work in other sectors such as services, trade, clothing, transport.

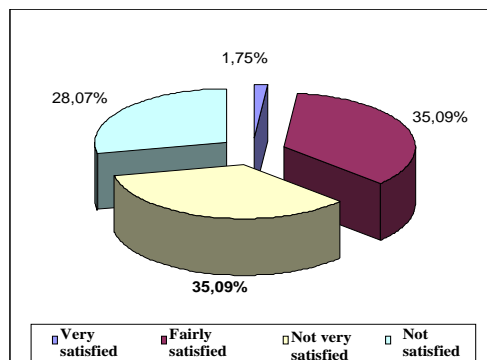
Cuza Voda municipality level are a total of 97 registered entities, of which only 20 companies engaged in the agriculture, 36 in the agriculture and industrial companies and 21 companies that conduct trade and services activities in the three villages<sup>[2]</sup>. The transition to market economy has completely changed the structure of agriculture both in terms of property by returning land to former owners and to the organization and its leadership. Mixed farms are composed of parts of both vegetal and animal activity and are more efficient and viable<sup>[1]</sup>.

Average number of household is 2.9 persons - representing the same value as the national average. Population distribution by sex shows little difference (49.1% men and 50.9% women) recorded significant differences by age. Over a third of the population is over 55 years, falling within the general trend of aging, specific rural area. The fertility rate is higher than the national average. The mortality rate is quite high.

Total number of employees is 1618, almost 75% of them are men. Unemployment rate (8%) is around the national average. Only one third of the employees wages, representing 30% of these people engaged in agricultural activities. Industry is also an important sector, covering a quarter of employees. Approximately 40% are employed in other economic sectors such as public administration, trade, transport, education<sup>[3]</sup>.

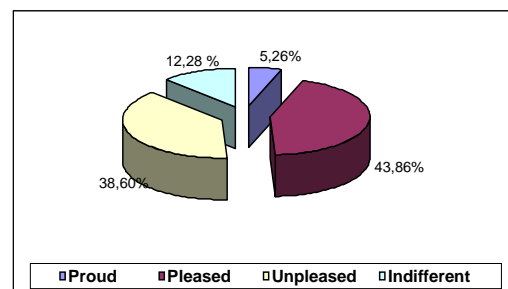
**2. Questionnaire results are summarized as follows:**

Question 1	a	b	c	d
How satisfied are generally the way you live?	Very satisfied	Fairly satisfied	Not very satisfied	Not satisfied
	1,75%	35,09%	35,09%	28,07



The number of people, quite satisfied, is equal to that of the “not too happy,, - 35.09%.

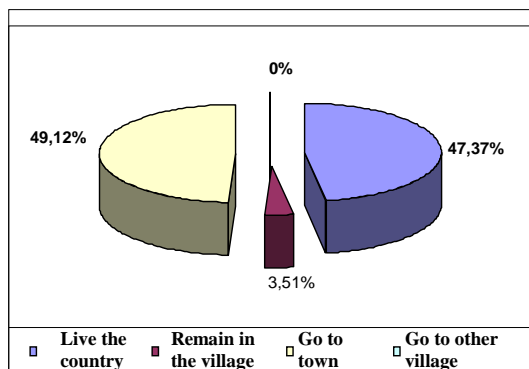
Question 2	a	b	c	d
When you think of the municipality where you live you can say that	Proud	Pleased	Unpleased	Indifferent
	5,26%	43,86%	38,60%	12,28%



Only 43.80% of the total subjects were satisfied with the municipality where they live.

Question 3. In the hierarchy of the operation of local public services, sewerage and roads in the village, along with medical care services are made notes of how these responsibilities. 13.96% before the public are satisfied with the roads leading to town water supply 14.16%, 11.09% of public lighting, 13.42% of health care, school and home culture 12.81% . Compared with roads only 9.54% are satisfied with the sewerage 5.42%, most believing that they need the most improvement.

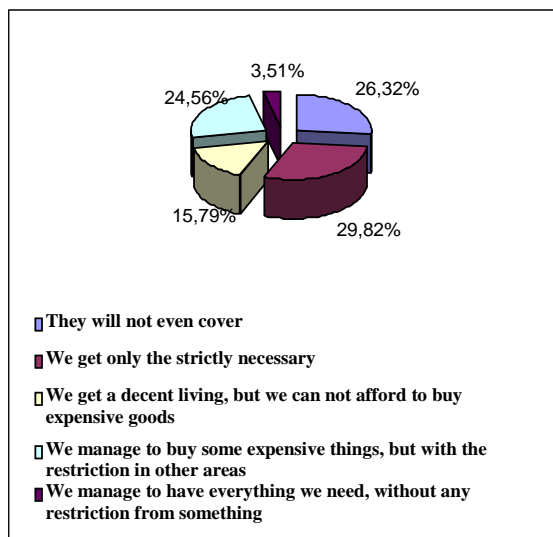
Question 4	a	b	c	d
Migration of young	Live the country	Remain in the village	Go to town	Go to other village
	47,37%	3,51%	49,12%	0%



Almost half of those polled - 49.12%, believes that young people are going to town  
**Question 6. Do you think your last child having to make a future in this village, another village in the city abroad?** 64.91% of respondents consider providing a better life for children is in town.

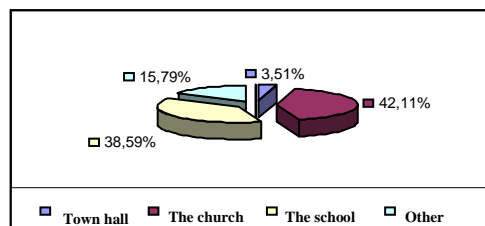
**Question 7. Do you have land?** Of all respondents, even if they live in rural areas, nearly half - 49.12% have no land, and those who owned land - 40.35% chose its lease.

**Question 8. Subjective appraisal of incomes.** The income level of rural inhabitants is low, reaching only the strictly necessary - 29.82%.



**Question 9. Sources of income.** Income population in the vast majority of respondents came from wages - 56.14%, income from agricultural production is almost nonexistent, 1.75%

Question 10	a	b	c	d
What is the institution that you trust?	Town hall	The church	The school	Other
	3,51%	42,11%	38,59%	15,79%



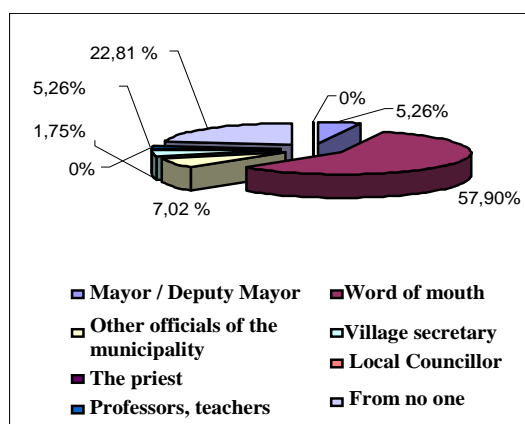
The institution in which citizens have the greatest trust of the village is the church - 42.11%.

**Question 11. What is the public person that you trust most?**

The priest is the person in public that the public trust most - 40,35%.

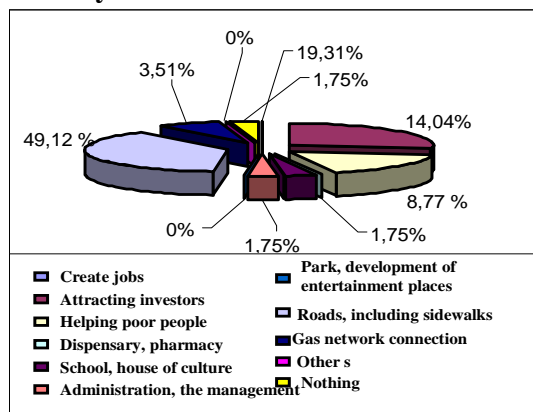
Question 12	a	b	c	d
How do you know about the programs and activities of City Hall?	Mayor / Deputy Mayor	Word of mouth of the municipality	Other officials of the municipality	Village secretary
	5,26%	57,90%	7,02%	5,26%

Question 12	e	f	g	h
How do you know about the programs and activities of City Hall?	The priest	Local Council or	Professors, teachers	From no one
	0%	0%	1,75%	22,81%



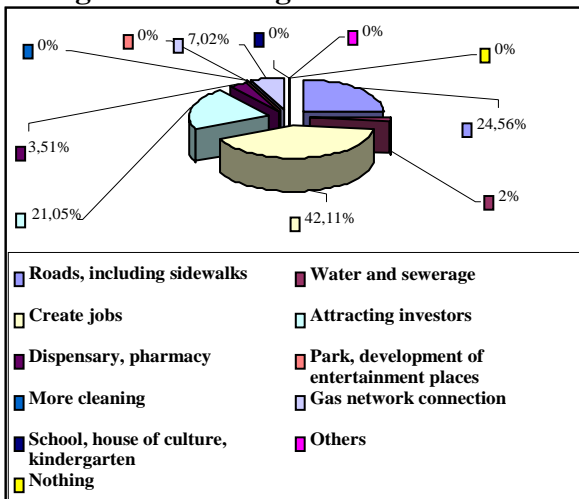
Hall activities are disseminated to the public, information is transmitted orally among villagers - 57.90%.

**Question 13. What would you change if you were mayor?**

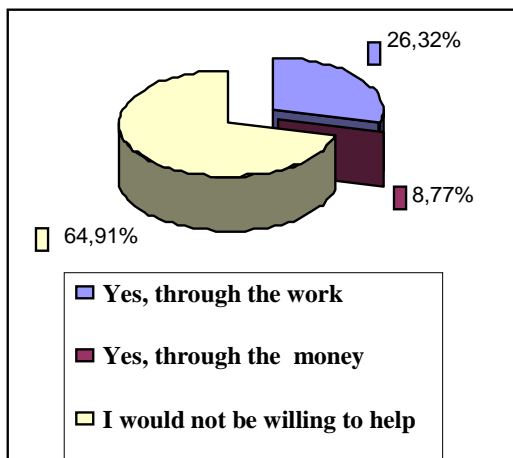


Providing new jobs for citizens of the village is the main desire of respondents - 49.12%

**Question 14. What do you think should be changed in the village**



People's desires about creating jobs - 42.11%, only in this way their standard of living will increase.



Questions 16 and 17 refer to the education and age of respondent

Educational level of preparation of respondents is high, 38.60% of them have high school and 17.54% are university graduates.

Of those who attended 40.35% are aged between 18-34 years, 38.6% were aged 35-59 years and 21.05% fall in the age group over 60 years.

**CONCLUSIONS**

1. In Following meetings with administrative responsibilities and the

process of questioning the inhabitants believe that active and continuous involvement in local socio-economic development of municipalities will increase gradually, with the realization that every villager should be actively involved in community development of the locality in which they live.

2. For economic development of the village over the next 10 years are taken into account these strategic directions of development:

- I. Developing and upgrading physical infrastructure
  - II. Agricultural development
  - III. Tourism potential
  - IV. Development and diversification
- Creating the infrastructure for business

3. Impact expected from implementation of the strategy aims to:

- professionalization of farmers;
- lowering the average age of employed rural population;
- equal opportunities between women and men
- expansion of consulting the population profile and awareness of their necessity;
- emergence of new jobs, stable unemployment rate implicit in the countryside;
- reduction and / or avoid the risk of depopulation;
- improve services will increase awareness of rural civilization;
- increase income and quality of life in rural communities;
- renovation of villages and the potential of natural, cultural and historical;
- Awareness, education and empowerment of rural population to the importance of environmental quality;
- real opportunities for the emergence of new activities;
- increase awareness and information quality by diversifying access roads;
- development of farm, forestry and fishery modern, efficient, sustainable, in line with Community standards;
- establishment and / or rehabilitation of rural infrastructure;

- reduction and / or eliminate the disparities between rural and urban areas.

4. The strategy of Cuza Voda municipality will be based, in terms of implementation, a project to streamline the local public administration act, through the implementation and use of the institution's management principles and specific mechanisms Hall project management .

Project management of the village will allow public administration to develop skills to identify, develop and implement projects under its responsibility and, according to local development strategy undertaken by the identification stage, design and planning to the evaluation of the results.

To ensure that work is proceeding as planned and within budget.

## **REFERENCES**

- [1] \*\*\* Calarasi Statistical Yearbook - 2010 edition
- [2] \*\*\* General Urban Plan of the village Cuza Voda
- [3] \*\*\* Statistical data from the Chamber of Commerce and Industry and the County Training and Employment Agency of Employment
- [4] \*\*\* Statistical data from the Agricultural and Rural Development

## CAPITALIZATION OF TOURISM POTENTIAL, IN PROTECTED AREAS IN CALARASI COUNTY

Radu Andrei IOVA<sup>1</sup>, Daniela CREȚU<sup>1</sup>, Dumitra CONSTANTIN<sup>2</sup>

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine, Bucharest, Romania, phone: + 0740450506 e-mail : danielacretu5@yahoo.com

<sup>2</sup>"Sandu Aldea" Agricultural College Calarasi, Prelungirea Bucuresti Street, no.4, Calarasi, Romania, telephone 0740236673, E-mail constantinmiti@yahoo.com

*Corresponding author:* andrei\_anglia@yahoo.com

### Abstract

*Areas protected by their natural value and the low level of human intervention in their territory, are the best examples and models and semi-natural ecological systems. In Europe, Romania has the most diverse and valuable natural heritage, the area of protected natural areas of national interest, reported the country's surface is 7%. Natura 2000 European Ecological Network offers numerous tools and extension inclusion and management of protected areas in Romania, is an important step towards the landscape and biodiversity conservation. In other words, in terms of natural background, the network serves both the interests of Romania and the European Union.*

**Keywords:** natural habitats, tourism, biodiversity, protected areas, the european ecological network

### INTRODUCTION

Protected areas are still perceived by many people but in their meaning "conservationist" and are considered true "oasis" of wildlife to be protected only for conservation of species that inhabit it. Very little is acknowledged that areas under semi-natural and is in fact support the "life" and thus the socio-economic development. County of the least known natural wealth can become a magnet for tourism.

### MATERIAL AND METHODS

Calarasi touring presence in the pages of Romania's Guide comes as a confirmation of its tourist potential. The existence of archaeological remains, the natural reserves, the wealth of architectural heritage in the context of current trends of socio-economic, strategic positioning along the Danube, making it an area of great importance in the national landscape, with strong roots, and dynamic presence extraordinary growth prospects.

In Calarasi county there are six natural areas protected by law for the fauna and flora living in the areas of rare plant and animal

species and species placed under special protection. Tourism potential, Calarasi County, is underutilized at less than 130 km from Bucharest and around 100 km from Constanta and Black Sea.

The study aims to identify, in the Calarasi county, the potential for tourism development, which is aimed at those who wish to visit the existing nature reserves, biotope and for those interested in the Danube.

### RESULTS AND DISCUSSIONS

In Europe, Romania has the most diverse and valuable natural heritage, the area of protected natural areas of national interest, reported the country's surface is 7%. The categories of protected natural areas (Table 1) are of national interest (scientific reserves, national parks, natural monuments, nature reserves and natural parks) international interest (natural sites of universal natural heritage, geoparks, wetlands of international importance, Biosphere Reserves) and sites of Community interest, Natura 2000 "sites of Community importance (Table 2), Special Areas of Conservation, Bird protection areas

(Table 3), county or local interest: determined solely on public / private administrative - territorial units, as appropriate.

**Table 1 – NATURAL AREAS PROTECTED IN REGION 3 SOUTH MUNTENIA [1]**

REGION 3 SOUTH MUNTENIA	Number	Area- ha
County Argeş	32	32613,73
<b>County Călăraşi</b>	<b>5</b>	<b>3224,3</b>
County Damboviţa	13	18228,93
County Giurgiu	6	27561,5
County Ialomiţa	4	221
County Prahova	7	13325,04
County Teleorman	5	1782
Total	72	96956,5

**Table 2 -SCI – SITES OF COMMUNITY IMPORTANCE (Order 1964/2007) [3]**

REGION 3 SOUTH MUNTENIA	Number	Area -ha
County Argeş	5	127281,2
<b>County Călăraşi</b>	<b>2</b>	<b>18967,28</b>
County Damboviţa	4	20352,35
County Giurgiu	3	33902,1
County Ialomiţa	1	6627
County Prahova	5	24024,8
County Teleorman	2	7389,93
Total	22	238544,66

**Table 3 - BPS - BIRD PROTECTION SITES (reported by GD 1284/2007) [2]**

REGION 3 SOUTH MUNTENIA	Number	Area -ha
Judeţul Argeş	1	2180,7
<b>Judeţul Călăraşi*</b>	<b>6</b>	<b>37134,28</b>
Judeţul Giurgiu	3	41212,2
Judeţul Ialomiţa	7	20124
Judeţul Teleorman	3	35708,7
Total	20	136359,88

Note: \* SPA Danube Oltenita ranges whereas the number in the county of suparafaţa in this county is higher (93.9%)

Natura 2000 European Ecological Network offers numerous tools and extension inclusion and management of protected areas in Romania, is an important step towards the landscape and biodiversity conservation. In other words, in terms of natural background, the network serves both the interests of Romania and the European Union. It is a system of nature protection, protection that does not necessarily mean "limitations and restrictions. Nature 2000 allows both preservation and further development of biodiversity in Romania. Thus, we see opportunities in many directions: from sustainable tourism, a

combination of farming and nature protection alternatives. Establishment of Natura 2000 is "Community foundation of nature conservation policy." All countries that joined the European Union or aspire to membership issues facing the Natura 2000 network and the need to adopt the Birds Directive - 79/409/EEC and Habitats Directive - 92/43/EEC. Each Member State may choose its own mechanisms to engage in this collective effort. Natura 2000 is a step in the foundation of nature conservation policy in the European Union. Natura 2000 network consists of:

- SAC (Special Areas for Conservation) designated for: Natural Habitats (198 listed in the Habitats Directive), species of flora and fauna (over 800 listed in the Habitats Directive);

- SPA (Special Protection Areas - Areas of Special Protection Bird) designated for species of birds (about 200 under the Birds Directive);

- SCI (Sites of Community Importance) is a site which, in the biogeographic region or regions to which it belongs, contributes significantly to the maintenance or restoration of habitat or species at an appropriate stage conservation and at the same time, the coherence of Natura 2000 and / or maintaining biological diversity biogeographic region or regions concerned.

Natura 2000 sites should include human activities that are compatible with conservation goals, and people need to understand, through their experience, why a particular site deserves to be protected. Natura 2000 objectives are:

- halting biodiversity decline by long-term conservation of the most valuable species and habitats of Community interest;  
- protecting Europe's biodiversity;  
- promoting economic benefits.

The advantages are:

- economic activities can continue in a Natura 2000 site, provided to avoid activities that could affect the site-specific species or habitats;

- are recognized and protected the interests of local people - Natura 2000 does not mean the disposal of land, but to preserve the

traditional agro-pastoral practices which do not harm existing heritage forest;

- development of tourism and agro-tourism, local labeling of natural products that may become recognized brands, preferred artificial preparations;

- the possibility of attracting European funds
- employment;

- relaxation and leisure;

- promotion of natural and cultural heritage;

The status of Natura 2000 site is a successful European image and recognition, which is a source of pride for locals, it creates a chain of places in Europe with a nature that deserves kept in good condition because it has a lot to offer and future generations.

To declare a site "Natura 2000", taking into account the site's natural characteristics, economic interests, cultural, social and economic activities are allowed in support of sustainable development and does not affect the favorable conservation status of the site concerned.

Select a region of "Natura 2000" means acknowledging the importance of the European area, is a source of pride for locals, but they can also provide significant economic opportunities.

In Calarasi county there are six protected areas. These are: Reserve Ciornuleasa forest, birds and fauna Iezer Natural Reserve - Calarasi Nature Reserve Ostrovul Falcon, Haralambos Ostrovul Nature Reserve, Nature Reserve and Nature Reserve Ostrovul Ciocanesti Ciocanesti AIA.<sup>[1]</sup>

Ciornuleasa Forest Reserve. The attention and care in Calarasi county forest and fauna is rich in species represented in our valuable forests hunting: deer, deer and wild boar, which enhance the value and beauty ecosystem of forest. On an area of 73.2 ha is forest reserve Ciornuleasa where vegetate ash (*Fraxinus excelsior*) and gray oak (*Quercus pedunculiflora*), specimens of these species having more than 120 years of age.

Among herbaceous species can be sourced here *Symphytum officinale*, *Adonis vernalis*, *Stipa pinnate*, *Anemone silvestris*, *Echium rubrum*. On an area of 19,1 hectares

is a nature reserve of gray oak, the age of 66 years.

Ciornuleasa Forest is forest reserve Mostiștea Baragan, a unique type of forest species richness in space Baraganului by tree vegetation and the existing valuable hunting here (rabbit, boar, deer, pheasants). Forest is an attraction for hunters. Ciornuleasa hunting forest and nature reserve, founded in 1954, protects a lowland forest type highway with many southern elements, made of oak, gray oak, hornbeam, Carpini, lime, ash fluffy Turkish cherry, elm, etc. Reserve Unit is part of the Forest Products Ciornuleasa Mitreni VIII, Calarasi Forestry Department, as state property. Gateway to the reserve is a county road Monastery - Soldanu - Luica.

Falcon Ostrovul Nature Reserve covers an area of 20,1 ha and is located on the Danube, from km 350, near Dichiseni. Part of the Production Unit of Forestry III Dervent Calarasi.

Harlambie Ostrovul Nature Reserve covers an area of 44,9 hectares and has a length of 500 meters. It is located on the Danube, from km 400, and part of the Production Unit of Forestry and the Danube Calarasi.

Ciocanesti Ostrovul Nature Reserve covers an area of 206,7 ha and has a length of 300 m. It is located on the Danube, 395 km and is part of the Production Unit of Forestry and the Danube Calarasi. Islets freshwater habitats with vegetation and fauna species protected under the Convention in Bonn, Bern and CITES and the Habitats and Birds Directives.

**Table 4- Key islets like sites - Natura 2000[2]**

Island	Km	Area	SPA (H.G. 1284 of 24 october 2007)
Albina	410	58,6 ha	Dunăre Oltenița
Haralambie	400	44,9 ha	-
Ciocănești	395	206,7 ha	Ciocănești Dunăre
Trămșani/Pisica	365	29,2 ha	Dunăre Ostroave
Șoimu	353	20,1 ha	Dunăre Ostroave
Turcescu	344-342	156 ha	Dunăre Ostroave
Cianu Nou	342	48,1 ha	Dunăre Ostroave
Fermecatu	324-322	187,8 ha	Dunăre Ostroave



**Table 5- Key islets like sites - Natura 2000 [3]**

Island	SCI (O.M. 1964 of 13 december 2007)	Nature Reserves (H.G. 2151 of 30 november 2004)
Albina	Oltenița-Mostiștea –Chiciu	
Haralambie	Oltenița-Mostiștea –Chiciu	+
Ciocănești	Oltenița-Mostiștea –Chiciu	+
Trâmșani/Pisica	Canaralele Dunării	
Șoimu	Canaralele Dunării	+
Turcescu	Canaralele Dunării	
Cianu Nou	Canaralele Dunării	
Fermecat	Canaralele Dunării	

Natural Reserve Iezer birds and fauna - Calarasi. Of Meadow Lakes, numerous other times, the northern part of Marsh Calarasi, the deepest region of the tank is the former lake Calarasi - Calarasi Iezer. On 31 May 2001 between EPA and SC Calarasi Piscicola S.A. occurred on the protection and conservation agreement in the present avifauna Iezer - Călărași. În 30 October 2001, in Case nr.58/26.10.2001 Calarasi County Council, establishes the system of protection and conservation of avifauna Iezer Calarasi area. This decision has been taken having regard to the value of biological diversity, conservation of birds of one side and the other part of their living environment, given the present species of migratory birds, birds of passage and sedentary. They are present across species of birds protected by international conventions. Reserve has an area of 2877 hectares, of which body of water and 530 ha of agricultural land, ditches, pastures, roads, dams 2347 ha. It is located in the Danube and the administration of village and town Calarasi Cuza Voda, with state ownership and private. Access roads to the reserve are the national road (DN 3A), county and local road way.

AIA Ciocanesti Nature Reserve. It covers an area of 230 ha and is located in the village Ciocanesti. The reserve can be reached on Calarasi county road - Monastery. He was recognized as a protected natural area due to wild birds that live here.

## CONCLUSIONS

1. In practice there is international tourism is a growing interest for potential consumers of tourism for visiting protected areas. This

trend is substantiated by scientific value, originality, the unique character of these areas housed sightseeing plus tourists need to spend a large part of the holidays in terms of nature unspoiled, unpolluted.

2. Natural conservation of protected natural areas are those whose aims are the protection and preservation of important natural habitats and species. In addition to scientific activities, if any, may be admitted tourist activities, educational events.

3. All these nature reserves, in addition to the scientific importance, can acquire, over time, and an obvious practical value.

4. Conservation of flora and fauna representative of the tourism offer biocoenosis will enrich the palette, that rural tourism can develop in the area.

5. With the existence of the six protected areas in the county is having the choice and implementation of best development projects and tourism recovery following the opportunity and feasibility studies and environmental impact;

6. Tourism activities in protected areas in the Calarasi county can take different forms, specific and complex, raising issues related to tourism planning as protection and preservation of ecosystems, as well as general infrastructure development, equipment and accommodation facilities for recreation and tourism.

7. We need a policy design and implementation of specific marketing and promotion of protected areas in the county of protected areas very poorly known.

## REFERENCES

- [1]\*\*\* Statistics Calarasi County Agency for Environmental Protection
- [2] \*\*\* H.G. nr.1284/2007 declaring Bird special protection areas as part of the Natura 2000 European ecological network Romania;
- [3]\*\*\* Nr.1964 Order of 13 December 2007 on the creation of the protected natural area
- [4] \*\*\* Development Strategy Calarasi county -2007-2013

## IMPORTANCE OF THE PHYSICAL INFRASTRUCTURE FOR THE DEVELOPMENT OF RURAL AREAS IN THE UPPER DANUBE REGION

Marko JELOČNIK<sup>1</sup>, Velibor POTREBIĆ<sup>1</sup>, Zoran NJEHOVAN<sup>2</sup>

<sup>1</sup> Institute of Agricultural Economics, Belgrade  
15 Volgina street, 11060 Belgrade, Serbia, Phone: +381 64 66 88 357  
Fax: +381 11 2972 858, E-mail: [marko\\_j@mail.iep.bg.ac.rs](mailto:marko_j@mail.iep.bg.ac.rs), [cipomarket@yahoo.com](mailto:cipomarket@yahoo.com)

<sup>2</sup> Faculty of Agriculture Novi Sad  
Dositej Obradovic square no. 8, 21000 Novi Sad, Serbia  
E-mail: [njegovan@polj.uns.ac.rs](mailto:njegovan@polj.uns.ac.rs)

**Corresponding author:** [marko\\_j@mail.iep.bg.ac.rs](mailto:marko_j@mail.iep.bg.ac.rs)

### Abstract

*During the December 2010, the European Commission established the EU Strategy for the Danube Region, Strategy that targets macro-region consisted of parts of 8 EU and 6 non-EU countries (including Serbia). Expected start of the Document implementation is April 2011. Also, according to the fact that Republic of Serbia is mostly agrarian country, where rural areas dominate, and agriculture represents substantial component of economic development, and since some of identified issues in mentioned Strategy are transportation, communication, energy and environmental problems, there is a need for presentation of general conditions of physical infrastructure facilities in the rural areas of Upper Danube zone in Serbia (primarily on the territory of Bač and Apatin municipalities). As it is known, development of certain rural regions is represented in rising of life standard quality of local population, what implies modern, reliable and well spatially projected physical infrastructure elements with adequate capacity. Complete insight into the current state of infrastructural elements could improve cooperation between territories connected by Danube River, and could also influence equalization of uneven socio-economic development of mentioned areas. From the standpoint of Serbia, through the timely prepared infrastructural projects, local authorities from the observed zone could easier reach future EU pre-accession funds for the rural development.*

**Key words:** rural development, physical infrastructure, Upper Danube region, Serbia.

### INTRODUCTION

The Danube Region is one of the most important areas in Europe, covering several Member States and non-EU countries in the river basin. The complete area can be considered to be 800,000 km<sup>2</sup>, with a population over 100 million. During 2010, the European Commission established the EU Strategy for the Danube Region. Issues of interested within the Region are economic and social disparities, infrastructure deficiencies, environmental status, prevention against natural risks, etc. Strategy is under the EU 2020 framework and in line with the adopted Lisbon Treaty.<sup>1</sup> [1]

Danube River runs through Serbia with 588 km. It is completely navigable and represents natural border with Croatia and Romania. Except two largest cities, Belgrade and Novi Sad, it connects many smaller cities and municipalities within

Serbia. Region includes two large (Sava and Tisa) and few smaller tributaries, as well as national parks Fruška Gora and Đerdap. [11]

Like in complete Republic, Danube basin in Serbia considered mostly rural areas, where agriculture is dominant economy activity within local population. One cannot argue the fact that in these areas there are real employment possibilities for many unemployed persons, considering that investments in rural areas are more than justified (territories in which the minimum investment can achieve the maximum effect of employment). That can initiate not only the development of certain rural areas, but would affect the balanced development of all areas within the Republic, with the development of both the agricultural production and other economic activities (tourism, transportation, trade, catering, etc.). [7]

This is why national agencies and local governments by series of established strategic documents on Republic and local level actively

<sup>1</sup> In brief it states that the EU shall promote economic, social and territorial cohesion, and solidarity among Member States.

work on harmonization of planned and implemented project activities, as like supporting legislation, recognized by the EU Commission as vital for the Danube Region. Among national strategic documents that are related to observed territory stands out: *Spatial development strategy of the Republic of Serbia 2009-2013-2020*; *National program for rural development 2011–2013*; *Republic of Serbia water resources development master plan*; *Strategy of railway, road, inland waterway, air and intermodal transport development in the Republic of Serbia for 2008-2015*; *Tourism development strategy of Republic of Serbia*; *Master plan and feasibility studies - inland waterway transports – Serbia*; *Study of the network of marinas on the Danube in AP Vojvodina*; *Tourist destination of Upper Danube master plan*, *Tourist destination of Lower Danube master plan*, etc.

Among specific issues within EU Strategy for the Danube Region are: environment protection, water resources preservation, prevention against natural risks, reinforcement of socio-economic, human and institutional development, as well as improvement of connectivity and communication systems (within and outside the Region), intermodal nodes, energy systems, increase of renewable and clean energy usage, information society, etc.

Realization of most issues will greatly improve current living conditions in rural areas for local population. Danube Region in Serbia is divided into two parts, Upper and Lower zone. Zone of Upper Danube region is settled in AP Vojvodina. It covers area of 1,528 km<sup>2</sup> with local centres, Sombor city and municipalities of Apatin and Bač.

In paper focus will be state of physical infrastructure on the territory of municipalities Apatin and Bač, and its influence on local economy development. From the standpoint of Serbia, as well as zone of Upper Danube region, through timely prepared infrastructural projects, local authorities could easier reach future EU pre-accession funds established for the development of certain elements within rural areas.

## MATERIAL AND METHODS

Research was based on available data resources, primarily on the official data of the Statistical Office of the Republic and documents under titles

*Strategy of sustainable development of the municipality Apatin* (for period 2009-2019) and *Strategy of socio-economic development of the municipality Bač* (for period 2009-2014) which are created by the expert team, mostly composed with researchers from Institute of Agricultural Economics Belgrade, Serbia. Having in focus researching goal, data analysis is based on standard statistical-mathematical indicators and method applied was “desktop study”.

## RESULTS AND DISCUSSION

Modern agricultural production presumes multifunctionality, where agricultural resources are not used only for food production, but also for other purposes (energy production, growing of medicinal plants, hunting, fishing, tourism, etc.). Besides that, residents of rural areas nowadays require satisfactory life quality that implies the existence and adequate functioning of all elements of physical infrastructure (transportation and telecommunications, energetics, public utilities – water supply and sewerage system).

### *Transportation*

Natural predispositions of Apatin and Bač municipalities observed from spatial and physically-geographical level, as present terrain configuration, indicate that they have relatively suitable traffic, communicative and strategic position (border municipalities; nearness and potentially easy access to Pan-European corridors X and Vc, and through them to transport infrastructure of neighbouring countries – Croatia and Hungary, or other European countries; they rely on Pan-European corridor VII – Danube river) and much bigger potential in compare to so far used. [9], [10]

#### *a) Condition of road network*

Road network within the territory of Bač and Apatin municipalities is consisted of state and municipal roads. Connection of municipalities with the close and far surrounding, primarily with the network of Trans-European highways, is realized by the major road M-18: Sombor-Bač-Bačka Palanka and regional roads R-102: Bačko Novo Selo-Bač-Novi Sad; R-101: Apatin-Sombor-Bogojevo (border with Croatia). Road network capacity is given by the Table 1. According to the indicator, density of road network, Bač (0.28

km/km<sup>2</sup>) and Apatin (0.19 km/km<sup>2</sup>) are far behind the Republican average, 0.43 km/km<sup>2</sup>.

Table 1. Comparative structure of road network

Area	Σ	Modern carriage way	Major roads		Regional roads	
			Σ	Modern carriage way	Σ	Modern carriage way
Serbia	38,436	24,531	4,759	4,752	10,448	9,039
Vojvodina	5,892	5,224	1,530	1,527	1,799	1,770
Apatin	65	56	0	0	31	31
Bač	104	90	7	7	23	23

Source: Statistical Office of the Republic of Serbia, Belgrade, Serbia, *Municipalities in Serbia*, 2008.

There is an objective need for the broadening of existing road network and improvement of its spatial layout, in order to better connect all settlements with the municipal centres (more efficient connection of all economic activities and settlements in one functional entirety). Aggravating circumstance could be the lack of financial assets of local governments, as well as material limitation on Republic level for larger investment in reconstruction of present and building of new roads. Influence of neglected road infrastructure is the most obvious on the example of agriculture and tourism (purchased agricultural products often lose on quality due to bad transport conditions, while local touristic development largely depends on the roads quality and easiness of access to tourist attractions).

#### b) Condition of waterways network

Waterway of the Danube River is defined as the Pan-European Corridor VII, natural route that connects 10 European countries, and which is integral part of the Trans-European navigable main trajectory Rhine-Main-Danube, with a total length of 3,505 km. On the Danube are positioned 44 international ports, while on the section of 588 km that pass through Republic of Serbia is built 9 harbours. On the territory of AP Vojvodina, between the rivers Danube and Tisza, as well as Begej and Tamiš, on approximately 12,700 km<sup>2</sup> outspreads channel system Danube-Tisa-Danube. The total length of all channels is 929 km, and they are designed for the ships with smaller tonnage. Channel system includes fourteen smaller port complexes.

Water transport within the Bač and Apatin municipalities is present through the Danube River and the DTD Canal (channel routs Karavukovo - Bački Petrovac and Beždan - Prigrevica). More active development of economy and nautical

tourism along the Danube coast is unimaginable without port complex for the reception of touristic and private vessels, with all accompanying facilities and infrastructure. Perfect location on the territory of Bač municipality for port building is in Bačko Novo Selo, while in Apatin municipality is expected reconstruction of the pier at the location of the Danube offshoot, as well as relocation of cargo port into the zone of freight-transport centre. Besides that, Development strategy of the nautical capacities on the Pan-European Corridor VII presumes building of the smaller capacity marina on the course of the Danube River in the western part of Apatin, as the construction of the ferry terminal Bač (Bučkovac - Plavna) - Vukovar (Croatia) for the transfer of people and vehicles.

#### c) Condition of railway network

On the territory of AP Vojvodina around 712 km of railroads meets all standards of passenger and freight transportation, while only about 30% of railways are electrified. Through its territory are passing three major European railways:

- Budapest – Subotica - Novi Sad –Belgrade - Niš, with a prong Niš – Skopje – Thessaloniki - Athens (E-85);
- Paris – Milan – Trieste – Ljubljana – Zagreb – Belgrade – Niš – Sofia – Istanbul (E-70), and
- Belgrade – Vršac - Timisoara (E-66).

For the Bač municipality of particular importance is the railroad Odžaci – Karavukovo - Bač, one-track non-electrified railroad for goods transportation, with only one station. For the Apatin municipality of particular importance is the railroad Apatin - Sombor, one-track non-electrified railroad for freight transportation with 4 stations on it. Both municipalities have recognized the future of railways in the revitalization and modernization of existing rail directions (that will enable connection with the rail Corridor X), as in the development of cargo terminals and industrial sidings.

#### d) Condition of air traffic

Considering that air traffic is defined as the economically most expensive way of people and goods transportation, on the territories of Bač and Apatin municipalities there is no real need for organization of this kind of traffic. Passengers and goods are usually directed to the Belgrade airport.

### Energetics

#### a) Heating

In observed municipalities there is no system for remote central heating. Households and companies are solving this issue by the use of electric energy, gas or solid fuel. Some public institutions, business and individual buildings have individual boiler for central heating.

#### *b) Electrical energy*

Among the transformed forms of energy the most presented is electrical energy. Its distributor for the territory of AP Vojvodina is PE *Elektrovojdina* Novi Sad, which takes electrical energy from unique Republic power system, operated by the PE Electric Power Industry of Serbia. Final distribution of electric energy to consumers is done in two ways, through 10 electric distribution companies that are part of PE *Elektrovojdina* or by direct supply of the largest industrial users by PE *Elektrovojdina*. Distribution of electric power on the territory of Bač and Apatin municipalities is under the jurisdiction of Sombor electric distribution company.

Supply of electric power within the AP Vojvodina is through 220 kV and 110 kV electric networks, over 58 substations, with total length of power lines of 24,015 km, total installed power of 8.526 MW and 9,612 transformers.

Consumers supply with electric power on the area of the Bač and Apatin municipalities is done by medium-voltage (transmission) electric network (20 kV) and low-voltage (0.4 kV) electric network with associated substations (20/0.4 kV). As the present electric grid is under the constant pressure of growing consumption, the problem represents inadequate capacities and poor technical characteristics of power lines and distributive substations. Although primary and secondary network cover the municipalities area quite well, there are real needs of reconstruction of low-voltage electric network, as it is mostly over ground.

#### *c) Gas pipeline*

Within the territory of AP Vojvodina around 1,560 km of gas pipeline network is stretched out. Supplier of all potential consumers with natural gas is PE *NIS-Gas*, Novi Sad. Distribution of gas to the large consumers (industry and communal energetics) is through the route of high-pressure gas pipeline with direct supply. Other consumers are supplied by the 32 independent distribution companies.

On the territory of Bač municipality there is no gas pipeline infrastructure (gas pipeline network). Momentarily, technical documentation for the municipality gasification is in the process of establishment. On the other side, area of Apatin municipality possesses the complex of master gas station. Total length of gas pipeline network is around 85 km, of which distribution network under medium-pressure takes 30 km. For now, gas is provided only in the city core. Meanwhile, local authorities and PE *Srbijagas* were signed a contract about gasification of all settlements within the territory of municipality.

#### *Telecommunications*

Today, imperative of some region development, as indicator of better life standard of local population, is pictured with good spatially projected, by capacity sufficient, modern and reliable telecommunication infrastructure.

#### *a) Fixed telephony and post offices*

Performer of all construction works and owner of all facilities related to the system of fixed telephony, on the territory of the Republic of Serbia, is PE *Telekom Srbija* A.D. In the municipality of Bač there are 6 digital telephone switchboards with maximal capacity from 6,600 telephone connections. Primary network, between settlements is mostly underground (optical cables), while the secondary network, within the settlements, is usually over ground (on wooden poles), with unsatisfactory capacity and quality. On the territory of the Apatin municipality there are 5 digital telephone switchboards with maximal capacity from 11,880 telephone connections. Trough the city core of Apatin is passing a mayor regional optical cable Sombor – Apatin - Sonta. Telecommunication network is mostly underground, and smaller part is over ground (mostly in rural and poorly populated areas of the municipality).

According the data of Statistical Office of the Republic of Serbia, current density of TT network (number of telephone lines per 100 inhabitants) is: 60.4 on the territory of Bač municipality, 37.4 on the territory of Apatin municipality, or 38.5 on the territory of Serbia and 37.9 on the territory of AP Vojvodina.

Based on available data of PE *PTT Communications Serbia*, on the territory of Bač municipality are 6 post offices with 9 post windows, while on the territory of Apatin

municipality are 5 post offices with 11 post windows. Current spatial distribution of the post offices, their number, assortment and quality of services, fits to the present concentration and needs of local population.

#### *b) Mobile telephony*

According to available data within the observed municipalities all operators that are operating in the Republic are present (*Telekom Srbija A.D.*, *Telenor* and *VIP Mobile*). Base stations-aerials which are built and mobile telephone signal, for a majority of population who are living into the remote hamlets (where system of fixed telephony has not established yet, or it is with prominently bad technical characteristics) is often, only one telecommunication frame. Coverage of the territory by the signal of mentioned operators is generally satisfactory. Usual complaints are on strength of available signal in certain locations, as well on overlapping of signal of local operators with the signal of operators from the neighbouring Croatia within the border settlements.

#### *c) Internet*

Having in focus basic IT infrastructure, observed region is in national average. In municipalities exists sufficient number of internet providers. Most often are offered services of dial-up, ADSL and wireless internet. On the territory of Bač is not registered any computer school, while in Apatin are registered two computer schools. This fact could be important as an indicator of practical eradication of computer illiteracy within the local population.

### **Water system and sewage**

#### *a) Water supply*

On the territory of Bač municipality organized supply with drinking water is through the local water supply systems within all settlements that are under supervision of the local communal company. Similar situation is also in the municipality of Apatin, where water supply is organized both by city water system (it gradually takes over the main role in water supply within all settlements in the municipality) and local water supply systems in certain settlements.

In both municipalities quality of used ground water usually does not meet the standards for drinking water quality, so raw water is directly processed at the spring. Although the water supply networks are well developed, with capacities that could stand the

pressure of potentially new users, specific problem is presented by smaller sections with asbestos pipes. Supply of all settlements with drinking water is satisfactory. Establishment of regional water supply system is planned (Bačka regional system). By focusing on the percentage of households connected to the public water system, it could be noticed that Apatin (88%) is in much better position than the Republic level (79%). On other hand, value of this indicator for the Bač municipality (75%) is equal to the Republic level. AP Vojvodina has the highest value for this indicator, 93%.

#### *b) Channelling liquid waste*

On the territory of Bač municipality channelling of liquid waste is not on satisfactory level. So, except city core, sewage system does not cover any other settlement (disposal of liquid waste is usually done through the septic tanks) what directly threatens environment and health of local population.

Until now, the best solution would be that touristic localities and weekend cottage zones can solve the wastewater problem by establishment of mini-facilities for biological treatment. In the municipality of Apatin, existing facility for biological treatment of wastewater has lost its function with the growth of hydraulic and biological burden. It is planned building of new complex for the treatment of liquid waste that would meet the needs of all settlements and local industry. By focusing on the percentage of households with direct access to sewage, it could be noticed that Apatin municipality (36%) is at the Republican (34%), or AP Vojvodina level (37%) and in much better position than the Bač municipality (12%).

In both municipalities there is a problem of overlapping of faecal and atmospheric water sewage systems. Many households joined their faecal sewage drains to the system of atmospheric water sewage. This problem would be solved by establishment of the regional sewage system.

### **CONCLUSIONS**

At the end of 2010, the EU Commission established the EU Strategy for the Danube Region, strategy that targets macro-region of 800,000 km<sup>2</sup>, with a population over 100 million (8 EU and 6 non-EU countries). Danube River also runs through Serbia (588 km) representing the natural border with Croatia and Romania. Like in complete

Republic, zones of Danube basin in Serbia considered mostly rural areas, where agriculture is dominant economy activity within local population. Having in mind that modern agricultural production presumes multifunctionality, where agricultural resources are not used only for food production, but also for other purposes and that residents of rural areas nowadays require satisfactory life quality that implies the existence and adequate functioning of all elements of physical infrastructure, according presented current state of all infrastructure elements in the zone of Upper Danube Region (municipalities of Apatin and Bač) it could be concluded that Serbia have potentials that could have impact on stronger cooperation between territories connected by Danube River (primarily with border countries). Certainly, lack of financial assets for the establishment of missing and revitalization of obsolete infrastructural elements can be overcome through the timely prepared infrastructural projects by the local authorities from the observed zone, how they can easier reach future EU pre-accession funds for the rural development.

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## REFERENCES

- [1] *EU strategy for the Danube region*, European Commission, REGIO/E1/EN/NV/OB D(2010), 2010, Brussels, Belgium.
- [2] Jeločnik M., Ivanović Lana, Subić J., 2011, *How strong is Serbian agriculture – comparative analysis of few agricultural indicators of Serbia and Romania*, Monography - Serbia and the European Union: economic lessons from the new member states, University of Coimbra, Portugal.
- [3] Jeločnik M., Cvijanović D., Cicea C., 2007, Importance of transportation and telecommunications infrastructure for rural development of Serbia in the context of European integrations, Scientific Papers (Series "Management, Economic Engineering in Agriculture and Rural development"), Vol. 7/2007, Bucharest, Romania.
- [4] Mitrović Svetlana, 2010, *Financing of roads infrastructure in Serbia and possibilities for its improvement*, Industrija, no. 1/2010, Economics Institute, Belgrade, Serbia.
- [5] *Municipalities in Serbia, 2009-2010*, Statistical Office of the Republic of Serbia, Belgrade, Serbia.
- [6] Njegovan Z., Pejanović R., Marković Katarina, 2010, *Strategic planning on the local level as a factor of more efficient rural development*, Economics of agriculture, Vol. LVII, SE-2, book 1, IAE Belgrade, Serbia.
- [7] Novković N., 2007, *Encouraging of agribusiness and employment promotion in the rural areas*, Economics of agriculture, no. 1/2007, IAE Belgrade, Serbia.
- [8] *Statistical yearbook of Serbia, 2009-2010*, Statistical Office of the Republic of Serbia, Belgrade, Serbia.
- [9] Strategija društveno-ekonomskog razvoja opštine Bač 2009-2014, Skupština Opštine Bač, 2009, Bač, Srbija.
- [10] Strategija održivog razvoja opštine Apatin 2009-2019, Skupština Opštine Apatin, 2009, Apatin, Srbija.
- [11] Vračarić Milica, 2009, *The Danube region of Serbia - challenges & perspectives of development*, Conference on the way to the European Danube strategy, 2009, Brussels, Belgium.

## RURAL TOURISM- IMPLICATIONS IN THE DEVELOPMENT OF THE ROMANIAN VILLAGES

Claudia LEPĂDATU <sup>1</sup>

<sup>1</sup>Institute of Research in Agrarian Economics and Rural Development, 61, Mărăști, sector 1, 011464, Bucharest, Romania, Phone: + 40 21 318 16 86, Fax: +40 21 318 16 86, E-mail: claudialepadatu2005@yahoo.com

*Corresponding author:* [claudialepadatu2005@yahoo.com](mailto:claudialepadatu2005@yahoo.com)

### Abstract

*Tourism is an important economic activity in the European Union. It comprises a wide variety of product and destinations and many different stake holders are involved. Tourism has great potential as regards contributing to achievement on several major EU objectives, such as sustainable development, economic growth, employment and economic and social cohesion. Strategic approach process is to create the conditions and provide the basis for sustainable, high-quality tourism and competitive Romanian tourism. The strategy for achieving this is based on a number of points, the main ones being: to follow a knowledge-driven approach, to know how to better exploit existing information, to acquire and develop know-how, to innovate by developing new process and to benefit from best practice.*

**Keywords :** *economic, sustainable, developing, stakeholders, great*

### INTRODUCTION

In the last 50 years, tourism has become one of the most important industries, continually evolving. Tourism has become, also, a big cultural and environmental problem in a lot of areas because of strong short term development that do not take into account long term changes it might produce. Concepts that together form a durable tourism strategy, have been planned and tested, exactly to avoid deterioration of the equilibrium of the areas where tourism activities take place and are applicable to Romania. Now, with the help of durable tourism strategies, Romania can begin obtaining benefits from tourism while avoiding the mistakes from other areas. It should be noted that tourism can't guarantee that all issues can be resolved in the protected areas in Romania. Tourism is a risky business, not every year is a success and not all regions can be successful (from the point of view of tourism activities).

### MATERIAL AND METHODS

Modern concepts involving the protected areas and national parks date since 1872 when

certain terrain have been deliberately excluded from urban and rural development in the time of US colonization by Europeans. These concepts are used today in over 30000 protected areas from around the world. A hundred years later durability and durable growth concepts have appeared. Their origins come from the famous Bruntland report in 1987, by the world commission for environment and development (WCED, 1987) The Bruntland report has highlighted four crucial principles for the concept of durability:

- The idea of holistic planning, cross-sector planning and strategy elaboration
- The importance of maintaining the main ecologic processes
- The need to maintain valuable human legacy and biodiversity
- Acknowledgement of the fact that areal development should be made so that it does not exhaust resources on a long term

Additionally, the Bruntland report introduces the equitability theme debate between generations and international equity, a bigger convergence between rich and poor nations can keep the global system stable.

Tourism was one of the most successful



industries in growth after the war. In 1950 there were only 25 million international tourist arrivals in the whole world. Today, over 650 million tourists travel around the world each year. Almost ten times as many tourists travel during holidays in their own country, than in 1950.

Tourism can have a strong physical impact over the used areas: forests and farms destroyed to make room for the construction of airports and roads, hotels and golf courses, often in very picturesque areas. Tourism can have serious cultural impacts. Tourist presence can erase local customs, can change land value and the workforce market, can provoke local language regress, can change the political equilibrium in favor of multinational companies, detached from local problems. Loss of proprieties at a local level can lead to the loss of the winnings and local control over the activities.

Transport to and from tourist destinations can have serious impacts - last but not least it can have an effect on global warming and the atmosphere. Aerial and auto transport burn huge quantities of fossil fuel and release large quantities of gas in the atmosphere. At the level of terrain, transportation by car and car parking can severely damage landscape and undisturbed nature from the protected areas.

Even more subtle, tourism can destroy the promised future by transforming a tourist destination into an area that is dependant to the money that comes for tourist activities and afterwards to be considered out of fashion or uninteresting. Tourism is a business in a domain with a lot of competition: destinations are usually the ones "in fashion" and are vulnerable to tourism market inconsistent changes. Thus, tourist products that are in fashion have a cyclical change regime that can affect large tourist locations and also small rural communities.

Conventional tourism development looks at culture and the natural environment as resources destined to exploitation and exposed to exhaustion. Conventional tourism is a short term industry, as one tourism season is considered a long time in the domain. Conventional tourism survives by continual evolution, marketing being considered a

solution for a lot of problems. Marketing politics almost always look to increase the number of visitors, very few take into account the responsibility towards the natural environment : this doesn't necessarily happens due to marketing specialists because they have no preparation on the matter of durable development and are only judged by the increased rate of visitors. This marketing system is already very well know and produces a powerful reaction from factors that are responsible of environment protection. Subtlety, approaching problems as a whole and a balanced way of thinking haven't been the distinctive signs of tourism development at the middle of the 20th century.

To create durable tourism, an open approach is needed, and partnership between interested factors. The success of partnerships depends on the goodwill and flexibility of the implicated factors. A long term approach is needed, a hard thing to create in a modern world which is continually changing. Tourism needs special skills and is a domain with hard competing market economy; flair, accepting necessary risks, tourism market and international tours network knowledge are essential.

## RESULTS AND DISCUSSIONS

Key factors for a durable tourism strategy in protected areas in rural areas include:

-Uniqueness and the special character of the market niche constituted by rural tourism is ruralism itself, contact with nature, with the traditional rural society, with animal raising, with fishermen and lumberjack societies. Durable tourism shouldn't be located only outside cities, it should be part of a functioning rural society and not a tourist location placed in a former farm.

-Typical rural activities are on a small scale, local and individual. Durable rural tourism should, thusly, match the size of the rural area where it takes place. Normally, but not always, durable tourism will take place on a small scale, but this depends on local circumstances. In rural tourism human contact is important, and this is possible due to small scale activities.

-The goal of rural tourism should be local economy diversification and not the replacement of animal raising activities with other tourism activities. Substitution can have 3 dangers : brings dependency to one activity, starts the development of a tourist only area, and in this way the uniqueness based on ruralism and nature is lost and the decline of agriculture begins leading in the end to the destruction of habitats and landmarks. The loss of traditional landscape and habitats means, implicitly, the loss of uniqueness and the market niche for the tourism market and creates unfixable losses of cultural and natural values.

-Tourism can be developed in two ways. It can be developed only by tourism itself and is possible that this process brings jobs and welfare in the area or it can be looked at in a larger context and used as an instrument to resolve or alleviate certain specific problems. For example, accommodations can be developed under hotel forms, belonging to national and international hotel chains. These networks that have marketing and management facilities can have success and can create jobs in rural areas. Tourism concepts suggest an alternative development.

If the locals were the owners of the tourist facilities, development due to renovation of traditional houses or due to new buildings being constructed, a number of advantages would be created. First the locals would be motivated to remain in the area and maintain their traditional activities. Locals would enlarge their horizons for gaining new skills and knowledge, would need training courses that are good for the diversification of activities. The concept of tourism as an instrument can be used for the preservation of nature in protected areas, for revitalizing services on rural railroads, for raising income in the marketplace, for maintaining functionality of other services provided by the local community.

-The need for the conservation of the host community and the natural habitats is of major importance in the concept of rural tourism. While some types for tourism can destroy communities and habitats, durable tourism has a goal of using the income and

opportunities tied to tourist activities as an instrument for preservation. Incomes from the sale of traditional food and non food products can become an instrument of preservation as well.

-The concept, that according to, tourism control and tourism benefits must be centered in local communities, represents the essence of durable tourism. Thus it can help the preservation of local values, it can bring income to declining areas, it can reactivate the political and social life in the areas that have lost hope. Local control assumes the forming, in the local community, of diverse skills and knowledge, successful development assumes constant perfecting, education and continual information of the community and its members. Since from the beginning, local communities and interested factors should be involved in the process of elaborating a strategy even if this process can be long and difficult.

-Although tourism can look to many rural communities and their leaders, like a universal panacea to their problems, there are big threats connected to the development as tourism as an only resource of economic activities. Rural communities can have serious problems if they rely totally on the tourism market. For tourism to remain rural, an authentic rural economy with prosperous farmers must be encouraged, with a functional rural life and a authentic and original cultural scene.

## CONCLUSIONS

Rural tourism is a concept that is meant, not to stop tourism, but to direct it in the interest of all involved parties: host habitats and communities, tourists and the tourist industry itself. This way, there is a tendency towards reaching an equilibrium between development and conservation, to finding the best form of tourism for a certain area, taking into consideration ecology and its culture. For accomplishing this equilibrium there is a possibility that limitation or even stopping extensive development might be necessary,

there is a need for a large range of tourism management measures.

## REFERENCES

- [1] Ionciă Maria(coord),2004,Strategia de dezvoltare a sectorului terțiar, Editura Uranus, Bucuresti
- [2] Istrate, I., Bran Florina, Agroturism în România, Tribuna economică, nr. 32/1995, pag 26
- [3] Stănciulescu Gabriela,2004, Managementul turismului durabil în centrele urbane, Editura All Beck, București.
- [4] \*\*\*Strategia de turism durabil a României, proiect
- [5]\*\*\* România Turism '96, Pagini Naționale, București 1996

## YOUNG PEOPLES' EXPOSURE TO FARMING IN WESTERN EUROPE: A MEANS FOR RURAL DEVELOPMENT IN ROMANIA?

Ove MADSEN<sup>1</sup>, Gina FINTINERU<sup>2</sup>

<sup>1</sup>Grindsted Agricultural College, 40 Tronsø Parkvej, 7200 Grindsted, Denmark, Phone +45 2167 2027, email: [ovemadsen@hotmail.com](mailto:ovemadsen@hotmail.com)

<sup>2</sup>University of Agricultural Sciences and Veterinary Medicine, Faculty of Management, 59 Marasti Bd, sector 1, code zip 011464, Bucharest, Romania, Phone: +40-21-3180465, email: [gina.fintineru@usamv.ro](mailto:gina.fintineru@usamv.ro)

### Abstract

*Many young Romanians travel to Western Europe in order to get new experiences and in order to earn money. Potentially, returning migrants might spark new development in rural areas in Romania. The paper examines, whether there are indications that this is already now taking place, or is likely to happen in the future for young Romanians, who have gone to Denmark in order to pursue an agricultural education and work on farms in Denmark. Upon arrival in Denmark, expectations and hopes of young Romanians is that someday they will be able to return to Romania – preferably to their village/town/region of origin. Evidence is that many migrants, after spending a limited period of time in Denmark, return to Romania, utilise the experience from Denmark in developing occupational career in Romania, but very few decide to start new activities in rural areas.*

**Keywords:** returning migrants, rural development, agricultural education, Denmark

### INTRODUCTION

Increasingly, young Romanians migrate from rural areas to towns and/or to countries in Western Europe, looking for a better life. For those, who migrate to other countries, UK and to some extent also Ireland seems to be the preferred recipient countries, but a sizeable number of young Romanians migrate to other Western European countries, including Denmark.

Potentially, such migration can be devastating for sending communities: namely to the extent that virtually all young people, and especially the skilled part of the population leave the village in order to live in towns or in Western European countries, so that only the old, the weak and possibly also the children are left behind.

On the other hand, there is evidence that migration can have a number of positive effects, which will tend to stimulate economic development in sending communities.

Based upon findings related to different OECD countries, and comprising many categories of migrants, Katseli et al. (2006) provide an overview of some of these [1]:

- Financial remittances;

- In the short run, migration creates benefits for sending societies in terms of better employment opportunities for low skilled workers;
- In the medium to long term benefits for sending societies are expected via enhanced productivity, caused by technological change, productive restructuring, internal labour mobility or skill accumulation;
- People, who return to their native countries, often put to profitable use the entrepreneurial, organizational and managerial skills, which they have acquired abroad, or invest their savings in profitable activities in the retail or service sector.

Furthermore, migration tend to have positive effects for sending communities in terms of what could be named “social remittances”: ideas, practises, identities and social capital flow back to sending communities [3].

The above outlined evidence paints “the big picture”, the evidence on the global scale. It remains unclear, whether such positive effects are applicable also in the Romanian context.

The purpose of the present paper is to examine, whether there are indications that

positive long term effects are applicable for Romanian rural communities, which send young people to work/study agriculture in Western Europe, in casu: Denmark.

## MATERIAL AND METHODS

Data from Statistics Denmark [4] were analysed in order to estimate the number of young Romanians presently working/studying in the agricultural sector in Denmark.

Expectations and attitudes of young Romanians, who have recently arrived in Denmark, were documented. 37 students filled in questionnaires, which were constructed so as to support or to reject the following hypothesis:

*Young Romanian citizens, who temporarily work in the farming sector in Denmark, contribute, or will at a later stage, contribute positively towards the further development of the community, which they came from.*

Findings were examined in further detail via a focus group discussion with 7 respondents, 5 male and 2 female.

Feed back from young Romanians, who came to Denmark 5 – 7 years ago, was analysed in order to assess whether migrants still live in Denmark or if they have now returned to Romania. And for those, who returned to Romania: what are they doing now?

Finally results are discussed seen in the light of the current situation of sending communities.

## RESULTS AND DISCUSSIONS

### Romanians citizens working/studying in the farming sector in Denmark

Data from Statistics Denmark show that a total of 7961 Romanian citizens were resident in Denmark on 1 Jan 2011. Up to 2006, not very many Romanian citizens lived in Denmark, but starting approximately 2007, increasingly, Romanian citizens have decided to migrate to Denmark (chart 1).

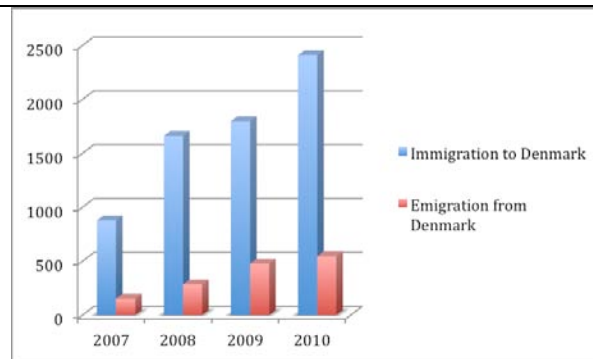


Chart 1: Romanian citizens migrating to/from Denmark

Reasons for the rapid increase in immigration from Romania to Denmark are not fully understood, but contributing reasons might be:

- The last couple of years before the financial crises (approx, Oct. 2008) it was very easy for Romanian citizens to get a work permit, simply because there was such a desperate need for workers at all levels in Denmark during these years.
- From May 2009, citizens from all EU countries are free to apply for jobs in Denmark, also in cases where qualified Danish nationals are available. No work permit is required.

Typically, the immigrants are between 20 and 30 years of age. 98% come directly from Romania, 2 % from a different country. 60% are male, 40% female. Unfortunately there is no statistical evidence concerning the educational background of immigrants.

The number of Romanian citizens, who leave Denmark is quite small at present. This is natural taking into account that migration from Romania to Denmark on a larger scale is a relatively new phenomena. It remains to be seen to what extent there will in the future be a larger “backflow” of Romanian citizens, bringing their new competences back to Romania.

In 2010, 78 % of the Romanian citizens, who left Denmark went back to Romania. 22% went to a different country.

Until May 2009, Romanian citizens needed a work permit in order to study/work in

Denmark. Chart 2 shows the number of work permits issued (2003 – 2008) [5].

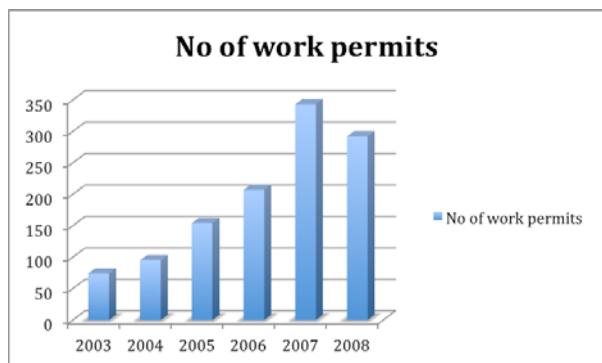


Chart 2: Work permits issued to Romanian citizens (work/study agriculture)

Number of work permits for Romanians working in/studying agriculture increased considerably from 2003 to 2008 – albeit with a small decrease in 2008. For 2009 and 2010 no such information is available, because Romanian citizens are now free to work in Denmark without a work permit. If the general picture (chart 1) is also valid for migrants, who work in agriculture, it must, however, be assumed that at present there are several hundred Romanian citizens working and studying agriculture in Denmark.

### Expectations and attitudes upon arrival to Denmark.

The 37 respondents arrived in Denmark late January 2011 in order to attend basic agricultural training at Grindsted Agricultural College. When the survey was performed they had stayed in Denmark for approx. 2 months, i.e.: they had settled in the new environment, but they did not yet have a full perception of opportunities/drawbacks related to staying abroad..

The overall profile of respondents are more or less the same as what is the case for all Ro immigrants to Denmark: average age was 24 years (between 19 and 30), 29 male, 8 female. Previous education: 8 were primary school leavers, 29 had further education of some kind (College, University or similar).

Table 3 shows respondents’ motivation for migrating to Denmark. The number of replies exceeds the number of respondents, because

some respondents ticked more than one reason. The most important “pulling factors” are: possibility for earning money and opportunity to learn more.

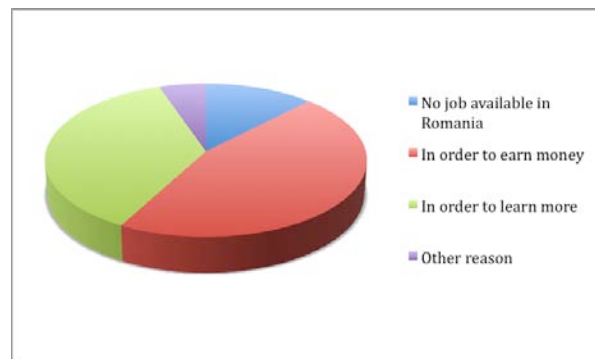


Chart 3: Motivation for going to Denmark

During the focus group discussion, we discussed the question: “Why Denmark”? In nearly all cases the reason given was: “because I have friends, who are, or have been, studying/working in Denmark”.

Chart 4 shows expectations regarding the length of stay in Denmark. All expect to stay in Denmark for at least 2 years and the majority expect to stay in Denmark for at least 5 years.

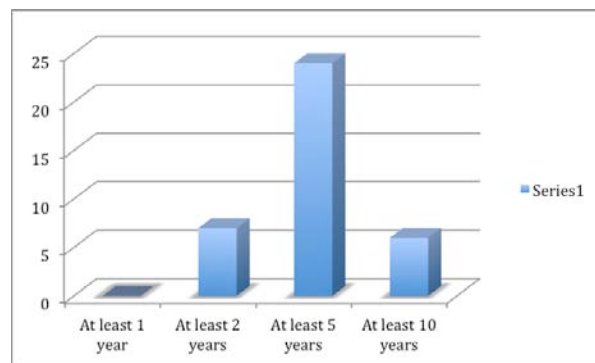


Chart 4: For how long do migrants expect to stay in Denmark?

During the focus group discussion, respondents pointed out that they did not yet have a full understanding of consequences of migration, hence it was difficult to tell with any certainty, for how long they expected to stay in Denmark. They also pointed out that length of stay in Denmark would depend very much upon economic, legislative and social

development in Romania during years to come.

Chart 5 shows that the majority of migrants want to settle in their village/town of origin if/when they leave Denmark.

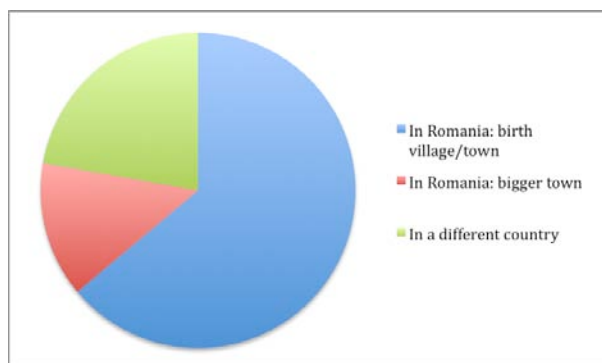


Chart 5: Where do migrants want to settle eventually, if/when they leave Denmark?

Chart 6 shows respondents' career plans. Also here: some respondents ticked more than 1 possibility. Seemingly: a major part of respondents could well see themselves working in Denmark for a considerable period of time. They do not find job opportunities in contemporary Romania attractive. Then rather setting up private business, in farming or in other sectors – in Denmark or in Romania.

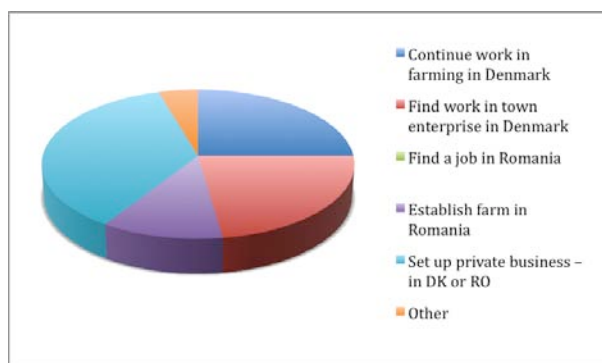


Chart 6: Respondents' career plans

During the focus group discussion respondents confirmed that eventually they would like to settle in their home village/town. They dream about starting some kind of business there: farming or in other sectors. However, they find that the overall business framework in contemporary Romania is not encouraging, to a very large

extent because of neglect (on the side of authorities) and because of burdensome bureaucratic procedures related to start of business. Which is why, for the time being, they imagine that they will work in Denmark (or in some other Western country) for a considerable period of time, either in farming or in other sectors. Working as employees in Romania is not seen as a rewarding option (respondents perceive salaries in Romania as very low and working conditions not attractive).

### The returning migrants – and those who did not return

Typically, the young Romanians who come to Denmark in order to pursue work/training in agriculture will attend a course of duration 20 weeks, when they arrive in Denmark. Shortly before completing the introductory course they will, typically, make an educational contract with a farmer. This contract will cover both the period of practical farm work (typically 1 – 1½ years) and the subsequent theoretical course at an agricultural college (duration 16 weeks). Having completed the 2 theoretical courses and the practical training, the students are then “agricultural assistants”, meaning that they are able to independently, but under guidance, perform normal duties in a commercial (dairy or pig) farm.

The content of the educational contract (salary, working hours etc.) is identical for Danish students and for foreign students and students receive salary, both while studying at College and while working on farms.

Having completed the basic agricultural education, several options are available:

- Students will go back to a farm and work as agricultural worker in Denmark for an extended period of time.
- They continue the education in Denmark up to the level of “skilled farmer”. In this case the student will get one more educational contract comprising approx. 15 months of apprenticeship (practical work on commercial farms + further theory - 5 months).

- They can change occupation and get work in other sectors in Denmark.
- They can return to Romania.
- They can proceed to a different country (not Romania).

We contacted a number of young Romanians, who came to Denmark around 2005 (completed the basic agricultural education around 2007) in order to find out “what happened after”.

We got feedback from 13 respondents. Not enough for giving a full overview of outcomes, yet enough for illustrating tendencies. Out of these 13 respondents:

- 2 are still in Denmark – working on farms
- None have continued the education in Denmark up to the level of skilled farmer
- 2 work in other sectors in Denmark
- 9 have returned to Romania. All of them returned to their native towns/regions. All have jobs, typically agriculture related jobs in Agro-industries in towns.
- None has proceeded to a different country.

Of course the number of respondents is very low, but it is striking that so many have already now returned to Romania, presumably bringing with them new experiences, which they can utilise in their future career.

We tried to examine this aspect in further detail by asking the question: Exactly how have you benefited from your training in Denmark? Not many respondents answered this question in any detail, but a few testimonials were given, mainly referring to professional experience, life experience, decision making skills, etc.

*“I learned a lot of interesting things in this period spent in Denmark, not only in agriculture, but also important things for a better life, finding a better job etc. Now I can say that I am more honest, think more positive and optimistic. Now when I take an important decision I reflect more at the problems and I think to take the best way to find the solution.”*

*“I think that all what I have learned in DK help my CV here in Romania. Where I am working now it was very important that I have foreign experience.”*

*“Good for Denmark because it provides cheap work force, and good for Romania: money for investment “*

### **Implications for sending communities**

Participants in the focus group discussion were very much aware that, in the short term, outward migration can be seen as a brain drain, which act as a hindrance to the development of rural communities. However, this is true not only for migration out of Romania, but also for migration from rural areas to urban areas in Romania.

And: the majority of respondents in the present study were born in towns or they had migrated to towns before travelling to Denmark.

The group, which migrated recently, do not at present have a clear picture, whether they will eventually return to Romania or not. But if they do return to Romania, they do not expect to settle in remote rural areas. They expect to settle in towns, or in villages located close to towns, where they have family, friends and network.

And this is exactly what happened for the group, which migrated to Denmark approx. 6 years ago. The majority of respondents in this group have now returned to Romania, where they have settled in towns.

During the focus group discussion it also came out clearly that issues like well developed infrastructure are considered important, when deciding where to settle – and possibly set up a business.

These patterns are in accordance with findings of Sandu [2]: it is not very likely that migrants will return to remote villages with insufficient infrastructure, but it is quite likely that they return to villages, which have the following characteristics

- located in a relatively poor region;
- close to a market town;
- near to a national highway;
- have a youngish population;
- a tradition of commuting in the village.

Returning migrants can stimulate economic development in such villages, but only 4% of the villages in the analysed study [2] possess the above characteristics. It is therefore obvious that returning migrants cannot be considered as a “miracle cure” for ailments resulting from outward migration.



Returning migrants will certainly contribute to the further development of Romanian society, aided by knowledge and competences acquired abroad, but from a rural development point of view: mainly via development of the agricultural sector at large or via trickle down effect. Only to a limited extent via direct involvement or investment in business in rural areas.

## CONCLUSIONS

Young Romanians, who have recently migrated to Denmark in order to study/work in the agricultural sector, hope to earn some money and to attain new competences. They expect to stay in Denmark for a number of years, but the majority carry a dream of eventually settling in Romania, bringing with them new competencies and hopefully also some savings, which can be used for resuming life in Romania.

Many young Romanians, who migrated to Denmark some 6 years ago have done just that: returned to Romania, where they have in a satisfactory manner continued their professional career.

All of the returning migrants in the study have settled in towns. Thus there is little direct effect in terms of rural development derived from returning migrants. But there might well be spin-off effects or trickle down effects derived from returning migrants.

## REFERENCES

- [1] Louka T. Katseli, Robert E.B. Lucas and Theodora Xenogiani (2006): Effects of migration on sending countries: what do we know ? OECD Development Centre, Working Paper no 250. International symposium on migration and development, Turin, Italy.
- [2] Sandu Dumitru (2002): Emerging transnational migration from Romanian villages. [www.migrationonline.cz](http://www.migrationonline.cz) . Translated from Migratia transnatională a romanilor din perspectiva unui recensământ comunitar in „Sociologie Românească”, No. 3-4/2000
- [3] UNDP (2009): Human Development Report. Overcoming barriers: Human mobility and development
- [4] Statistics Denmark: [www.dst.dk](http://www.dst.dk)
- [5] New in Denmark: [www.nyidanmark.dk](http://www.nyidanmark.dk)

## NON-WOOD FOREST PRODUCTS MARKETING, POTENTIAL FACTOR OF RURAL DEVELOPMENT

Adriana MAN, Sabina FUNAR

University of Agricultural Sciences and Veterinary Medicine Cluj Napoca  
3-5 Calea Mănăştur street, Cluj Napoca, 400372, Cluj, România, 0264-596384,  
adrianacofari@yahoo.fr

**Corresponding author:** adrianacofari@yahoo.fr

### Abstract

*The aim of this research is to determine future rural development directions using the marketing of non-wood forest products (NWFP). First, it was analyzed the commerce with NWFP in Romania, and then were analyzed success strategies and businesses around the world. Although at global and regional level the tendency is to increase the importance of NWFP, in Romania the research results show a decrease of harvested quantities and exports, as well the processing plants are almost absent. Therefore public authorities should involve and recover this field through concrete measures.*

**Keywords:** non-wood forest products marketing, rural development, tendencies

### INTRODUCTION

In the last years, researchers state that it is possible to develop rural areas through non-wood forest products (NWFP) [1], [4], [12].

According to FAO, NWFP are products of biological origin other than wood derived from forests, other wooded land and trees outside forests. NWFP include products used as food and food additives (edible nuts, mushrooms, fruits, herbs, spices and condiments, aromatic plants, game), fibres (used in construction, furniture, clothing), resins, gums, and plant and animal products used for medicinal, cosmetic or cultural purposes [5].

NWFP differ through a number of characteristics that include production, perishability, value and seasonality [5].

Romania's forests occupy about 27% of the country (Figure 1). The major forest resource exploited is wood.

In Romania, non-wood forest products are represented in terms of commercial matters mainly by forest fruits and mushrooms, game, and medicinal plants. The NWFP with food value are sold abroad usually fresh.

Many rural communities, in areas rich in forests, rely significantly on processing of wood and non-wood forest products. Harvesting and processing sector of forest

products is not sufficiently developed. Also given that the companies involved are often very small size and have limited facilities, require investments to achieve EU standards, product quality, and environmental protection and labour insurance [16].

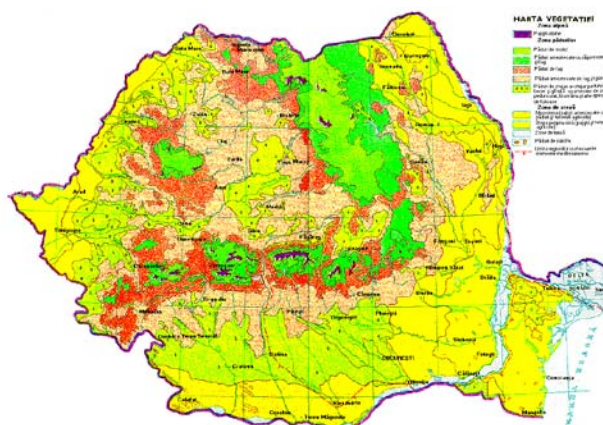


Figure 1  
Vegetation map

Source: [17]

It is expected that an increase in value added of forest products made in micro-enterprises will increase the contribution of the forestry sector in the local and regional economy.

Also, in order to optimize the forestry industry, specialists recommend that forestry products processing should be performed whenever possible in local areas where they are produced,

to avoid additional transport costs and increasing CO<sub>2</sub> emissions [16].

Improved marketing is also a premise of increasing competitiveness.

In this idea improved marketing could be a premise of increasing competitiveness of this sector and a factor of rural development.

Therefore the aim of the present research is to determine future directions of rural development based on the marketing of non-wood forest products.

## MATERIAL AND METHODS

First, statistical data were searched to determine and analyze the actual situation of NWFP commercialization in Romania, with respect to products sold in raw or processed.

This stage of the research was a difficult one. Because neither the National Forest Administration, or the private owners of forest or of processing plants do not publish data.

Data presented and analysed in the present study are published by National Institute of Statistics (INS).

Then were searched information about success business plans and strategies applied in rural communities, whose development depends on forests. This part of the study was made with the purpose to find ideas and elements which could be used also in Romanian rural areas.

## RESULTS AND DISCUSSIONS

In Romania, according to National Forest Administration Romsilva, the commerce with NWFP represents 20-30% from the annually turnover [2].

In 21 European countries, among them Romania, was developed during September 2002- September 2006, an international project COST E30 "Economic integration of urban consumers demand and rural forestry production" [11]. One of the objectives of the project was to develop a general analysis of non-wood forest products.

Consequently in Romania were identified as important products, with commercial potential:

- forest fruits,
- wild mushrooms,
- medicinal plants,

- game,
- tourism and
- nature conservation.

Also was determined that forest fruit and game have an increasing trend in consumption, the other products remaining at a constant level [13], [14].

The most important and most marketed forest fruits, according Romsilva, are: blueberries (*Vaccinium myrtillus*), sea buckthorn (*Hippophae rhamnoides*), rosehips (*Rosa canina*), cranberries (*Vaccinium vitis-idea*), blackberries (*Rubus myrthus*), hawthorn (*Crataegus monogyna*), and raspberries (*Rubus idaea*) [18].

And the most important and most marketed wild mushrooms are: chanterelles (*Cantharellus cibarius*), honey fungus (*Armillaria mellea*), penny buns (*Boletus edulis*), and morels (*Morchella spongiosa*) [18]. Every year the harvest time for the forest fruit and wild mushrooms is a period when unemployed or low income people who live near to forests succeed to realize revenues.

NWFP with food value after gathering, are stored at so called collecting centres. Almost each Romanian local forestry administration manages one collecting centre in order to keep in optimum conditions the collected products. Also the private investors have their own centres, but there is no official data with their number.

NWFP with food value usually are sold abroad by Romsilva and private forest owners mainly fresh, also frozen, refrigerated, dried or brine.

However for a better commercialization of forest fruits and to increase the value of the products, Romsilva founded in 2004 in Romania the first plant of natural juices and nectars from forest fruits. Unfortunately Silva Fruct products are not present in the modern retailing system and rarely in the traditional retailing.

In the last years the sales of forest fruits decreased, yet in 2009 comparing with 2008 sales increased with 5.2%. Data for wild mushrooms are not available at national level, as can be seen in Table 1. The sales of bee honey oscillate, in the same time many local forestry administrations have dropped in recent years to deal with beekeeping.

Table 1. Non wood forest products sold at national level

	U.M	2005	2006	2007	2008	2009
Forest fruit	Tone	6348	6534	6 447	4 587	4 825
Wild mushr ooms	Tone	:	:	:	313	:
Honey	Mii lei	101,3	292,8	143,1	168,8	:

Source: processed data after [6], [7], [9], [19]

„:” - data not available

With respect to forest fruits in 2009 the demand and the prices were lower than in 2008. Also in some regions of the country bad weather conditions did not allow gathering campaigns progress normally. Anyway the gathered and sold quantities were higher than in 2008 [15].

These facts confirm that gathering of non-wood forest products is influenced every year mainly by weather, market demand and workforce.

In 2008 statistical data show that from Microregion One (North-West and Centre regions) were gathered 43% of forest fruit sold at national level by Romsilva and 68% of wild mushrooms [10].

With respect to medicinal plants species and quantities gathered differ annually, however national data are not available, maybe due to the small quantities.

When about game, also current data are missing. For 2008, were allowed for hunt 13 species of mammals and three species of birds [8].

To promote the forest tourism Romsilva intended to give in tourism circuit the hunting lodges. How was applied the idea and which are the results also is unknown.

In terms of nature conservation, Romsilva manage 22 national and natural parks. These parks are opened for tourists.

In North America the range of gathered NWFP include mainly branches of conifers, wild rice, forest fruits and medicinal plants. In British Columbia are recognized over 200 types of NWFPs, while in Ontario 50 of them are commercialized.

In Canada, were applied successful projects for improving life and reducing poverty in the rural area through of non-wood forest products [3]. Annually the value of products based on NWFP realized in the Canadian rural areas is over 240 million dollars. The most important

commercialized products with food value are maple syrup, mushrooms and forest fruits [3].

In the countries where is given a higher importance to NWFP, for a better development of this products action is considered necessary in three directions [3].

First, it is necessary to promote sustainable gathering by understanding the biological and ecological specificities of the forest products. Also sustainable culture techniques are recommended.

Second, gatherers and owners should know plants biology in order to optimize the gathering.

Third, some NWFP could be transformed in culture plants to meet the demand and to avoid damaging the sustainability of harvesting.

## CONCLUSIONS

1. International studies revealed that Romania has potential to market NWFPs, mainly products with food value (fruits, wild mushrooms), medicinal plants and sports and leisure services (game, tourism, natural parks).

2. However statistical data referring to marketing of these products are scarce or even missing.

3. For products with food value and medicinal plants the trend is to decrease the marketed quantities.

4. The products with food value are generally sold abroad under raw form.

5. The North American example shows that it is possible to export with success high quantities of products based on NWFP and in the same time to help developing rural areas.

6. Also at international level are established solutions to exploit in a sustainable way the NWFP.

Based on these conclusions few recommendations could be drawn:

1. Romanian forest owners should realise an inventory of the NWFP which could be marketed in the future on the Romanian and international markets.

2. Also it should be promoted sustainable harvesting.

3. The rural areas could develop by establishing plants to transform NWFP in products with high commercial value.

## REFERENCES

- [1] Chamberlain, L., Bush, R., Hammett, A.L., 1998, Non-Timber Forest Products - The other forest products, *Forest Products Journal*, 48(10): 10-19
- [2] Cofari (Man) Adriana, 2010, Managementul și marketingul produselor forestiere nelemnoase, teză de doctorat
- [3] Duchesne, L.C. (2003). Developing nontimber forest products in Canada. *Frontline Express*, no.28. accesat la <http://cfs.nrcan.gc.ca/news/296>, 18.10.2008
- [4] Emery, Marla, 2001, Who knows? Local Non-Timber Forest Product knowledge and stewardship practices in Northern Michigan, *Journal of Sustainable Forestry*, 13 (3/4), 123-139
- [5] FAO, 2011, What are non-wood forest products? <http://www.fao.org/forestry/nwfp/6388/en/> accessed at 15.03.11
- [6] INS., 2007, Comunicat de presă nr. 97 din 15 mai
- [7] INS., 2009, Comunicat de presă nr. 102 din 29 mai
- [8] INS., 2009, Comunicat de presă nr. 146 din 31 iulie
- [9] INS., 2010, Comunicat de presă nr. 108 din 31 mai
- [10] Man, Adriana & Funar, Sabina, 2010, Produsele forestiere nelemnoase, o sursă de atenuare a involuției socio-economice a zonei rurale. Competitivitatea economiei agroalimentare și rurale în condițiile crizei mondiale II, ASE, București
- [11] Niskanen, A., ed., 2006, Issues affecting enterprise development in the forest sector in Europe, University of Joensuu, Finlanda, accesat la [joensuu.fi/publications](http://joensuu.fi/publications) 10.07.10
- [12] Robbins, P., Emery, M., Rice, J., 2008, Gathering in Thoreau's backyard: nontimber forest product harvesting as practice, *Area*, 40(2), 265-277
- [13] Seeland, K. & Staniszewsky, P., 2006, Indicators for a European cross-country assesment of non-timber forest products & services. In: Issues affecting enterprise development in the forest sector in Europe, University of Joensuu, Finlanda, 299-320. accesat la [joensuu.fi/publications](http://joensuu.fi/publications) 10.07.10
- [14] Seeland, K. & Staniszewsky, P., 2007, Indicators for a European cross-country state-of-the-art assesment of non-timber forest products and services. *Small-scale forestry*, 6, 411-422.
- [15] [www.ecomagazin.ro](http://www.ecomagazin.ro), 2009b, Romsilva a recoltat circa 4900 tone de fructe de pădure, cu 274 mai puțin decât estima inițial, accesat 02.08.10
- [16] <http://www.fonduri-structurale-europene.ro/pndr/produse-agricole-forestiere.html>, accesat 19.10.11
- [17] [www.proapicultura.ro](http://www.proapicultura.ro), accesat 19.10.11
- [18] [www.rosilva.ro](http://www.rosilva.ro), accesat 19.10.11
- [19] [www.statistici.insse.ro](http://www.statistici.insse.ro), accesat, 02.08.10

## CLUJ-NAPOCA INHABITANTS' ATTITUDES TOWARD FOREST FRUITS CONSUMPTION

**Adriana MAN, Sabina FUNAR**

University of Agricultural Sciences and Veterinary Medicine Cluj Napoca  
Calea Mănăştur 3-5, Cluj Napoca, Cluj, România, 0264-596384, adrianacofari@yahoo.fr

**Corresponding author:** adrianacofari@yahoo.fr

### **Abstract**

*The aim of the paper is to determine the attitudes toward forest fruit consumption based on a survey conducted in October 2009 in Cluj Napoca. The questionnaire was applied on 243 respondents using the convenience sampling. Attitude was determined and calculated using the Theory of Planned Behaviour. The findings permit to reveal the consumption motives for forest fruits and the importance in nutrition. Among the motives, the strongest is the healthiness. In the same time due to positive attitude toward forest fruit consumption, a forest fruit products business, well marketed, could have high chances of success and will help to the development of rural mountain area.*

**Keywords:** forest fruits, attitudes, urban inhabitants, Theory of Planned Behaviour

### **INTRODUCTION**

In the last twenty years researchers discuss the idea to develop rural areas where possible through non-wood forest products [4, 7, 8, and 12]. In Romania, non-wood forest products are represented mainly by forest fruits and mushrooms.

General fruit consumption is regarded worldwide as good for health. However WHO statistics show a small intake of fruits and vegetables and recommend a daily consumption of 400g of fruits and vegetables [13].

Therefore in Romanian rural areas could be settled plants to process forest fruits in different products.

However, to help entrepreneurs, a primary research is necessary to determine the attitudes of consumers toward forest fruit consumption, considering that attitudes are difficult to change and a company should usually fit its products into existing attitudes [9]. Therefore the aim of the present research is to determine the attitudes of consumers from Cluj Napoca city toward forest fruit consumption.

### **MATERIAL AND METHODS**

#### **Sample**

The study was applied on 243 forest fruit consumers from Cluj Napoca city in October 2009 and it is part of a PhD thesis [5].

For choosing the sampling method the following were considered:

- the lack of possibility to access the data base of Cluj Napoca inhabitants in order to realize a statistical sampling,
- limited financial resources,
- the length of the questionnaire.

Thus the sampling method for the research was a non-probabilistic one, namely the conventional sampling. The convenience sampling means to choose any person who corresponds to target characteristics [11] at the discretion of the interviewer [10].

Also it was taken into account the quota method considering the statistics provided by National Institute of Statistics. The following characteristics were taken into account: gender and age groups of urban population.

In these terms of convenience sampling, the sample was not determined by formula and it was considered a threshold of 250 respondents, finally realizing 243.

#### **Theory of Planned Behaviour**

The Theory of Planned Behaviour (TPB) was developed on the idea that "human social behaviour can best be described as following along lines of more or less well-formulated plans." [1]. According to this theory [2] there are three conceptually independent determinants of intention to perform the

behaviour: the attitude toward the behaviour, the subjective norm and the perceived behavioural control. In the present study are analyzed only the attitudes.

The attitude toward the behaviour (A) refers to the degree to which a person has a favourable (good, safe, healthy) or unfavourable (bad, unsafe, unhealthy) evaluation or appraisal of the behaviour in question [2]. Attitudes (A) are calculated by multiplying the behavioural belief (bbi), which is the probability that performing certain behaviour will lead to the outcome in question and each expected outcome (ei) of behaviour:

$$A = \sum bb_i * ei_i \quad [2]$$

The questions to determine attitude are presented below. The questions were measured on a 5 point Likert scale.

#### Behavioural beliefs

To what degree do you agree with the following statements?

Totally not agree- not agree- neutral- agree- totally agree

- bb1 - Eating fresh forest fruits is not safe
- bb2 - Eating fresh forest fruits is healthy
- bb3 - Fresh forest fruits have a good taste
- bb4 - Fresh forest fruits are ecological products
- bb5 - I am very satisfied when I can eat fresh forest fruits

#### Beliefs' attribute

To what degree do you find the following aspects important when making fresh forest berries choice?

Totally unimportant- unimportant- neutral- important- very important

- e1 - Food safety
- e2 - Healthiness
- e3 - Taste
- e4 - The Eco-label
- e5 - Consumption satisfaction

## RESULTS AND DISCUSSIONS

The study was realized on 243 urban consumers from Cluj Napoca, Romania, in October 2009 using the convenience sampling. From 243 questionnaires applied only 229 (94%) were

complete and could be used further for the analysis. The mean age of the respondents was 37 years, SD= 14.57 and 150 of them are women.

Demographic data of the sample are presented in the chart below:

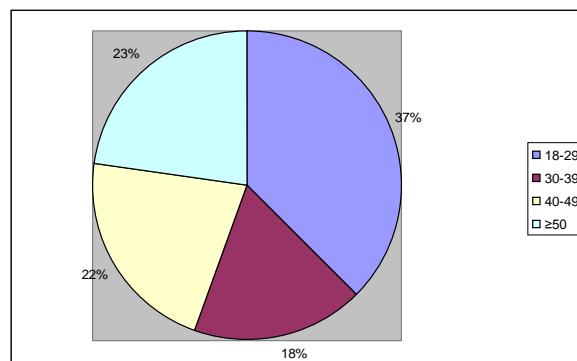


Fig. 1 Respondents age on age groups

It is observed that 37% of respondents are in the age group 18-29 years, 23% of them belong to the group of people over 50 years, 22% for those between 40-49 years and 18% of those between 30-39 years. The overrepresentation of young people aged between 18-29 years is due because the questionnaires were applied also on students from the University of Agricultural Sciences and Veterinary Medicine Cluj Napoca. Also the small representation of people over 50 years is due to the fact that some of these respondents did not had the patience to complete the questionnaire to the end.

As presented in the chapter of material and method to determine urban consumers' attitudes towards forest fruit consumption, first were determined the beliefs' attributes, meaning the main issues taken into account when choosing and eating berries. Items included in the study were food safety, healthiness, taste, eco-label and consumption satisfaction.

Consumption satisfaction is important and very important for more than 88% of consumers, and for approximately 2% is not important. The eco-label is considered by more than 55% of respondents, another 30% do not know if it is important for them and for the other 15% it is not considered as important when buying berries. Berries taste is important and very important for more than 94% of respondents, 4.8% are not decided, and 0.4% of them believe

that the taste is not an important thing. Regarding the healthiness, this is an aspect about are interested almost all respondents, meaning over 97%. Food security is considered important for over 92% of consumers, for about 1% it is not important, and the other over 6% answered “I do not know”

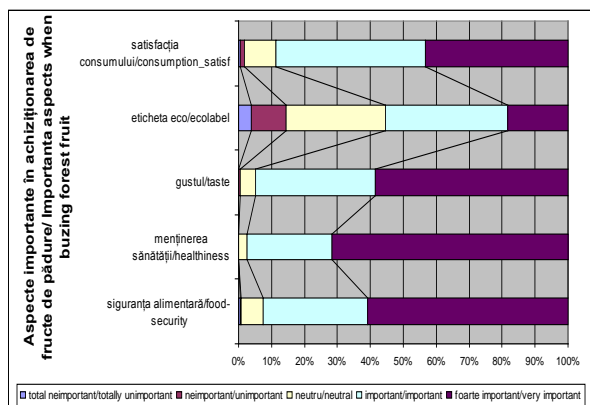


Fig. 2 Important aspects when buying fresh forest berries

These results show that healthiness is an important issue for almost all urban consumers, with a few undecided and is the most important aspect to be taken into account when buying berries. This attribute is followed in order of importance by taste, food safety, consumption satisfaction and the eco-label. Even if organic label seems the least sought when buying fresh berries, it is nevertheless important for more than half of respondents. Even if generally in Romania forest fruits are not packed and therefore there is no label for these fruits, the fact that the forest fruits are bought usually from farmers markets is due to the faith that the fruits are 100% natural and organic.

The questionnaire included also the behavioural beliefs presented in the material and method part. The answers of the consumers are presented in the chart number 3.

With the statement “I am very satisfied when I can eat fresh forest fruits” over 88% of respondents were agree and totally agree, over 10% chosen the „neutral” variant, and about 0.8% were not agree with the statement.

With the fact that “forest fruits are ecological products” are agree over 81% of consumers, over 12% are not decided, and almost 6% are not agree.

The good taste of forest fruits is appreciated by over 97% of respondents, 2% do not know and

0.4% consider that these fruits do not have a good taste.

With the statement “eating fresh forest fruits is healthy” are agreeing also over 97% of Romanian urban consumers, over 1% are not agree and 1% do not know. The same favourable beliefs resulted in a study realised on the Canadian consumers. Canadians believe that forest fruits provide more health t cultivated fruits [3].

„Eating fresh forest fruits is not safe” is a statement with which more than 75% of the consumers were not agreed, 12% were agreed and almost 12% choose the variant “I did not know”.

The analysis of behavioural beliefs shows that the respondents have good and very good opinions about forest fruit consumption in the majority of cases. Also forest fruits are considered good for health, tasty, organically products and safe for consumption.

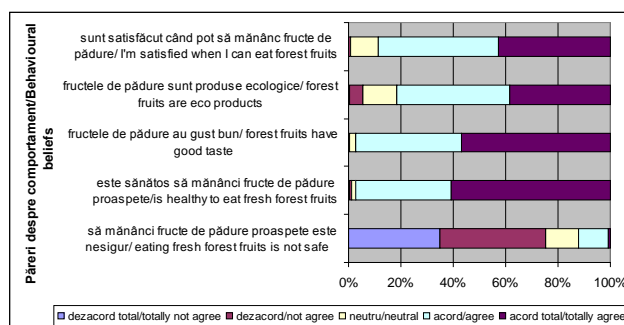


Fig. 3 Behavioural beliefs about forest fruit consumption

After analysing the components of the attitude, the generally attitude was calculated according to the TPB, using the formula presented above. Considering that each element was measured on a five point Likert scale (from 1 to 5) and that there are in the present study five pairs of behavioural beliefs and expected outcome, it means that the lowest value for the attitude toward forest fruit consumption is 5 and the highest 125.

In the chart number 4, where X axis represent the respondents and Y axis represent the level of the attitudes, it can be observed that urban consumers’ attitudes are high, the smallest value being 51 and the highest 125.

Also in a study realised in UK were revealed high attitude levels toward forest fruits taste and healthiness [6].



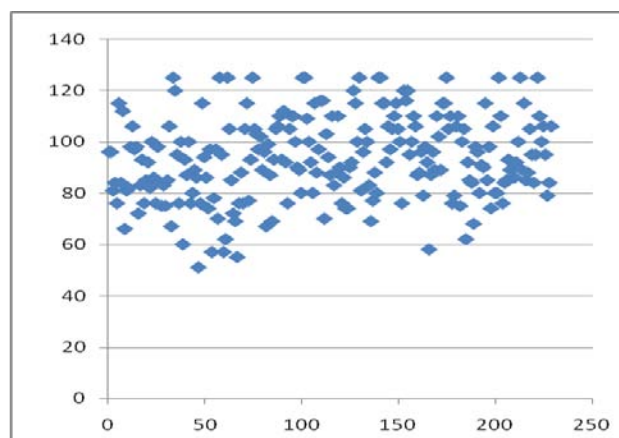


Fig.4 General attitudes toward forest fruit consumption  
X- respondents, Y- attitudes level

## CONCLUSIONS

1. Cluj Napoca forest fruit consumers have mostly high attitudes levels toward general aspects of forest fruit consumption. In the present study the specific attitudes referred to safety, healthiness, taste, to the fact of being organic, and to consumption satisfaction. Also in other countries the surveys revealed same high attitudes.
2. The results show that forest fruits are bought and eaten mainly because there are good for health and have good taste.
3. This means that a campaign to increase fruits consumption for Romanian urban inhabitants could take into account these positive attitudes, or favourable evaluations toward forest fruit consumption.
4. Also potentially forest fruits businesses developers can take advantage of these attitudes and highlight these proprieties for their products realised with forest fruits.

## REFERENCES

- [1] Ajzen, I., 1985, From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckman Eds., Action-control: From cognition to behavior, Heidelberg, Germany: Springer, 11-39
- [2] Ajzen, I., 1991, The theory of planned behaviour, Organizational Behaviour and Human Decision Processes, 50, 179-211
- [3] Centre for Non-Timber Resources. (2008). *Shop the wild 2008. Consumer survey*. Royal Roads University,

Victoria, BC, Canada accessed at [www.buybcwild.com](http://www.buybcwild.com), 18.08.10

- [4] Chamberlain, L., Bush, R., Hammett, A.L., 1998, Non-Timber Forest Products - The other forest products, Forest Products Journal, 48(10): 10-19
- [5] Cofari (Man) Adriana, 2010, Managementul și marketingul produselor forestiere nelemnoase, teză de doctorat
- [6] Cox, David N., Annie S., Anderson, Lean, Michael EJ., Mela, David J., 1998, UK consumer attitudes, beliefs and barriers to increasing fruit and vegetable consumption, Public Health Nutrition, 1:61-68
- [7] Emery, Marla, 2001, Who knows? Local Non-Timber Forest Product knowledge and stewardship practices in Northern Michigan, Journal of Sustainable Forestry, 13 (3/4), 123-139
- [8] FAO, 2008, Principal activities, accessed at <http://www.fao.org/forestry/nwfp/6406/fr/>, 17.08.10
- [9] Kotler, Ph., Armstrong, G., 1990, Marketing. An introduction, Prentice Hall Inc., New Jersey, 158
- [10] Malhotra, N.K., 1999, Marketing Research. An Applied Orientation. Third edition, Prentice-Hall International, Inc., New Jersey, 335
- [11] Pop D. Marius, 2004, Cercetări de marketing, Alma Mater, Cluj Napoca,
- [12] Robbins, P., Emery, M., Rice, J., 2008, Gathering in Thoreau's backyard: nontimber forest product harvesting as practice, Area, 40(2), 265-277
- [13] World Health Organization & Food and Agriculture Organization, 2002, Diet, Nutrition and the Prevention of Chronic Diseases, Technical Report Series no. 916, Geneva: WHO.

## DURABLE DEVELOPMENT AND DIVERSIFICATION OF ECONOMICAL ACTIVITIES IN THE ROMANIAN RURAL COMMUNITIES

Nicoleta MATEOC-SÎRB<sup>1</sup>, Gheorghe Csaba TOTH<sup>2</sup>, T. MATEOC<sup>1</sup>, Gheorghe Sebastian SÂRB<sup>3</sup>, Dorina ȚĂRĂU<sup>4</sup>

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine of Banat, Timisoara, Calea Aradului 119, 300665, Phone: 0744604349, Email: mateocnicol@yahoo.com

<sup>2</sup>Agricultural Society, Pecica, Arad, Romania

<sup>3</sup>University of Oradea

<sup>4</sup>Payment Agency for Rural Development and Fishing

**Corresponding author:** mateocnicol@yahoo.com

### Abstract

*The rural territory of Romania covers approximately 90% of the country's territory and gathers 45.1% of the population (9.7 million inhabitants). The medium density of the population from rural territories remained relatively constant throughout the years (about 45.0 inhabitants / km<sup>2</sup>). Romania's population has a more pronounced level of rurality in comparison with other E.U. countries, where the rural establishments are less populated and at a reduced scale. Therefore we consider necessary paying more attention towards village development and Romanian rural economy diversification. Even though the Romanian rural space shelters a rich culture, with a strong traditional character that differs from one region to the other, it does not manage to fully explore the value of its resources, perpetuating a paradoxical state of poverty due to lack of attractiveness and promotion of rural areas. In the present paper the authors synthesize a diagnosis of the rural areas in our country and try to emphasize the main issues with which the rural inhabitants are confronted with nowadays, trying to bring into discussion at least partial resolving solutions for these issues.*

**Key words:** durable development, diversity, rural, economy

### INTRODUCTION

Durable development is a long term process that cannot be reached during one generation, which means that special efforts are needed in order to accomplish this difficult process.

Durable development must regard the following mandatory principles:

- Regeneration of natural resources and preservation of their natural stock at an acceptable level;

- reducing pollution at a „minimum safety level”

- avoiding irreversibility of the effects caused by economical processes through:

○ risk prevention oriented strategies;

○ technological development orientation towards environmental protection;

○ institutional change and economical decisions orientation towards environmental protection;

○ income distribution in a reasonable and equitable way.

Considering durable development, the existence of a harmonious relationship between the following elements is imposed:

- **culture**, which determines society's functions and an adequate behaviour for durable development applying ;

- **structure**, which defines the approach of organising the durable development implementation;

- **technology**, which establishes the available and necessary technological means through which durable development can be realised.

Considering architecture and cultural heritage, the Romanian villages display a unique character, differing from region to region, fact which imprints them a specific identity, as to the way of living and turning to advantage local resources.

The Romanian rural space generally includes agricultural activities. In the main, non agricultural activities are based on forestry, processing of food products, small commercial and craftmanship services, mining and energy producing activities that are insufficiently developed.

With the exception of the the mining and energetic industry non agricultural activities are mostly expanded by microbusinesses and small and medium enterprises (SME).

**The rural economy is weakly diversified and still dependent on agricultural activities, which leads to low incomes for the undertakers in the rural environment.**

Agriculture, until recently the initial sector of economy, was the main provider of work places in Romania's economy.

## MATERIAL AND METHODS

In identifying the possibilities of development and the ways of stopping the Romanian village degradation we appealed to: studying the existent activities in rural establishments, analysis of their development stage and rural development politics analysis, through which financial support for rural development is aimed, in the 2007-2013 period, by E.U. and the government of Romania.

## RESULTS AND DISCUSSIONS

At the present day most rural inhabitants are involved in agriculture, forestry and aquaculture (64,2%), while only 18,7% are working in the secondary sector and 17,1% in the third sector.

The quality of the Romanian agricultural space forms the natural premises in the competitiveness of agricultural products. The main agricultural products that are obtained in medium technological conditions are perfectly competitive with similar products from other countries and at most brands the quality is superior.

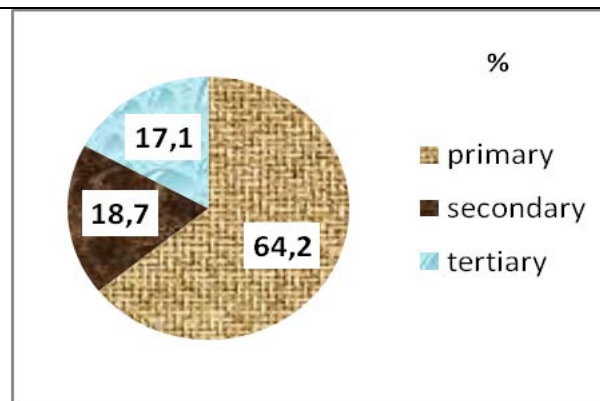


Fig.1. Structure of rural population by the activity sector

Table 1. Evolution of the Romanian land fund, by land use categories

Specification	2008		2009	
	thousan	%	thousan	%
Agricultural	14702,3	100	14705,3	100
Arable	9415,1	64,03	9384,4	64
Pastures	3333,0	22,66	3380,7	23
Meadow	1532,4	10,42	1526,7	10
Vineyards	214,5	1,45	214,4	1,5
Orchards	207,3	1,40	199,1	1,5

Source: Data processed in according to the MARD, Ministry of Agriculture and Rural Development;

**Agriculture and forestry, by tradition,** form important branches of the Romanian economy through the dimension of the agricultural surface (14,7 million hectares), the timbered surface and other areas with forest vegetation (6,7 million hectares), as well as the weight factor represented by the population occupied in agriculture and forestry (26%) from the total rural population.

Distribution of total area after the land use categories shows that the arable land occupies about. 64% of agricultural area, the 3<sup>rd</sup> part of the surface 4,8 mil ha, is occupied by pastures and meadows, orchards and vineyards and is approx. 3%.

Nearly 80% of the useful agricultural surface (UAS) of Romania is split in two categories of farmers (80% of the total exploitations), formed from small dimensioned exploitations, under 5 ha and a **very small group of exploitations with dimensions of**

over 50 ha (13.830, which exploit 40% of UAS).

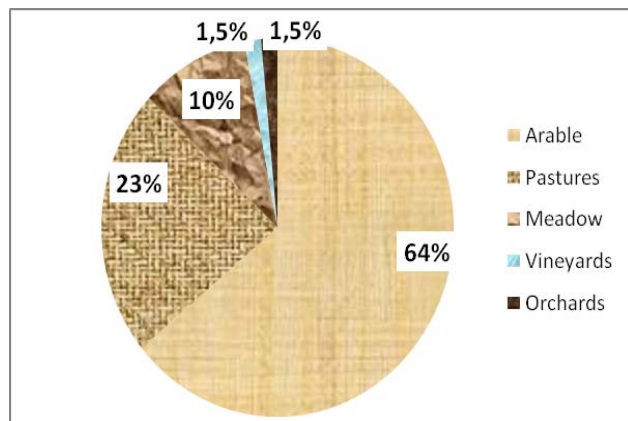


Fig. 2. Romania's agricultural surface structure by the categories of land use

The rest of 20% of UAS is exploited by an intermediant segment, which is represented by **exploitations with dimensions ranging from 5 to 50 ha**. This segment is reduced in comparison with other E.U. countries and is in need of development. Small farms are mainly represented by individual exploitations.

Nowadays we can be aware that agriculture, as a branch of national economy, registres a pronounced decline.

The work force employed in agriculture, in Romania increased from 27.5% in 1989 to 40,8% in 2000, followed a decreasing trend up to 24% in 2010.

In the present, in Romanian agriculture, working 24% of the employed population, compared to 5%, in EU-25.

We also notice that young farmers (under 40 years) represent less than 10% of the total farmer population, exploiting a 10% percentage of the useful agricultural surface (UAS). At the other end, farmers that are above the age of retirement (over 65 years) represent 43% of the total farmer number and exploit 31% of the UAS.

In order to consolidate commercial agricultural exploitations investments are required, as well as applying new technologies that will improve the quality of the obtained products in order to reduce production costs and increase competitiveness so that they can be produced at communitary standards, in market and competitive

conditions, but also for environmental protection, hygiene and animal welfare.

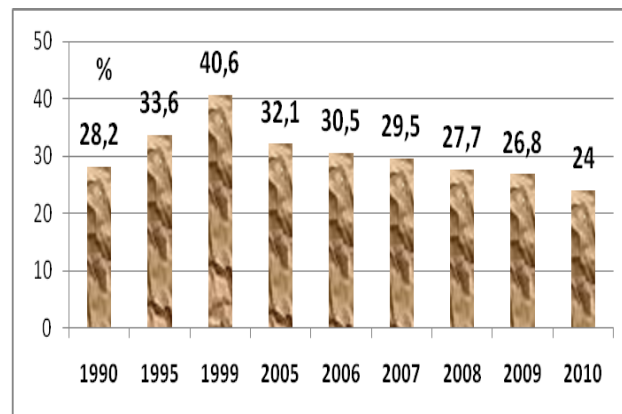


Fig.3. Evolution of employment in agriculture between 1990-2010

Table 2. Structure of farmers by age group

Age category	Total farmers (%)	SAU (%)
under 40	<10	10
40-65	47	59
over 65	43	31

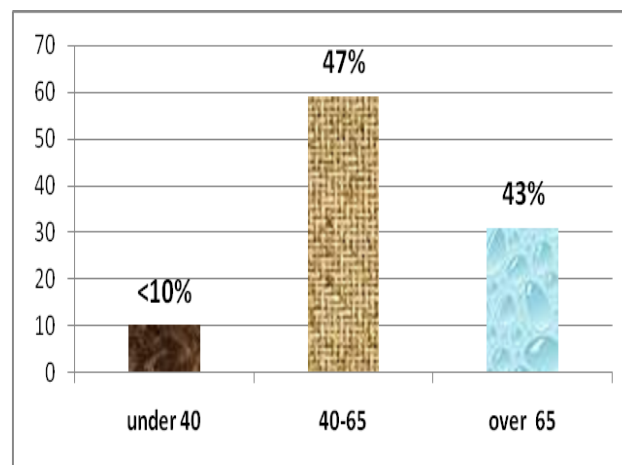


Fig. 3. Structure of farmers by age group

**Business development** in Romania presents large differences between regions and considering Small and Medium Enterprises (SME). Contractor development is weakly represented in rural areas as an effect of insufficient exploitation of material resources, incondite education, a low level of utilities as well as a phenomenon of mass migration towards the urban or externaly towards other states of the world, especially when young inhabitants are considered. SME analysis in rural areas points out their reduced capacity to respond to requests related to providing work

places for the population in the rural environment.

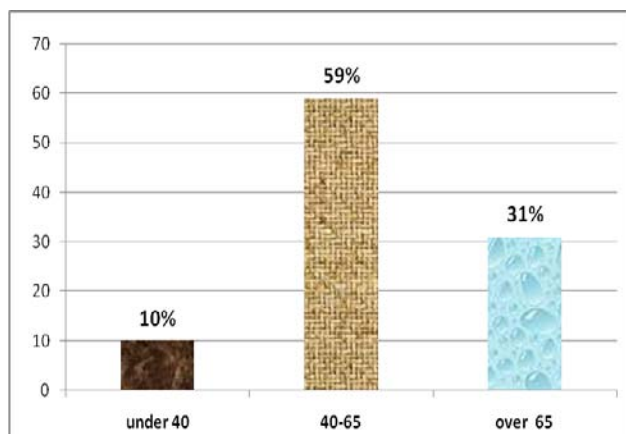


Fig. 4. SAU structure of farmers by age groups

**From the total of SMEs more than 50% are involved in commercial activities.** The explanation for this strong orientation towards commerce is determined by: a shorter period for recovering investments, lack of capacities and abilities, impossibility of developing production activities due to lack of capital for advanced techniques and technologies. Therefore, the objective of supporting SMEs in other domains appears as a necessity, especially when considering they can have a positive impact on the level of rural economy, mainly into the domain of processing agricultural products.

Agricultural products processing and activities are imposed by agricultural producers in SMEs, with the purpose of adding value to the agricultural production in conditions of increased economical efficiency.

At a regional level, **rural tourism development** greatly depends on the quality and existence of touristical boarding house pensions and on the presence of various types of activities, folklore, the existence of ethnographical regions and practicing agriculture and winegrowing (agrotourism). Religious tourism is specific for Bucovina, architectural and ethnographical tourism for Maramures, leisure, cultural, culinary, art and wine tourism for Transylvania and fishing at the feet of the Carpathian Mountains. Rural tourism and agro-tourism (specifically linked to farm activities) are

activities that generate alternative incomes, which offer development possibilities for the Romanian rural space, because of unique landscapes, vast semi-natural areas and inborn hospitality of the rural environment inhabitants. We mention that in this domain the rural tourism and agrotourism activities in Romania are poorly advertised by tourism agencies for both Romanian and foreign tourists.

The rural areas in Romania are affected by the **significant lack of infrastructure** and its deficiencies, which affects economical development and life quality. The most important needs are related to: roads, drinkable water delivery, public sewage network, garbage management, electric energy, thermic energy, internet access, education, access to medical services.

Major difficulties in the rural environment are linked to accessing **medical and educational services**. The population's accessibility to basic education and healthcare is restricted in many areas by precarious transport services, with a negative impact on the urban – rural flux of teachers and doctors, but mostly in the development of production activities and attracting investors.

**Adequate roads represent a essential condition for economical development along with other domains of human and social development.**

In general, for pointing out discrepancies, differences are quantified by using macroeconomical indicators such as total PIB or PIB per inhabitant, calculated at a regional level. For the present period we consider that the rural development programs should be created so that they:

- begin at a regional level and encourage local initiatives on the base of internal development based on available resources;
- place man and its issues in the center of concepts and decisions;
- protect and preserve the positive values of rural society, especially the ones in traditional family life, with the purpose of integrating youth in community life;
- build up and consolidate community life;

- preserve and promote cultural and historical particularities of the rural region;
- encourage economical activity diversification;
- encourage the rural population's relations with the rest of society;
- determine the growth of quality life for the rural population.

**Inhabitans can currently diversify activities through craftsmanship, services or other nonagricultural activities, financing from funds assigned through the National Plan of Rural Development 2007-2013.**

Within measure **312 Support for creating microenterprises** included by addendum 3 **“Enhancing life quality in rural areas and diversifying rural economy”** it is offered to the inhabitants the possibility to accomplish the following types of investments:

**Investments in nonagricultural productive activities**, such as:

- light industry (leather articles, footwear, wool, fur, knitted articles, household usage products, odorant products, etc.);
- wooden products industrial processing activities – starting from lumber state (e.g.: furniture);
- fine mechanics, assembling vehicles, tools and household articles, producing wrappers, etc.

**Investments for developing craftsmanship**, handicraft activities and other nonagricultural traditional activities with local specificity (processing iron, wool, pottery, embroidery, making traditional musical instruments, etc.), as well as marketing them (small retail stores with their own products, obtained through these activities).

**Services for the rural populations**, such as:

- tailoring, barbering and shoemaking services;
- internet connection and broadcasting services;
- machanical, transport (other than obtaining means of transport) services, fito-sanitary protection, veterinary and sanitary services and animal artificial insemination;
- autovehicle reparation services, tools and household objects.

**Investments in producing reusable energy**

- aquiring equipments for producing energy from other renewable sources than bioconsumables.

## CONCLUSIONS

• After 1990, the Romanian village, which was already committed to communist transformations and systematizations, continued the process of degradation which continues nowadays in an accelerated rythm even if Romania has been a member of E.U. since 2007.

• The extinction of the Romanian village as a traditional form of establishment, with its particularity, will lead to the identity loss of the Romanian people and our identity as a nation.

• The manifestation of the globalisation as well as the effects of the economical crisis will also lead to the decay of the rural world because manufacturer farmers tend to become supermarket consumer farmers.

• Rural economy presents significative differences according to the country's regions, specific social, demographical and economical traits. This differentiation is visible mostly regarding the low income level in the rural Romanian space and is reflected through a low living level of the population and a lack of alternative income resources.

• Statistical data reveals that **agriculture, food industry and forestry are of a primordial importance for the rural economy**. The presence of non-agricultural activities, linked to the primar sector, and mostly the exploitation and processing of natural resources is irrelevant in economical terms.

• Restructuring agriculture will have a distinct impact upon rural economy in general, considering that agriculture continues to remain the most important activity in the rural space and an essential income source for households.

• The active population in the rural space, 46.3% of the rural inhabitants, can contribute to sustaining economical growth in rural areas if the adequate stimulation methods will be identified, imposing the creation of working

places in the non-agricultural sectors, which will absorb the work force released from agriculture.

- Between 2007-2013 Romania is benefiting from financial support assigned by the European Union through its policy worth over 8 million euro for investments in agriculture and rural development.

- The purpose of rural development programs firstly concerns creating work places in the rural environment, in units of processing agricultural products, SMEs or other nonagricultural activities.

## REFERENCES

- [1] Mateoc-Sîrb, Nicoleta, (2002), Dezvoltarea rurală și regională în România, Editura Agroprint, Timișoara;
- [2] Mateoc-Sîrb, Nicoleta, Man, T.E., (2007), Dezvoltarea rurală și regională durabilă a satului românesc, Editura Politehnica, Timișoara;
- [3] Otiman, P.I., coordonator și alții, (2006) Dezvoltarea rurală durabilă în România, Editura Academiei Române, , București;
- [4] \*\*\* - Programul Național de Dezvoltare Rurală 2007-2013
- [5] \*\*\* - INS – Anuarul Statistic al României, 2009.

## ESTIMATES ON THE ECONOMIC EFFICIENCY AND LEVEL OF INTENSIFICATION OF CEREALS AND LEGUMINOUS GRAINS (EXCLUDING CORN) IN THE REGIONAL ASPECT

**Diana MEMET**

The State Agricultural University of Moldova, 44, Mircesti st., MD- 2049, Chisinau, Republic of Moldova, Phone: +373 22 43 25 85, Fax: + 373 22 31 22 76

**Corresponding author** : diana.cotruta@mail.ru

### **Abstract**

*The purpose of this work is the research of intensity level and economic efficiency of cereals and leguminous grains intensification (without corn) through the value indicators (from the lack of data in specialized forms of consumption to production in natural expression) in the agricultural enterprises in regional aspect from Republic of Moldova. For this were used the following methods: observation, aggregation and grouping, comparison method, and so. The results obtained in the base of data analysis in the average of the years 2006-2009 allowed us to conclude an essential variation in the level of intensity in the agricultural enterprises depending on region of development. Economic efficiency of intensifying of the grain production and leguminous grains (without corn) is characterized by lower level. The yields of resources are at a lower level.*

**Key words:** *intensity, intensification, efficiency, resources, yields*

### **INTRODUCTION**

The cereals and grain vegetables are the most important agricultural crops cultivated in the all developing regions from Moldova Republic. The value of these ones is not limited to the fact that the cereals are the principal source in nutrition, but also results from the importance of the cereals inclusion in the rotation, the soil cleaning of the weeds, providing the improvement of the agricultural lot structure, etc.

The transition to the intensive preponderant development is considered as a primordial condition of the stability and maintaining high rhythms of economical increase of the cereals and grain vegetables production.

### **MATERIAL AND METHODS**

In the analysis of level and economical efficiency of the production intensification of the cereals and vegetables for grains there were utilized the agricultural enterprises data from Moldova Republic using the valuable and natural indicators. For the analysis they were utilized relative and middle sizes, the grouping method, comparative method, indexes method etc.

### **RESULTS AND DISCUSSIONS**

The climatic conditions from Moldova republic correspond largely to the biological requirements of the cereals and grain vegetables and as a result one may obtain high harvests of superior quality.

The sowed surface with cereals varies from a year to year, from 1076 thousands ha in 2001 years till 1005 thousands ha in 2008, its weight in the total sum of the crops is of 67 percent. The total production of cereals and grain vegetables in 2008 year reached the highest level the latest 8 years – 3169 thousand tons, with a productivity at 1 ha of 31, 5 q, by inhabitant the cereals constituted 888 kg in comparison with 252 kg in 2007 year, the unitary cost of the cereals and grain vegetables (without maize) made up 1038 leis for one ton and the productivity level being of 27, 7 percent [1, p. 322 -340].

The essential branch of the agrarian sector remains to be the cultivation of the vegetal products, whose value (in comparable prices of 2005 year) constitutes 67 percent – 74 percent in 2008 year from the value of agricultural production and wick is consequently being developed in a particular



rhythm in concordance with the conditions of the market relations in order to satisfy at an maximum level the consumption demands of the population with food products, to provide the necessary of forage for animals and raw material for the processing industry as well as the providing availabilities for the exportation. The analysis of the dynamics of the production consumptions level in calculation at 1 ha of cereals sown fields and grain vegetables points out the increase of these ones from 1605 leis / ha in 2001 up to 2272 leis / ha in 2009, that is the increase of more than 40 percent, but in comparison with 2008 just 2 times more. It is remarked a tendency of increasing of the principal types of consumptions, like: the labor payment with contributions for the state social insurance and compulsory medicine with approximatively 38 percent till 2009 year and whose the weight constitutes in the total consumptions 10 - 18 percent; the value of the seeds increased with 45 percent and the weight in the total consumptions constitutes 15 - 20 percent; the value of the chemical and natural fertilizers raised with a higher rhythm starting with 2005 year and in 2008 year made up 4, 5 lei / ha, the weight of this one in the total consumptions constitutes 7, 7 percent in 2001 year with an increase up 13 - 14 percent the latest years.

The material consumptions at 1 ha of cereals and grain vegetables sown fields in average in republic in the agricultural enterprises increased in 2008 - 2009 years in comparison with 2006 - 2007 from 2204 lei / ha till 2757 lei / ha, or with 25 percent. But in regional profile the level of increasing is diverse (Table 1).

Table 1. The level of material consumptions in account at 1 ha of sown fields on producing cereals and grain vegetables (without maize) in the agricultural enterprises in regional profile from Moldova Republic, in average of 2006 - 2009 years

The developing region	Consumptions at 1 ha crops, lei			
	from which:			
	Total	The labor payment with contributions for the social insurance	Seeds	Chemical and natural fertilizers
Chisinau city	2299, 7	415, 6	351, 9	319, 9
North	2648, 6	273, 9	355, 0	377, 6
Center	2407, 6	261, 1	367, 9	283, 2
South	2363, 4	241, 5	314, 0	304, 6
UTA Gagauzia	2478, 6	305, 9	350, 7	265, 3
In average, in agricultural enterprises in Republic	2504	268	345, 6	323, 5

Source: the author accounts on the basis of the specialized forms of the agricultural enterprises from Moldova Republic

The data of the table 1 demonstrate that the highest level the material consumptions at 1 ha of crops is possessed by the agricultural enterprises from Chisinau city, followed by the North region. In the South regions, Center and UTA Gagauzia this indicator is more reduced as average in our republic that Constitutes 2504 leis / ha.

The intensification process of the production producing is not reduced to the analysis of the intensity level. For the phytotechnical area it is important not only the volume of the applied means in the development of the production, but also the rational utilization of these ones, that is it is necessary the permanent comparison of the consumptions and supplementary expenses with the obtained results so that each consumed lieu would provide a maximum compensation.

For the characterizing of the intensification of cereals and grain vegetables production it is necessary the indicators determination that characterizes the economical efficiency of this one, that points out the means with help of which the production was obtained and which is the level of the compensation of the applied means in intensification.

Table 2. The indicators of the economical efficiency of the intensification of the cereals and grain vegetables production (without maize) in the agricultural enterprises in regional profile from Moldova Republic, in the average of 2006 – 2009 years

The development region	Productivity at 1 ha, q	Raw profit estimated in lei		Productivity level, % percent
		1 ha of sown fields from on which the production was sold	1q of sold production	
Chisinau city	24, 2	17, 0	0, 67	0,5
North	23, 6	525	22, 2	20,1
Center	18, 9	255	13, 4	11,3
South	20, 6	386	18, 7	17,3
UTA Gagauzia	19, 8	134	6,7	5,5
In average on the republic enterprises	21, 4	375	17,5	15,5

Source: the author estimations on the basis of the specialized forms of the agricultural enterprises from Moldova Republic

The data of the table 2 point out that the economical efficiency of the cereals production in the enterprises of Chisinau city is the most reduced although the productivity at 1 ha was more increased with 13,4 percent than the average.

The enterprises from Chisinau city are not specialized in the production of the cereals and grain vegetables [2, p. 99]. The high level of the consumptions at 1 ha did not contribute to the reduced sales costs that influenced on the profitability diminution. A highest row profit at 1 ha of sown fields from on which the production was sold and at 1q of sold product was obtained in the enterprises of North and South regions. In these regions at each consumed 1 lei was obtained 20,1 bani and 17,3 bani profit, respectively. But also such compensation levels of consumptions we consider them being insufficient for an enlarged reproduction.

## CONCLUSIONS

1. In the dynamics of 2001 – 2009 years the intensity level of cereals and grain vegetables production (without maize) has an increasing tendency.

2. The level of the cereal production intensity in regional profile is differentiated but the highest one is possessed by the enterprises from Chisinau city and North region.

3. The economical efficiency of the production intensification is at a low level, each 1 leu consumptions is compensated with 15,5 bani profit and only in the enterprises of the North region the level of the productivity is of 20,1 percent.

4. The base of the intensification of the cereals and grain vegetables production remains to be the application of new modern techniques and technologies, the utilization of the irrigations systems, the soil fertilization etc.

## REFERENCES

- [1] Statistical year – book of Moldova Republic, 2009, Chisinau, Statistics, p. 576.  
 [2] Timofti Elena, Popa Daniela, 2009, The efficiency of the economical mechanism in the agrarian sector, Chisinau, IFES, p. 343.

## ACCOUNTS ON THE ANALYSIS OF THE INTENSIFICATION PROCESS OF THE PRODUCTION OF GRAPES IN AGRICULTURAL ENTERPRISES IN DEVELOPING REGIONS OF REPUBLIC OF MOLDOVA

Diana MEMEȚ<sup>1</sup>, Cristina TIMOFTI<sup>2</sup>

<sup>1</sup>The State Agricultural University of Moldova, 44, Mircesti st., MD- 2049, Chisinau, Republic of Moldova, Phone: +373 22 43 25 85, Fax: + 373 22 31 22 76

<sup>2</sup>Moldova State University, 60, Mateevici A. st., MD-2009, Chisinau, Republic of Moldova, Phone: +373 22 57 74 60, e-mail: cristina\_timofti@yahoo.com

**Corresponding author:** diana.cotruta@mail.ru

### Abstract

*In the present work was studied the intensification process of the production of grapes using the natural and value indicators system. For this study was taken into consideration the specializing of enterprises in the production of grapes. In the analysis was used the economic-statistical methods that: observation, method of medium sizes, aggregation and so. The analysis in the base of average data of the years 2006-2009 indicates an essential variation so the intensity level, how the intensification of economic efficiency in developing regions Center, South, UTA "Gagauzia" and Chisinau municipality. The intensity level is a lower level and used resources are used efficiently.*

**Keywords:** intensification, resources, yields, specialization, intensity, efficiency

### INTRODUCTION

The principal direction of developing of the viticulture branch of Republic of Moldova is the grapes production of the technical varieties (about 90 per cent), table (about 10 per cent) with the majoration of the last up 15 per cent in 2015.

The conditions of climate, relief, soil as well as local traditions of certain developing regions from our republic determined the specialization concerning the cultivation of the vine and manufacturing of the products from the grapes. The vine is one of the crops which in the conditions of the hilly relief, especially of the developing region of the Centre make possible an efficient capitalization of the agricultural lots in slope with the angle of inclination bigger than 5° on which the cultivation of other agricultural cultures is not profitable.

At the first of January 2009 the viticulture patrimony of our country was constituting 155,7 thousand ha, from which 147,4 thousand ha or 94,7 per cent was in the possession of the private owners but the rest – 8,3 thousand ha (5,3 per cent) in the public property. [1]. The apogee of the development

of the vitivincultural branch was reached in the period of 1981 – 1985 years, when by the size of fruit plantations (246 thousand ha) the total harvest of grapes, the productivity at 1 ha as well as by the volume of the wine products the Republic of Moldova occupied the 6<sup>th</sup> place in the world after Italy, France, Romania, Spain and Portugal. It allowed to our republic to become a producer of qualitative wines and a recognized exporter of viticulture and wine products abroad.

The negative processes of the transition to the market economy, the social and economical events and the natural disasters affected seriously the viticulture plantations of the republic.

In comparison with 1981 – 1985 years the surface of the vine plantations was reduced with 98,6 thousand ha or by 37 per cent.

The total volume of clearing of the vineyards surpasses the plantation surface of new vineyards of approximatively twice.

### MATERIAL AND METHODS

In the research there were utilized data from the Statistic Year-book, the specialized forms

of the agricultural enterprises. For effectuating of a more detailed analysis of the intensity level and of the economical efficiency of the intensifying of the grapes production they were selected the enterprises from the Developing regions of Centre and South. As investigation methods of the problems they were utilized: the method of statistic grouping, the middle and relative sizes.

## RESULTS AND DISCUSSIONS

The analyses of the intensity level on producing the grapes in the dynamics of the 2001 – 2003 years established an increase of the material consumptions in account at 1 ha of fruit plantations in the agricultural enterprises from 4103 leis / ha in 2001 up to 7439 leis / ha, or more than 80 per cent. The consumption for the planting material necessary in the places of cleared vines are at a reduced level and makes up 4 – 31 leis /ha, but the consumptions for chemical and natural fertilizers reach only 160 ~ 343 leis /ha. In regional profile the intensity level of the grapes production is diverse (Table 1).

Table 1. The level of material consumptions in calculation at 1 ha fruit plantations on producing grapes in the agricultural enterprises from Moldova Republic in regional profile, in average of 2006 – 2009 years

The developing region	Consumptions at 1 ha fruit plantations, lei			
	from which:			
	Total	Labor payment with contributions for the social insurance	Seedling material	Chemical and natural fertilizers
Chisinau city	12816	5614	101	109
North	4930	1559	13	332
Center	6825	2679,7	-	225
South	7517	2903	14	274
UTA Gagauzia	5716	2321	32	201
In average at the enterprises of Republic of Moldova	7310	2905	22,3	234

In the enterprises of Chisinau city and South region the material consumptions at 1 ha of fruit plantations are larger than the average on the all enterprises.

It is known that the specialization is realized in the conditions of a certain degree of the production concentration. The emplacement of the vine by regions is based on the natural resources that are firstly the land. The emplacement of the vine show how well or how badly are utilized the territorial economical and natural conditions and that are reflected in the process of specializing and concentration, in the structure of the obtained revenues from the production sale. The weight of the obtained revenues from the sale of the goods – production in the total sum of the revenues constitutes: Chisinau – city – 32 per cent, UTA Gagauzia – 26, 5 per cent, the South – 20 percent, and the Center – 6,2 percent. For the enterprises of the North region are put restrictions. For an absolute and multilateral analysis of the intensification of the efficiency of the grapes production is utilizes the indicators system that corresponds definitively to the principal criterion of the efficiency – the maximum obtaining the finished products of high quality or an unit of surface with labor consumptions and minimum production means (Table 2).

Table 2. Economical efficiency of the grapes production intensification in the agricultural enterprises from Moldova Republic in regional profile

Developing region	The productivity on the 1 ha of fruit plantations	Raw profile calculated in lei		The level of the productivity
Chisinau city	62,4	3149	10,6	5,7
North	22,9	- 366	- 19,5	- 8,2
Center	31,8	356	11,1	5,4
South	33,3	1697	50,9	23,7
UTA Gagauzia	24,8	180	7,2	3,2
In average on the enterprises from Republic of Moldova	33,1	929	28,1	13,4

The source: the author estimations on the basis of the specialized forms of the agricultural enterprises from Moldova Republic

The analysis of the economical efficiency of the intensification of the grapes production (Table 2) demonstrates a higher level in the South developing region.

Just in this region, although the productivity at 1 ha of fruit plantations is on an average level in republic and the middle price of sale of 1q of grapes reached the level of 266,3 leis for an 1 q that is by 11, 2 percent more than the average of the republic. It indicates at a quantity more superior of the product. The unitary cost of a 1q constitutes 214, 4 leis.

Thanks to the fact that rhythm of increasing of the sale price of 1q of grapes is higher than the cost increase, the agricultural enterprises from the South Region obtained a profit at 1q of 50, 9 leis and at 1 ha fruit plantations 1697 leis, but at each one lei consumptions obtained a profit of 23, 7 bani.

But also such a level of resulted obtained indicators is not sufficient for effectuating an enlarged reproduction of the grapes production.

## **CONCLUSIONS**

1. The intensity level of the grapes production is reduced although that during 2001 – 2009 years has an increasing tendency.

2. In regional profile the intensity level of the grapes production is different, but in the enterprises of Chisinau city and in the South region it is raiser.

3. Thanks to the fact that in the enterprises from the South region the resources are utilized more efficient and the rhythm of increasing of the sale price of a 1q of grapes is higher than the rising cost of 50, 9 lei and at 1 ha of fruit plantations – 1697 lei.

## **REFERENCES**

[1]Statistic year – book of Moldova Republic, 2009, Chisinau, Statistics, p. 576.

[2] Timofti Elena, Popa Daniela, 2009, The efficiency of the economical mechanism in the agrarian sector, Chisinau, IFES, p. 343.

## BEEKEEPING PRACTICE OPPORTUNITY IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT OF RURAL AREAS

Virgiliu MOREI

The State Agricultural University of Moldova

44 Mircesti, 2049, Chisinau, Republic of Moldova,

Phone: +373 22 432 432, Fax: +373 22 312 276, E-mail: virgiliumorei@yahoo.com

### Abstract

*The article is focused on determining the economic efficiency and arguing the economic calculations connected with the economic efficiency of the melliferous bees breeding within the agricultural farms of the Republic of Moldova. In order to make an analysis, the author proposed the idea of creating a model apiary breeding 10 and 50 families of bees, the one that can be implemented and managed within a family farm. The economic calculations connected with melliferous bees breeding have been done taking into consideration the following aspects: assessment of the necessary investments, planning the annual revenues from sales, calculation of the annual consumptions and calculation of the final economic results. As a result of practicing the entrepreneurship activity within this apiary designed for melliferous bees breeding, we determined that it is possible to obtain a sufficient annual profit for further development of the mentioned business.*

**Keywords:** beekeeping, honey, production costs, sales income, cost, profitability.

### INTRODUCTION

Beekeeping in the Republic of Moldova is one of the oldest occupations, which developed on these lands due to local natural conditions, favorable climate, topography and vegetation. Melliferous bees make a significant contribution to the agricultural production, primarily due to the pollination of over 150 species of cultivated entomophilous plants (sunflower, buckwheat, rape, fruit trees, fodder crops etc.), which occupy an important territory of our country. An example shows that orchard pollination by bees, leads to production increase by 20-50%, thus the production growth from bee pollination is valued at approx. 2.0 thousand MDL/ bee family. Also, bees are the main pollinator of wild entomophilous flora, ensuring biodiversity development in nature.

In addition, the practice of beekeeping allows to obtain a series of special biological value products both for food and health, such as: honey, pollen, royal jelly, apilarnil, propolis, wax, bee venom.

### MATERIAL AND METHODS

In the present article we will focus on the determination and argumentation of the economic calculations regarding the economic

efficiency of melliferous bees breeding. The author proposed the idea of creating models of apiaries breeding 10 and 50 bee families, that can be implemented and managed within a family farm. The necessary investments to set up these farms and to purchase the production means can be done using personal sources or the ones obtained from another financing source.

### RESULTS AND DISCUSSIONS

The peak of beekeeping development in Moldova was recorded in the period 1975-1985. During this period, due to the fact that this branch was supported morally and materially by the state, the number of bee families reached about 230-250 thousand. The production of honey, obtained from the given number, reached 5,000 tonnes. About 15,000 bee colonies and about 40,000 bee queens have been exported to the ex-Soviet Union territory. [3]

Bees were used to pollinate crops. About 100-120 thousand families pollinated the orchards, sunflower fields, etc., in our Republic, each bee family bringing an income of approx. 15-20 Soviet rubles. Royal jelly, bee venom, propolis and pollen are widely used in medicine. Also, during the mentioned period,

over a thousand of professional beekeepers were trained, using a nursery of queen bee breeding as a theoretical and practical basis.

Since 1990, with the transition to a market economy, radical changes have occurred, that have influenced the working conditions of beekeepers. Most apiaries have been moved to the private sector and were reorganized into joint stock companies. Without the state support, many beekeepers have abandoned the job, looking for an activity that would give them a higher profit. Young professional beekeeper left the country for seeking a more secure income abroad. In the last 25 years, the number of bee families in Moldova reduced greatly.

Currently, about 4,500 beekeepers work in the Republic of Moldova. They breed about 130-140 thousand bee colonies, producing annually more than 3-3.5 tonnes of honey (4 hives on 1 km<sup>2</sup>). This index classifies our country among other developed beekeeping countries. In the last 2-3 years, there was recorded an increase in the number of hives with approx. 10-15 thousand families per year. In the same period, the production of honey produced by a bee family has increased reaching approx. 25-30 kg. This fact shows that local beekeepers oriented to the organization of commodity production apiaries, which makes their work more profitable. Economic analysts say that beekeepers who maintain 200-300 bee families can obtain essential income from the bee products marketing.

Beekeepers in Moldova can be grouped into the following categories:

- Amateur beekeepers – 10-50 bee families – who practice usually a stationary beekeeping at low-cost and who ensure their family consumption with bee products, marketing a surplus which covers their expenses;
- Semi professional beekeepers – 50-100 bee families – who practice beekeeping as a second profession and aim at higher income from honey production; they are concerned with investment and can practice this activity on a large scale;
- Professional beekeepers – over 100 bee families – for this category beekeeping is a business.

In Moldova, most beekeepers 50% maintain

up to 10-15 bee colonies, 35% – between 15-40 families, 10% – between 41-100 families, and 5% – more than 100 families.

Initially, beekeeping can be run as a second occupation, with a small number of hives and many hours spent around an experienced beekeeper. The price of honey has increased in recent years. Thus, the profit in beekeeping business is attractive especially if it succeeds to penetrate the Western markets.

Working with bees is not difficult, but requires strict compliance with certain rules in order to avoid accidents. [1]

Profit increases from year to year, being directly proportional with the number of bees, and depends on weather conditions. In rural areas, beekeeping can be combined with the cultivation of fruit trees, thereby achieving higher productivity of these plantations, up to five times higher.

A producer who sets up such a business may reach an output of 400-500 pounds of honey until the third or fourth year. The turnover depends on the selling price. The profit appears earlier than two or three years. Of course, there is a considerable number of small producers, but only few specialized companies with significant turnover.

Below we present two models of starting a beekeeping business. The first model is for the category of amateur beekeepers – namely those with limited financial resources, who have the necessary surface to keep bees, but can't afford to invest a considerable sum of money from the very beginning. The second model can be used by semi professional beekeepers – people who are willing to invest in maintaining a larger number of bee families and whose work will have as a result a more considerable profit. [2]

#### **I. The apiary model with 10 bee families**

For amateur beekeepers we proposed a model of 10 bee families, which requires the following investments to launch:

**Bee families** – to launch a profitable business, initially it is necessary to purchase about 10 bee families. The initial investment in bee families can then be recovered by selling the newly created families, or by expanding the business. The price of a bee family is about 800 MDL, therefore, the necessary funds to

purchase 10 bee families bees will be 8,000 MDL.

**Apiary** – the place where beehives and the box to storage equipment, inventory, etc. are located. The land may be a private property or can be leased. The apiary can be of stationary or mobile type. In the first case, if it is placed outside of the village, it is necessary to provide the expenses for buying or building a box, a fence, and in the second case – purchase a mobile platform. In the presented case, the apiary will be of a stationary type and nearby agricultural crops (1.5 to 2 km) representing the basis for honey production.

Another element that requires considerable investments are **beehives**. Each beehive is inhabited by a family, so, in order to maintain the volume of selected bees it is required to purchase 10 hives. The average cost of a hive Dadan Blat is 850 MDL, thus the sum invested in the purchase of hives will be of 8,500 MDL.

**Centrifuge to collect honey** – serves to extract honey from honeycombs. It is desirable to use stainless steel centrifuge. Its price is 2,600 MDL.

**Auxiliary inventory** consists of: comb, feeders, fumarate, mask, knife, chisel and beekeeping, collecting pollen filter, honey, collection container, transportation and storage of honey – drums, pots, etc.

The following ideas were taken into account when elaborating the present model:

- ✓ beekeeping will be a family business and there will not be necessary to hire additional staff;
- ✓ honey extraction will be performed twice a year: in early June and in the 1<sup>st</sup> decade of August;
- ✓ every extraction is expected to gain at least 15 kg of honey per family;
- ✓ retail price of a kilogram of honey will be on average 40 MDL;
- ✓ the operation period of beekeeping equipment is about 10 years;
- ✓ the wear is calculated by linear method.

Therefore, in order to increase the number of those 10 bee families, at the initial stage, it will be necessary to purchase the minimum necessary equipment. The total investment will be of 21,460 MDL, and annual depreciation will be of 2,078 MDL (Table 1).

Table 1. Planning for increasing investment and maintenance of 10 bee families

Specification	Unit	Quantity	Unit cost, MDL	Total, MDL	The period of use, years	Annual depreciation, MDL
Bee families	families	10	800.00	8,000.00	10	800.00
Hives with wooden frames	units	10	850.00	8,500.00	20	425.00
Vessels to store honey	units	6	85.00	510.00	20	25.50
Beekeeping inventory of current use (fumarate, mask, gown, fork, cage)	a set	1	175.00	175.00	2	87.50
Beekeeping inventory of long term use (chisel, knife, maker of honey, pollen collector, etc.).	a set	1	425.00	425.00	5	85.00
Stainless steel centrifuge	units	1	2,600.00	2,600.00	20	130.00
Wire and artificial honeycombs	a set	10	100.00	1,000.00	2	500.00
Auxiliary materials (feeders)	units	10	25.00	250.00	10	25.00
<b>TOTAL</b>	×	×	×	<b>21,460.00</b>	×	<b>2,078.00</b>

Beekeeping can generate more revenue sources. The main source is, of course, honey marketing, but additional income can be obtained from the sale of bee swarms produced during the year, agricultural plant pollination services; also the grown honeycombs wax may be sold.

Thus, if the average yield of honey from one bee family is about 30 kg, then 10 bee families collect 300 kg of honey (Table 2). The average price of honey marketing will be of 40 MDL/kg, which allows to obtain the sales revenue of 12,000 MDL.

The second marketed product from beekeeping is the wax. A family of bees produce 200-300 g of wax, commodity that can be sold at the price of 90 MDL per 1 kg, so, from 10 bee families, during one year a beekeeper can get about 2-3 kg of wax.

The beekeeper can also get income from agricultural crops pollination. The controlled pollination of entomophilous crops with the help of bees should be based on mutual agreements between the farmers and beekeepers. The payment of pollination is determined according to a negotiation between the parties,



Table 2

Table 2 .Plan to increase the annual economic performance and maintenance of 10 bee families

Specification	Unit	Quantity	Unit cost, MDL	Total, MDL
<b>I. Sales income</b>	<b>MDL</b>	×	×	<b>13,130.00</b>
Honey (2 harvests: 1 <sup>st</sup> dec. of June and 1 <sup>st</sup> dec. of August) 30 kg / fam. / year	kg	300	40.00	12,000.00
Wax (200 g fam. / year)	kg	2	90.00	180.00
Crop pollination	units	10	20.00	200.00
Swarms of bees	families	5	150.00	750.00
<b>II. Annual variable consumptions</b>	<b>MDL</b>	×	×	<b>1,655.00</b>
Administration of syrup for spring stimulation (apispir, covitsan or others)	families	10	14.00	140.00
Hives disinfection (petrol lamp)	families	10	4.00	40.00
Treatment against varroa (fumisan, bipin, varachet, varatraz, amipol, baivarol)	families	10	10.00	100.00
Change of queens (once in every 2 years)	MDL	10	50.00	250.00
Filling food reserves and fall stimulation (sugar – 5 kg / fam.)	MDL	50	10.50	525.00
Travel expenses (round-trip 10 km / 2 harvests)	MDL	×	600.00	600.00
<b>III. Gross profit (I-II)</b>	<b>MDL</b>	×	×	<b>11,475.00</b>
<b>IV. Fixed annual consumptions</b>	<b>MDL</b>	×	×	<b>2,593.80</b>
Specialized consulting services	units	2	70.00	140.00
Veterinary services and consulting	units	2	70.00	140.00
Depreciation of fixed assets	MDL	×	×	2,078.00
Other expenses (10%)	MDL	×	×	235.80
<b>V. Net profit before taxation (III-IV)</b>	<b>MDL</b>	×	×	<b>8,881.20</b>

and on average it is estimated to 20-30 MDL per year per a family. The maintenance of a greater number of bee colonies leads to additional sources of income, namely: trading pollen, propolis and royal jelly.

On average, during a calendar year, 10 bee families can form other 5 families, some of which can be sold, some left to increase the number of families. In this case, the quantity of honey collected in the 2<sup>nd</sup> year will increase by approx. 50%. In the presented model, it was assumed that the swarms formed in the first year were sold at the price of 150 MDL per family.

From an economic perspective, the largest share of income from bee products marketing (approx. 91%) is the production of honey. In value units, the sales revenue during the first year of maintaining 10 bee families will make up 13,130 MDL. Examining the annual expenditure incurred in the apiary with 10 bee families, we conclude that the highest percentage is held by breakdowns from the depreciation of fixed assets.

Table 3.Planning the necessary investment to keep and maintain 50 bee families

Specification	Unit	Quantity	Unit cost, MDL	Total, MDL	The period of use, years	Annual depreciation, MDL
<i>A</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
Bee families	families	50	800.00	40,000.00	10	4,000.00
Hives with wooden frames	units	50	850.00	42,500.00	20	2,125.00
Vessels to store honey	units	30	85.00	2,550.00	20	127.50
Beekeeping inventory of current use (fumarate, mask, gown, fork, cage)	a set	2	175.00	350.00	2	175.00
Beekeeping inventory of long term use (chisel, knife, maker of honey, pollen collector, 50 pillows)	a set	1	425.00	425.00	5	85.00
Stainless steel centrifuge	units	1	4,400.00	4,400.00	20	220.00

All calculations can vary depending on the quality of obtained production, the negotiated price with the purchasers, the type of purchased equipment, number of honey harvests, etc.

As a result of developing the business of breeding 10 bee families, a beekeeper can obtain a net profit of 8,881.20 MDL, which can be a considerable source of income for a potential beekeeper only with the correct management of the business.

## II. The apiary model with 50 bee families

This model is designed for people who wish to keep bees at a semi-professional level, and involves the number of 50 bee families, applying the practice of pastoral beekeeping. Thus, the necessary investment will be about 120,250 MDL and the amount deducted from the depreciation of fixed assets will be of 10,535 MDL per year (Table 3).

The maintenance of a greater number of bee colonies leads to additional sources of income, namely: trading pollen, propolis and royal, etc. (Table 4).

Table 3 - continued

A	1	2	3	4	5	6
Wire and artificial honeycombs	a set	50	100.00	5,000.00	2	2,500.00
Auxiliary materials (feeders)	units	1	25.00	25.00	10	2.50
Pollen collector	units	20	50.00	1,000.00	10	100.00
Platform designed to carry bee families for pastoral beekeeping	units	1	24,000.00	24,000.00	20	1,200.00
<b>TOTAL</b>	×	×	<b>X</b>	<b>120,250.00</b>	<b>X</b>	<b>10,535.00</b>

Table 4. Planning annual economic results for keeping and maintaining 50 bee families

Specification	Unit	Quantity	Unit cost, MDL	Total, MDL
<b>I. Sales income</b>	<b>MDL</b>	×	×	<b>123,500.00</b>
Honey (2 harvests: 1 <sup>st</sup> dec. of June and 1 <sup>st</sup> dec. of August) 30 kg / fam. / year	kg	1,500	40.00	60,000.00
Wax (200 g fam. / year)	kg	10	90.00	900.00
Crop pollination	units	50	20.00	1,000.00
Propolis (50 g / fam.)	kg	2,5	800.00	2,000.00
Pollen (0,8 kg / fam.)	kg	40	240.00	9,600.00
Royal jelly powder (50 g / fam.)	kg	2,5	20,000.00	50,000.00
<b>II. Annual variable consumptions</b>	<b>MDL</b>	×	×	<b>14,350.00</b>
Administration of syrup for spring stimulation (apispir, covitsan or others)	families	50	14.00	700.00
Hives disinfection (petrol lamp)	families	50	4.00	200.00
Treatment against varroa (fumisan, bipin, varachet, varatraz, amipol, baivarol)	families	50	10.00	500.00
Change of queens (once in every 2 years)	MDL	50	50.00	1,250.00
Stimulation of nannies families to obtain royal jelly (120 kg / 1 kg sugar / jelly)	MDL	300	10.50	1,575.00
Filling food reserves and fall stimulation (sugar – 5 kg / fam.)	MDL	250	10.50	2,625.00
Travel expenses (round-trip 10 km / 2 harvests)	MDL	×	6,000.00	6,000.00
Taxes for placing hives in the forest fund	MDL	×	15.00	1,500.00
<b>III. Gross profit (I-II)</b>	<b>MDL</b>	×	×	<b>109,150.00</b>
<b>IV. Fixed annual consumptions</b>	<b>MDL</b>	×	×	<b>14,371.50</b>
Specialized consulting services	units	2	70.00	140.00
Veterinary services and consulting	units	2	70.00	140.00
Wages for seasonal employees	man/days	15	150.00	2,250.00
Depreciation of fixed assets	MDL	×	×	10,535.00
Other expenses (10%)	<b>MDL</b>	×	×	1,306.50
<b>V. Net profit before taxation (III-IV)</b>	<b>MDL</b>	×	×	<b>94,778.50</b>

In this volume of production the average yield of honey from one family will be about 30 kg (three harvests respectively), whereas from 50 bee families it will be collected 1500 kg of honey. Honey marketing will be performed at the average price of 40 MDL/kg, which allows to achieve annual sales revenue of 60,000 MDL.

Bees wax is another marketed product from beekeeping. A family of bees produces 200-300 g wax, commodity that can be sold at the price of 90 MDL per 1 kg, so, during a year from 50 bee families it can be obtained about 10 kg of wax, which will allow to achieve the total income of 900 MDL.

Beekeeper can also get income from the pollination of melliferous plants. The controlled pollination of entomophilous crops with the help of bees should be based on mutual agreements between the farmers and beekeepers. The cost of pollination is determined by a negotiation between the parties, on average, it

is estimated to 20-30 MDL/year for a family, constituting 1,000 MDL per year.

On average, during a calendar year, 50 bee families can form other 25 families, some of which may be sold, and some may be left to increase the number of existing families. In the presented model, it was assumed that the beekeeper will transform bee families in nurse families for producing royal jelly. During a warm spring-summer season, a family of bees produces 100-150 g of royal jelly. If the nurse family is used for shorter period of time, being combined with honey production activity, a beekeeper can get about 50 g of royal jelly. The price of a pound of jelly is 20,000 MDL. 50 bee families can produce 2.5 kg of royal jelly, so the revenues from royal jelly sale may be up to 50,000 MDL.

The propolis is collected using special frames. A family produces about 50 g of propolis, and 2.5 kg of propolis can be collected from 50 beehives, thus the income from its sale amounts to 2,000 MDL.

It was noticed that a healthy family brings up about 150 g of pollen per day. In the first year 50 families gathered about 40 kg, which will be sold at price of 240 MDL/kg, bringing an income of 9,600 MDL.

The costs given in Table 4 are just for orientation, because in different conditions a beekeeper can minimize some operational expenses, and for the family business it will exclude the payment for seasonal employees.

As a result of developing a beekeeping business of 50 bee families, a beekeeper can obtain a net profit of 94,778.5 MDL, which may be a considerable source of income only with the correct management of the business.

Analyzing the financial results of the presented two models, we can emphasize the fact that it is more profitable to carry out this work at a semi-professional or professional level. One of the arguments being that the initial investment is recovered more quickly, the offered range of bee products is diversified, fact that minimizes business risk – to have in stock unmarketed production.

## CONCLUSIONS

1. Beekeeping today proves to be a viable business, with large chances of success, given that Moldova's melliferous potential is about 500,000 bee colonies, and now there are more than 140,000.

2. Encouraging is the fact that now the export of honey is renewed. The sale of this delicious product has shifted to West, to European countries, where honey produced in the Republic of Moldova is considered a purely organic product of a great value. The export of swarms of bees and queens is less practiced.

3. Currently, beekeeping, as a branch of animal husbandry, can experience a true development and sustainable economic growth only in conditions of market economy and in the European context. In this regard, the National Program of beekeeping development in Moldova was developed, which aims to develop beekeeping in order to fully exploit the honey potential of the country, ensuring the quality of bee products, according to international norms and their recovery at best prices on both the internal and external market. [3]

4. Strategic development of beekeeping in the Republic of Moldova should also be focused on EU actions in this area. The European Commission has approved national programs for all 27 EU Member States to improve production and marketing of bee products, increasing annual support from 26 million in 2008-2010 to 32 million during 2011-2013. This funding would be used specifically to support beekeepers and provide the necessary funds for national research projects, in order to discover methods to control varroa mite and other diseases and pests the bees are facing. [4]

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## REFERENCES

- [1] Calalb Mihai, Cebotaru Valentina, Bugaian Larisa, 2007. Afaceri apicole. Asociatia pentru Reforma si Dezvoltarea Sistemului Educational din Republica Moldova ORDSE, Chisinau, 297 p.
- [2] Stratan Alexandru, Zbanca Andrei, Morei Virgiliu, Litvin Aurelia, Petcu Igor, 2010. Ghid privind argumentarea economica a activitatilor din agricultura Republicii Moldova (sectorul zootehnic). Casa editorial-poligrafica Bons Offices, Chisinau, 214 p.
- [3] <http://apicultura.md/descrierea-apiculturii-in-moldova>
- [4] <http://www.piataagricola.eu/apicultura.htm>

## FOOD INDUSTRY DEVELOPMENT IN THE RURAL AREA OF THE REPUBLIC OF MOLDOVA

Victor MOROZ, Anatolie IGNAT

Institute of Economics, Finance and Statistics, 45, Ion Creanga str, MD-2064, Chisinau, Republic of Moldova, tel: +37322 501114, email: [vmoroz27@gmail.com](mailto:vmoroz27@gmail.com), [anatolie.ignat@gmail.com](mailto:anatolie.ignat@gmail.com)

### Abstract

*The paper is aimed to present the state of food industry in the Republic of Moldova and its role for increasing employment in the non-farm rural economy. At present in the food processing and beverage industry activates several hundreds of companies and specialized units. Most of them are concentrated in urban areas. Small-scale food processing emerges in rural localities but it remains rather limited. Analysis is based on the information provided by Ministry of Agriculture and Food Industry, National Bureau of Statistics, and qualitative data collected during the field study of small and medium scale food industries that have been undertaken during the period of November-December 2010 in order to reveal the current situation and major impediments for the further sector development. The analytical work was based on the semi structured in depth interviews conducted in private food industries.*

**Keywords:** non-farm economy, food industry, food business operators, food safety

### INTRODUCTION

Nowadays the combination of labor outflow from agriculture in Moldova in recent years, low rates of agricultural growth, and rising rural poverty all argue against the capacity of primary agriculture to create new jobs and provide necessary livelihood for rural inhabitants.

Therefore it is necessary to increase employment in the non-farm rural economy in order to create opportunities for rural growth and labor absorption.

In conditions of the insufficiency of investments in rural non-farm activities promotion of the food processing SME based on own savings and remittances could contribute to rural development [4].

### MATERIAL AND METHODS

For the analysis of the agri-food sector the sub-sector approach have been used. The ratio between the agri-food industry and total agricultural production in current prices was calculated in order to give a rough assessment of the added value to the agricultural row material. The primary information was collected through interviews conducted in relevant public authorities and private food

industries, based on the semi structured in depth questionnaires. During the field study six food processing companies has been interviewed. Profiles of selected companies were chosen according to the key sub-sectors of the food processing industry.

### RESULTS AND DISCUSSIONS

The economy of the Republic of Moldova has registered some growth tendencies beginning with the year 2000. The most important contribution to the economic growth between 2000 and 2009 belongs to the services sector. Among the main factors that have stimulated the economic growth were the increase in imports and remittances from labor migrants. Agriculture contributed with less than 9% to the GDP, while over 28% of the active population of the country is engaged in agriculture. Agriculture in Moldova traditionally serves as an informal safety net, providing subsistence and limited cash income from fresh sales or lightly processed products.

Impact of factors such as consolidation processes, technological improvements in primary agriculture contribute to the high rate of rural unemployment and migration of labor force abroad.

Thus, given the likely disproportionate effects of the crisis on rural Moldova, if progress in rural poverty is not further to worsen, there is a need for increased employment in the non-farm rural economy. Indeed, this appears to offer opportunities for rural growth and labor absorption.

The food industry has maintained its importance. Thus food processing and beverage industry contributes with almost 33% of the total industry production in the year 2009. At present in this sector activates several hundreds of companies and specialized units. The most important companies are concentrated in domains of vine production, fruit and vegetables processing, meat production and processing, mills and bakeries, and dairy production [5].

**Wine and brandy production.** Wine and distilled spirits represent the largest portion of Moldova's food processing and a significant part of all industrial output. Moldova has 132 enterprises dealing with wine production and bottling. In addition there are 7 brandy factories producing, maturing and bottling distillates. About 70,000 individuals, mostly smallholder farmers, grow grapes. More than 6,000 workers are engaged in wine processing that is almost twice less than in the year 2005.

**Mills and bakeries.** A number of 301 mills and 306 bakeries activates in the country. They employ 1.2 thousand and 6.9 thousands persons respectively. Nowadays in the sub-sector of mills and bakeries can be observed a concentration of producers, grouped around the large bread-baking plants that have a market share of about 65% from one side and the group of small and medium scale bakeries that have a market share of circa 35%. As main leaders in this sub sector can be mentioned Franzeluta SA located in the capital city, the bread baking plant from Balti in the North region and the bread baking plant CahulPan SA in the South.

**Fruit and vegetable processing.** Fruit and vegetable processors are divided into two main groups: the first comprise a small number of large firms, focused on export markets and producing about 80 percent of the total output of the sub-sector; and almost

one hundred of small and medium canneries mainly serving the domestic marketplace. Together these firms process from 150,000 to 200,000 tons of raw material, mainly apples and plums. Main products are concentrated apple juice, fruit and tomato paste, canned fruits and vegetables. However, the potential of the fruit and vegetable processing industry is used at only one third of its capacity.

**Meat processing.** Moldova's meat-processing industry is highly consolidated, while official statistical data indicate there were 189 meat processing enterprises and production units in the year 2009. "Carmez" in Chisinau and "Basarabia Nord" in Balti dominate the domestic market, together controlling about 2/3 of the local market. Along with "Carmez International", a Belgian joint venture now separated from "Carmez", these companies dominate the export market and have strong brands. All three import 85 to 95 percent of their meat and offal raw material and nearly all of their ingredients for sausage and ham manufacture. A handful of other manufacturers supply sausage and smoked meats to the supermarket and small shop outlets in cities and towns.

Meat companies operate their abattoirs on an intermittent basis, because domestic stock is more expensive than imported frozen meat. The production of the processing industry is exported mainly to CIS states, particularly because Moldova has not qualified for the status needed to export meat products to the EU.

**Dairy production.** The dairy industry is based primarily on the supply of raw milk from small producers from company-owned collection centers and from dairy cooperatives with collection centers financed by the dairy companies or through donor programs. While overall milk supply is adequate and animal productivity has been increasing slowly, dairy processors have seen only marginal improvements in the quality of milk [1].

Foreign investment in the sector has been relatively strong in past years due to the potential for import substitution, but these investors are beginning to question the

viability of the sector's dependence on the household milk production.

Table 1. Total number of enterprises and average annual number of staff employed, in the food processing industry, 2005-2009

	2005	2006	2007	2008	2009
<b>Manufacture of wine</b>					
Number of enterprises	174	166	159	136	132
Employees, thou pers.	13.4	10.5	7.8	7.4	6.2
<b>Mills</b>					
Number of enterprises	319	326	320	295	301
Employees, thou pers.	1.6	1.6	1.4	1.3	1.2
<b>Bakeries</b>					
Number of enterprises	295	296	297	285	306
Employees, thou pers.	6.8	6.8	6.9	7.1	6.9
<b>Fruit and vegetable processing</b>					
Number of enterprises	110	113	101	94	105
Employees, thou pers.	5.1	5.0	4.5	4.3	3.1
<b>Meat processing industry</b>					
Number of enterprises	178	179	177	182	189
Employees, thou pers.	2.4	2.5	2.9	3.0	3.0
<b>Dairy industry</b>					
Number of enterprises	56	54	47	47	51
Employees, thou pers.	2.9	2.9	2.9	2.7	2.4

Source: [3]

The industrial facilities supply dairy products that require quick consumption (pasteurized milk) and low storage space (sour cream, yogurt, curds, soft cheeses). However, the bulk of the population is served by dairy products produced in small household operations in rural areas for local consumption. Thus the utilization rate of existing large scale plant capacity is low, at about 15-20 percent.

Furthermore food business operators, specialized in meat and dairy production, currently are not in a position to ensure that potential exports to the EU fulfils the relevant EU requirements [2].

The overall added value to the agricultural row material is very low. Moldovan agricultural production and export being specialized mostly in row material and semi processed agri-food products. Thus reported to each lei of primary agricultural production have been produced only 0,7 lei of food products in the year 2009, that is comparable with the level of the 90<sup>th</sup>. And this ratio is

steadily decreasing during the recent years that means stagnation in the food industry.

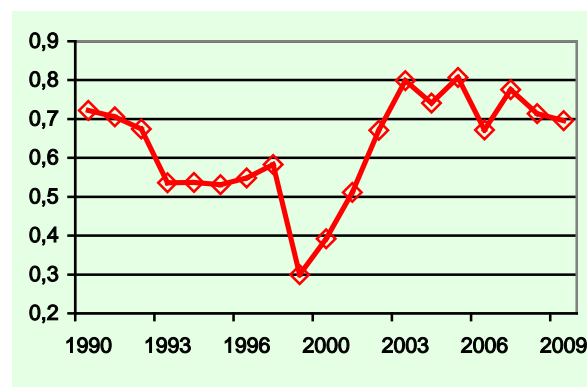


Figure 1. Ratio between the production of agri-food industry and total agricultural production, 1990-2009, current prices, mln. Lei

At the same time in different rural areas, predominantly in suburbs have appeared a impressive number of small and medium scale food business operators (FBO) dealing with a wide range of food products starting with meat, fish and dairy processing and ending with cool fruit and vegetable storage and processing. In order to reveal the current situation and major impediments for the further development of this sub-sectors a field study of small and medium scale food industries have been undertaken during the period of November-December 2010.

During the field study six food processing companies has been interviewed. The profiles of selected companies were chosen according to the key sub-sectors of the food processing industry. Thus the pool of interviewed FBOs was constituted out of a fish processing company "Asamblor" SRL, a meat processing company "Frocvel" SRL, a poultry meat production company "Aviproduct plus" SRL, a vegetable processing company "Moisei Angela" and two fruit processors "Minunata Xenia" SRL and "Pronutconagro" SRL. All interviewed companies are located in two villages in the suburb of the Chisinau and falls under the category of small and medium enterprises (SME).

### Main findings

All interviewed FBOs represent new companies created on the basis of own

financial savings. Often these companies have used bank credits and remittances as starting capital for their businesses.

Each of interviewed companies employs on average 25 persons that is significant for rural areas.

Despite of the lack of supportive food legislation several food processing companies have developed a successful export of their products to EU countries. In the same time the majority of the FBOs visited are not aware of the recent EU requirements concerning HACCP.

The major part of the FBOs have an written own-check plan that includes: a cleaning and disinfection procedure, a procedure for the water supply control, a procedure for pest control, an employees' training program, a procedure for traceability and recall, a procedure for temperature checks, a procedure for check on raw materials and suppliers, a maintenance procedure, a waste management procedure, a sampling plan for internal controls on raw materials, finished products, water, etc.

In very rare cases FBOs have a permanent procedure based on the HACCP principles. However none of the interviewed companies have implemented and/or are certified by HACCP.

Interviewed companies do not benefit of any other kind of assistance from state or NGOs. Existing FBOs Associations join predominately large scale operators, while medium and small scale FBO are often left out of these activities.

## CONCLUSIONS

- The large scale food industry of the Republic of Moldova is characterized by underutilization of its production capacities and lack of investments.
- Small and medium food business operators offer an example of more efficient and flexible reaction to the demand on the local and external markets.
- Small and medium food business operators developed their businesses on the basis of personal financial savings

with the occasional use of bank credits and remittances.

- SME have developed abilities and capacities to organize successful exports to EU countries.
- SME are not integrated horizontally with other similar FBOs, while vertical integration is limited to supply contracts.
- FBOs need training in meeting general hygiene requirements for food processing and modern food safety and quality management practice such as GMP (Good Manufacturing Practices), HACCP and the ISO quality management systems.
- It is important to strengthen the capacity building of food business association in order to improve their ability to provide better services to their member companies through a more transparent creation of FBOs association and decision making process inside of them.

## ACKNOWLEDGMENTS

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## REFERENCES

- [1] Bugaian L., Lozovanu C., 2006, Restructurarea prin integrare în industria laptelui. Chişinău, 2006
- [2] Moody R., Kireeva I. and Butucel I., 2010, Agriculture and food law and policy approximation to EU standards in the Republic of Moldova. IBF International Consulting.
- [3] National Bureau of Statistics, 2010, Statistical Yearbook of the Republic of Moldova
- [4] Sirodov I., 2009, Small and medium-sized enterprises in Republic of Moldova. In: Journal of Urban and Regional Analysis, vol. I, 1, 2009, p.67-84
- [5] Пойсик М., 2008, Промышленность Молдовы: вчера, сегодня, завтра. IEFS, Chisinau

## OPPORTUNITY FOR LAYING HENS MICRO-FARMS, TO ALIGN WITH STANDARDS OF THE EUROPEAN UNION

Alexandra MUSCĂNESCU<sup>1</sup>

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine, Bucharest  
59 Mărăști, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64,  
Fax: + 40 311.020.717, E-mail: [alexandramuscanescu@yahoo.com](mailto:alexandramuscanescu@yahoo.com)

*Corresponding author:* [alexandramuscanescu@yahoo.com](mailto:alexandramuscanescu@yahoo.com)

### Abstract

*The poultry sector is a very important component in the Romanian economy, providing over 25,000 jobs in the direct poultry activities and another 100,000 jobs in the related activities. Given that, however, since 2010, poultry farmers no longer benefit from any form of support through state aid, it is considered imperative, to fully capitalize egg production, to replace the traditional peasant household with micro-farms for laying hens. This paper aims to highlight the advantages of micro-laying hens, compared to industrial poultry farms and subsistence Romanian households, especially in the context that the establishment of such farms is one of the recommendations of EU legislation.*

**Keywords:** *poultry sector, micro-farms, egg production, EU legislation.*

### INTRODUCTION

In Romania, according to the law, is expected the establishment of farm holdings meant to gradually replace subsistence peasant farmers, agricultural products made by self-consumption. Analyzing the current system of consumer commercial egg production, it is indicated that egg production in farms is maintained for hundreds of years in an outdated production process [1]. The establishment of agricultural holdings has encouraged micro and farms, which will gradually replace the egg production of small farmers, whose numbers and activity will gradually decrease over the next period. The criteria for classification of poultry units, with the help of which the situation of laying hens numbers and production data is presented, is the size of such establishments.

### MATERIAL AND METHODS

In the present paper, we used a statistical method, specific to such analysis, namely the comparison method, by using indicators such as: traditional peasant households, micro-farms and industrial poultry farms, in

order to identify the advantages of the micro-farms for laying hens. To reach that goal, we have studied the following quality indicators: production of eggs per year and average price per year for 2008-2010. The information found in the paper is provided by INS and EUROSTAT, for the years 2008-2010. The comparison method was used to highlight the evolution of each indicator mentioned above, from one year to another [3].

### RESULTS AND DISCUSSIONS

Upon implementation of structural reforms in agriculture, to align with EU requirements, in 2013, 7.42 billion eggs are expected to be produced, of which 4.595 billion (71.3%) in the industrial sector and only 38% in rural households; and in 2025, approx. 8.21 billion eggs of which 68.2% in the poultry industry [2].

◆ The subsistence households (30 birds) are the traditional peasant sectors, where small quantities of eggs in seasonal periods are produced, recording production peaks in the period in which the product price decreases (warm season), operating costs are reduced



and sometimes eggs are included in the “bio” category (uncertified).



Photo 1 Example of traditional peasant household

◆ The micro-farms are production capabilities with the average population of 5,500 birds, which exclusively produce eggs for sale; the costs are relatively low, mainly due to lower overhead costs, reduced logistic requirements and a constant production throughout the year with a controlled and certified quality (for organic farms).



Photo 2 Example of micro-farm

◆ Industrial poultry farms have large production capacities (50,000 to 100,000 birds), producing eggs in the intensive growth system (mainly batteries), with large productions, constant throughout the year, with high overhead costs and high logistical needs high; large cash flow requirements, negative environmental influences.



Average egg production (pieces / year) is considered to have reached nearly 113.1 million in 2010, compared with 107.71 in 2009 and 103.5 million in 2008 (table 1)

Table 1. Evolution of egg production for 2008-2010

Production (thousand tons)	2008	2009	2010	Poultry production of 2010 in comparison to 2009
Eggs (mil. Pieces)	103,5	107,71	113,1	0,5%

Source: INS, 2010

From Table 1. one can notice a slight increase in average production of eggs by 0.5% from one year to another, anticipating the coming years provide a continuous increase in production of eggs/year.

The annual production of eggs (Fig. 1) is considered to have reached almost 64,3 million in 2010, up from 55,6 million in 2009 and 49 million in 2008. This production includes incubation eggs, which represent 6-7% of total egg production.

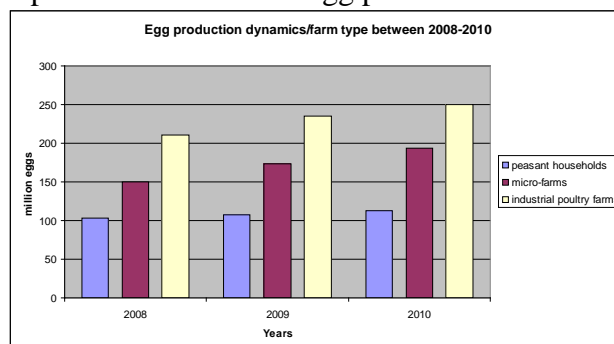


Fig. 1. Egg production dynamics/farm type for 2008-2010

In Romania there are only 1.2 billion eggs currently produced in industrial conditions, which can be traded according to GD

415/2004, namely to be sorted, labeled, packaged, stored at temperatures exceeding 14 ° C and properly marketed.

The approx. 5.5 billion eggs produced in small farms can not be marketed under the GD 415/2004 and fail any of the conditions set by EU regulations.

Therefore, after some of these eggs are used for incubation and removal of chicks, the rest is self-consumption or occasionally offered to urban relatives and acquaintances of farmers.

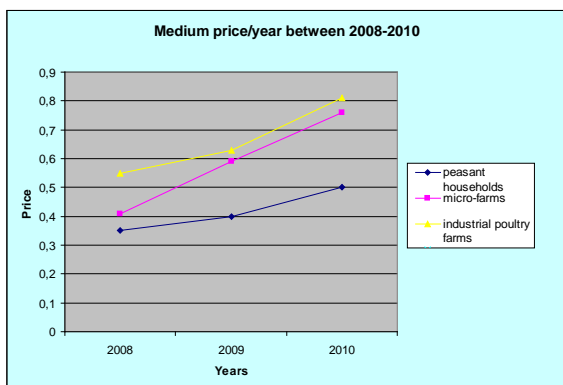


Fig. 2 Dynamics of average annual price

Figure 2 shows an increase of 17.7% of the average annual price/egg from 2008 to 2010. The industry is currently producing only 1.2 billion, with the prospect that the number of eggs will fall in the future. It is therefore natural that the average price of eggs to remain at the current (about 0.9 lei).

These data confirm the potential of the Romanian market eggs to support growth to double the current domestic industrial production, putting into operation poultry farms which apply intensive-industrial growth systems, being now and in the next period, appropriate and promising.

Many counties do not produce eggs or produce them in very small quantities. Only the following counties produce significant quantities of eggs: Bacău, Bihor, Braşov, Brăila, Caraş Severin, Cluj, Constanţa, Dâmboviţa, Galaţi, Giurgiu, Hunedoara, Ialomiţa, Iaşi, Maramureş, Satu Mare, Sibiu, Vaslui and Vâlcea, a total of 18 counties. The remaining 24 counties do not produce eggs in an industrial system, being condemned to under-consumption or transport from other counties, an operation which raises the price of the product and

results in loss, the egg being highly perishable and easily losing freshness.

Currently, from a total of 334,600 tons of Romanian eggs, appreciatively 87% are obtained in farms with more than 10,000 birds and 13% come from households with less than 25 birds. In the case of farms with less than 25 layer hens, production is mostly for own consumption [5].

The micro-farm aims to achieve finished products which can be delivered directly to market without including intermediaries in the producer-market relationship. Basically, the micro-farm can deliver fresh, dietary eggs on the market, one day's production being able to reach the market the following day. The egg production targets consumers in the nearest urban center, including self-service supermarkets, which contributes to supplying the population with a recognized value.

## CONCLUSIONS

► The establishment of poultry farms is not only in the interest of new poultry producers in Romania, but - especially - is of national interest. Lack of domestic eggs will normally result in massive increase in demand over supply, excessive rise in the price of eggs and export interests of countries with surplus eggs to the Romanian market. This is unacceptable, seeing as Romania is a strongly grain-based country, with pedo-climatic conditions favorable for bird breeding, and a rich experience in production of eggs for consumption, which is practically the easiest, most accessible poultry activity. It is one of the reasons why the decisive authorities in Romania particularly encourage the establishment of farms specialized in production of eggs for consumption.

► Suppose, however, small farmers will continue to produce eggs for own consumption and the urban population – presently in the number of 11.9 million, but which will gradually increase – will only be supplied from the present industrial producers, which will add to poultry farms manufacturers.

► The current poultry producers are likely to cut production by half next year, following the ban on present layer hens breeding battery system, namely reach appreciatively 600 million eggs, which would only insure 50 eggs per urban inhabitant, compared to 250 eggs as are required for efficient feeding. Perhaps several establishments for layer hens will be created or alternative batteries, accepted by the EU in some of the current poultry complexes will be introduced, although these increases in capacity will be insignificant in a period in which poultry industry can only offer 20% of egg production to the population.

► Because today the European Union provides funds for many types of agricultural business and rural business development, many entrepreneurs have learned that the use of modern technologies lead to increased productivity even in conditions of limited space.

► Thus, a “free range” micro-farm bring higher profits than the traditional chicken farms, because such a farm obtains a high productivity, and a higher price for eggs, than those from hens kept in the battery system.

## **ACKNOWLEDGEMENTS**

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## **REFERENCES**

- [1] [www.smartfinancial.ro](http://www.smartfinancial.ro)
- [2] Elena Popescu-Micloşanu, 2007, Bird breeding for egg production, Printech Publishing House, Bucharest, 25-36
- [3] Agatha Popescu, 2010, Considerations on Romania's position in the European and world honey trade, Scientific Papers, Series D, vol. LIII, 183-188
- [4] Ioan Văcaru-Opriş, 2007, Poultry treaty, Ceres Publishing House, Bucharest, 75-100
- [5] [http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Trends\\_in\\_consumer\\_prices](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Trends_in_consumer_prices)

## PERSPECTIVES IN ROURAL TOURISM – THE GEOPARK IN BUZAU COUNTY

Raluca NECULA <sup>1</sup>, Diana NECULA <sup>2</sup>

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine, Bucharest, 59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, Fax: + 40 21318 28 88, E-mail : raluca\_nec@yahoo.com

<sup>2</sup>Research Institute for Agricultural Economics and Rural Development, Marasti, nr. 61, sector 1, cod 011464, Tel: + 40-21-318.16.86, Tel/Fax: + 40-21-318.16.86, Email: anaidiananec@yahoo.es

*Corresponding author* : raluca\_nec@yahoo.com

### *Abstract*

*Creating Geopark " Buzău County" was initiated and is coordinated by the Council Buzau County. Geopark is a tool to preserve, promote , exploit particular natural elements of the Buzau (mud volcanoes, salt from Meledic, amber), cultural and historical heritage, to support social and economic development of municipalities.*

**Keywords** : rural tourism, tourism, rural development.

### INTRODUCTION

The Geopark is a territory that includes elements of great geological interest, together with elements of ecological interest, archaeological, historical and cultural.

A Geopark has well-defined limits, an area large enough and a territorial development strategy for the benefit of local communities, whose existence is based on the exploitation of natural and cultural resources, the principle of sustainable development.

The Geopark settlements are areas that are managed as community development models in harmony with the natural environment.

The Geopark will have its own management structure, in local and national partnerships, it will provide natural and cultural heritage conservation and new methods of protection, education, cooperation for socio-economic development, improving living conditions in rural areas and strengthening identity local.

Management of a Geopark is done in accordance with the recommendations identified and UNESCO European Geopark Network and Charter.[1]

### MATERIAL AND METHODS

The data are collected in the Buzau County Council; Partners involved in implementing development: County Authorities, local authorities, ANTREC, tourism institutions

### RESULTS AND DISCUSSIONS

#### **Strategic Objectives**

1. Increasing number of tourists visiting Buzau
2. Developing elements of national and European identity by highlighting all the Local traditions

**Investments provided:** signs, tourist information centers, infrastructure improvements, five trails and off road mountain biking in nature.

Investment Amount: 951150 lei

**Status:** Project approved by the Buzau County (October 28, 2010), pending funding by ROP Priority axis 5 "Sustainable development and tourism" , Key areas of intervention 5.3.

Project completion time - 2015 [5][6]

**Travel Segment** – Ecotourism

**Related Segments** - cycling, riding, camping, golf tourism.

### Geographical Orientation:

Buzau County Geopark is located in Region 2, south-east in the northern part of the county of Buzau. The proposed territory is located in the curve of the Carpathians, the historical crossroads connecting Wallachia, Transylvania and Moldova.

Project name	Key area of intervention	Value	Period
„Modernization of access to tourist areas with demonstrated potential of Buzau county”	Priority Axis 2 "Improvement of regional transport infrastructure”,	2 97,072,121.44 lei	16.04.2010 05.07.2011
"Rehabilitation of Buzau County Museum"	Priority Axis 5 "Sustainable development and tourism"	35,125,058.23 lei	06.03.2010 05.03.2013
“Conservative and participatory Management of PENTELEU ROSCIO190 site”	Priority Axis 4 "Implementation of adequate management systems for nature protection”	4 1,510,963.39 lei	06.01.2010 06.11.2011
“Conservative and participatory Management of SIRIU ROSCIO229 site”	Priority Axis 4 "Implementation of adequate management systems for nature protection”	4 1,316,497.53 lei	06.01.2010 06.11.2011

Table no 1. Project in implementation in Buzau county  
Sursa: Buzau county council[5]

Geopark comprises, in part, municipalities Beceni, Berka, Bozioru, Bisoca, Brăești, Chiliile, Cănești, Colt, Cozieni, Lopatari, Mînzălești, Odaile, Pîrscov, Pănățau, Scorțoasa, Sarulesti, Willow Valley, Vintilă Voda, totaling an area of 109 826 hectares and a population of 52.500 inhabitants. Geopark Land boundaries overlap lip administrative boundaries of communes. Follows the southern limit of the administrative boundaries of communes Panatau, Pîrscov, Berka. Eastern boundary follows the boundaries of communes Berka, Beceni, Vintila Voda Sarulesti, V. Willow.

Villages within the northern limit follows the Willow Valley, Bisoca, Lopatari.

Western limit follows the limits of the communes Lopatari, Braesti, Colt, Panatau.

### Service description

It was founded Intercommunity Development Association "Buzau County", the purpose of this association is to achieve projects of regional or local interest to identify global issues and for the local communities to

establish their way of solving economic and social development for the Buzau county.

Members of the association are Buzau County Council and Local Councils of communes: Beceni, Berka, Bisoca, Bozioru, Brăești, Cănești, Chiliz, Colti, Cozieni, Lopatari, Mânzălești, Odaile, Pîrscov, Sarulesti, Scorțoasa, Willow Valley, Vintilă Voda.[4]

Also, by creating this association we hope to:

- the creation and operation of the Buzau County Geopark as a tool for sustainable development

- Protecting natural and cultural heritage of the region Buzau County and develop a management system for this heritage;

- supporting local traditional activities and local development of new products in line with sustainable development;

- tourism and cultural tourism development and creating a scientific tourist destinations in Buzau County;

- developing a partnership in education and creating a framework for cooperation and association with structures in the country or abroad to attract investors and promote action on social, economic and cultural interests of Buzau County area.

To ensure management of geological, natural, historical, cultural sites and for the natural resources available, according to consumer demands of local populations, in the Geopark we can delineate areas with different regime of protection, conservation and exploitation of resources, as follows:

1. strictly protected areas with conservation and protection status of scientific reserves;
2. buffer zones, with a protective role of strictly protected areas and activities that are permitted limited use of the resources available in accordance with the authorizations given by the administration of the Geopark [2];

### Special Zone in Geopark:

Muddy Volcanoes–Paclele Mari si Paclele Mici; Amber from Colti; Salt; Plateau Meledic

### Development Requirements

1. **Acceptance of the structure of the newly created UNESCO Geopark and European Geopark Network Charter.**

Geopark is a concept launched and supported by UNESCO, in partnership with the European Geopark Network. International recognition and acceptance by officials of a Geopark in these structures is in accordance with regulations established by UNESCO and the Charter of the European Geopark Network.[3]

Advantages of a UNESCO Geopark, a member of international networks, are:

- Supporting cooperation in the natural and cultural heritage preservation and development of geo-sciences;
  - Ensure the development of new types of skills and create new jobs;
  - Partnerships in the education and public awareness;
  - To develop and promote cultural tourism packages and geo-tourism;
  - Creation of artistic objects and consumer items inspired by geology, in complementarity with other Geopark;
- Partnership-qualified for innovative projects in nature conservation, education, socio-economic development in rural areas.

## 2. Identify the steps required for the establishment of a Geopark:

Geopark is a tool to strengthen local identity and a sub-sustainable development of rural areas. Suitable for development in areas where geo - diversity, biodiversity and cultural diversity, with no other resources are threatened by development or loss of identity. In order to build and ensure the proper administration of a Geopark, in agreement with the European Geopark Network Charter and the provisions of UNESCO, have taken the following steps:

- a. Making a detailed documentation of natural and cultural heritage, sites of interest for conservation, education and tourism, socio-economic institutions and organizations in the area, sources of funding for activities Geopark;
- b. The definition of territory and boundaries.  
Geopark must have clearly defined limits and be consistent with a relatively coherent territory in terms of natural, cultural and administrative;

It is very practical for use within the administrative boundaries of communes Geopark;

3. **Achieving a sustainable development strategy** within the Geopark and a regulation for the carrying out;

4. **Establish a local partnership** able to apply the proposed strategy and to co-finance activities and management team. Management team also plays the role of local development agents.

5. **Approval documentation** by local councils, council / county councils, environmental protection agency.

6. **Notification letter** to the UNESCO National Office

7. **Scientific opinion** of the Romanian Academy

8. **Geopark declaration as protected area** by the Ministry of Environment

-Admission to the European Network and Global Network (UNESCO).

9. **Create an operational structure of the Geopark.** Geopark will comply with the rules of operation of a Geopark as stipulated by legal regulations and has the following structure:

- a) Geopark Centre
- b) Special Enterprise Zone:
- c) natural sites considered as special protection areas.
- d) Enterprise routes are routes for walking and visiting proposed. They have different lengths of between 1 and 3 to 4 days and include both natural and cultural sites. The routes will include points of access, rest areas, restaurants, accommodation facilities, workshops of local craftsmen, information points.

10. **Information Items** - arranged in all municipalities and represented by the panels, and spaces for information, guidance.

11. **Elements of the structure** and functioning Geopark Management Unit:

- Advisory Council (AC) is composed of representatives of local actors and has activities and support the implementation and execution of the Geopark strategy
- Administration - from 5 to 7 people.

- Operation of government funding will be made of local funds, own income, projects, consultancy.
- Management Plan - will include regulations on organization and operation of Geopark status of protected sites, protection mode, allowed activities, restrictions.
- Scientific Board is to supervise the administration and to track the rules and laws of conservation of natural and cultural heritage.

### **12. Creating a structure of information, training and promotion of local private initiatives:**

- Structures to carry out actions to encourage / support / training / consultancy for the initiation of private initiative;
- Wireless local-information and communication for local products but also concerning legislation, opportunities, product promotion;
- Local traditional market for tourism products;
- Establish a strategy for marketing / sale of local products;
- A Calendar of Events traditional for natural and cultural heritage conservation

### **13. Developing an education and training system to support sustainable development** This system aims at training students and adults to discover and use local resources.

## **CONCLUSIONS**

### **1. The project will allow:**

- Existence of a consistent framework for local development programs in all municipalities through partnership with local government;
- Increase local revenues;
- Increasing the area of identity and cohesion;
- Developing tourism through the influx of tourists;
- Raising awareness and public involvement in compliance and protect local natural and cultural heritage - identifying with the heritage of the local population; Development of local, national and international partnerships;
- Increasing the number and support private initiatives and proposals

## **2. Economic Impact**

- Creating a common market for agricultural products production and marketing of traditional products;
- Generating revenue direct, indirect and induced in the area, which remain, mostly in the area;
- Creating local brands of traditional products;
- Development of tourism and related activities;
- Development of tourism infrastructure;
- Creating an environment conducive to attracting investment and capital;
- Revitalizing traditional crafts.

## **3. Social impacts (including impacts on employment)**

- Creation of new direct and indirect jobs;
- Restoration and creation of logo identity Geopark Land area Buzau
- Retraining
- Create a social framework and a motivation to stop migration and growth initiatives and involvement in local development
- Creation of cultural centers and organize cultural activities and training;
- Introducing the area in a circuit and exchanges of information at national and international

## **REFERENCES**

- [1] Andrasanu, A. 2005 – The Geopark – Framework for research, education and training in sustainable development, Second Conference on the Geoheritage of Sebia, Proceedings, Belgrade, ISBN 502.1311.55, pp 171 – 175;
- [2] Geological heritage conservation and regional development. Strategies for the South Eastern European Countries, Workshop Guide, Ars Docendi, ISBN 9735581159, pp 23 – 32.
- [3] Macgregor, J., 2005 – Ecotourism marketing strategy 2006 to 2010, Association of Ecotourism in Romania, Zarnesti;
- [4] Anuarul Statistic al Judetului Buzau Institutul National de Statistica, Directia Judeteana de Statistica Buzau, 2006;
- [5] <http://www.cjbuzau.ro/>
- [6] <http://www.apmbuzau.ro>

## ALTERNATIVE ENERGY - REALITIES AND PERSPECTIVES IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

Mihaela PÎRVULESCU<sup>1</sup>, Vergina CHIRIȚESCU<sup>2</sup>, Gheorghe SĂVOIU<sup>3</sup>

<sup>1</sup> Bioterra University, 81, Gârlei st., 1<sup>st</sup> district, Bucharest, Postal code 013724, Romania, Tel. / Fax. + 4.021.490.61.29, Mobile: + 4.0722.657.785, E-mail: mihael.pirvl@yahoo.com

<sup>2</sup> Romanian Academy, Institute of Agricultural Economics, 13, Calea 13 Septembrie st., 5<sup>th</sup> district, Bucharest, Postal code 050711, Romania, Tel. / Fax. + 4.021.318.24.11, Mobile: + 4.0744.818.086, E-mail: v.chiritescu@yahoo.com

<sup>3</sup> University of Pitești, 1, Târgul din Vale st., Argeș county, Romania, Postal code 110040, Tel. + 40 348.453.100, Mobile: + 4.0745.047.085, E-mail: gsavoiu@yahoo.com

*Corresponding author* : v.chiritescu@yahoo.com

### Abstract

*The main purpose of this paper was intended to be the identification and characterization of alternative energies. In a generic sense, when we say, alternative energy, or renewable energy sources, we refer primarily to: wind, biomass and solar energy. It also undertook an analysis of national potential of renewable energy sources and resources, and prospects of this sector in context of sustainable development. In formulating this material are numerous studies and documentation, both in specialized work, and from press articles, sites and information specialized institutions of the state. According to information from the "Energy Strategy of Romania, the national potential of renewable energy sources comprises: solar, wind, hydro power, biomass and biogas, geothermal energy. Although our country has the greatest potential in the south - east Europe in wind energy, development renewable energy sector is threatened and hampered by poor infrastructure, lack of financial resources and inconsistency framework. In the world as governments strive to reduce dependence on fossil fuels to offset carbon emissions, wind farms increasingly gaining ground. Wind energy resource appears to be "ideal" is free and plentiful almost everywhere. Researchers at Harvard University say that the resource potential is huge because "even the most industrialized countries in the world can cover the entire electricity requirement by harnessing wind strictly".*

**Keywords:** *alternative energy, sources renewable, sustainable development.*

### INTRODUCTION

European Council composed of heads of government of the 27 EU member states, met recently in Brussels and led by the Hungarian Presidency in office, the representatives they discussed two issues important to the European Union: energy and innovation. The European Commission has established that the energy and innovation are two of the main priorities in its strategy UE 2020. Discussion about energy policies focused on this resource and how European policies can most effectively support the transition to a low carbon economy and greater security of energy supply, including through a more integrated energy market and interconnected. This topic has great importance for the Central European region, striving to expand and develop infrastructure. [4]

Council discussed ways in which can be stimulated so that the innovative potential of Europe to face the most pressing issues facing society. According to a study published earlier this week, the countries of the region are behind the EU 27 in terms of "innovation performance". The results confirm the study by GE and resulted in global innovation Barometer, released a week at Davos (Switzerland), according to which Germany and Sweden are among the world leaders in innovation, including energy, along with U.S., Japan and China. [4]

**Sustainable development** captures the economic transition from a systemic way to lower high, but the last half century, have identified numerous meanings and reinterpretations of the concept, starting with the redefinition of development and welfare, protect the environment. *Lester R. Brown* [1]



became the promoter of a series of studies on the progress made towards structuring a sustainable society, suggestively entitled Vital Signs state of the world or to identify the conflict between industrial civilization and the environment, based on two main issues: the tendency of depletion natural energy resources, raw materials and food, or consumption of energies in a higher rate than their regeneration capacity and more rapid physical deterioration and the increasing pollution of the environment: water, air, soil. In this context, in just two decades, the importance of delimiting the concept of sustainable development through environmental protection allocated to a sustainable society (viable, sustainable) being that shape their economic and social system so that natural resources and life support systems are maintained on an axis where the environment is always regarded as an integrated system bringing together the wealth and income distribution within society and the influence of economic change on lifestyle, thinking and behavior of people and resource efficiency and mechanisms of economic system so as to meet the needs of present without compromising the similar capability for needs of future generations ("Our Common Future, Brundtland Report, 1987). According to information from the "*Energy Strategy of Romania*" [8], the national potential of renewable energy sources comprises: solar, wind, hydro power, biomass and biogas, geothermal energy. Although our country has the greatest potential in the South - Eastern Europe in wind energy development renewable energy sector is threatened and hampered by poor infrastructure, lack of financial resources and inconsistency framework. In the world as governments strive to reduce dependence on fossil fuels to offset carbon emissions, wind farms increasingly gaining ground.

**Wind energy** resource appears to be "ideal" is free and plentiful almost everywhere. Researchers at Harvard University say that the resource potential is huge because "even the most industrialized countries in the world can cover the entire electricity requirement by harnessing wind strictly". In principle, things

are very simple: energy recovery technology involves installing a wind turbine atop a tall tower (for direct access to drafts, without interference from buildings or other obstructions from the ground), taking energy wind and transform it into electricity using a converter. Simple, but expensive!

This technology is not at all cheap, its cost varies between 1.3 and 1.5 million per megawatt installed. It takes into account the cost of land, equipment, and transporting such equipment on the future of the site. Tall towers and long bladed propellers are difficult to carry, sometimes the cost of this operation is 20% that of the equipment itself. A wind thus requires a major investment of tens / hundreds of millions of euros. It is a long term investment for 10-12 years, which is of course a disadvantage.

## MATERIAL AND METHODS

In a generic sense, when we say, alternative energy, or renewable energy sources, we refer primarily to: wind, biomass and solar energy.

In formulating this material are numerous studies and documentation, both in specialized work, and from press articles, profile sites and official information of state institutions, especially the Ministry of Economy. The data presented are drawn primarily from the "Energy Strategy of Romania for the period 2007-2020. [8]

To reflect the national potential of renewable energy sources and resources of Romania were used in a number of indicators such as: wind potential expressed in megawatts of installed capacity, the amount of electricity produced from hydro (TWh), the quantity of heat (PJ) obtained biomass, biogas and geothermal energy, etc.

## RESULTS AND DISCUSSIONS

In an economy increasingly globalized country's energy strategy is done in the context of developments and changes taking place worldwide. Total energy demand in 2030 will be around 50% higher than in 2003 and oil will be around 46% higher. Certain known oil reserves could sustain current

levels of consumption, by 2040, while natural gas until 2070, while world coal reserves provide for over 200 years, even an increase operation. [X] Economic growth forecasts, which will imply a greater consumption of energy resources. In terms of primary energy consumption structure in the world, evolution and prognosis of the reference made by the International Energy Agency (IEA) for the next decade show a faster increase of the share of renewables energy sources and natural gas.

At Community level, it was established that by 2010, a 21% electricity in EU Member States come from renewable energy sources. This target has been provided by the Directive. 2001/77/EC on the promotion of electricity produced from renewable energy sources, which establishes differentiated national targets. Given current policies and efforts made, is expected to reach a share of 19% by 2010. In this context, the EU, in all likelihood, has reached renewable energy targets set for 2010.

Italy, United Kingdom, France has exceeded the threshold of 4,000 MW, much of the latter comes Portugal, and Denmark has already achieved the target set by the European Union member states: that by 2020 one fifth of energy needs come from renewable sources.

Table 1. Renewable energy resource potential in the European Union

Source	Electricity TWh/an
Wind Energy	80.0
Hydropower, - high power - low power	355.0
	300.0
	55.0
Photovoltaic Energy	3.0
Biomass	230.0
Geothermal Energy	7.0
TOTAL	675.0

*SOURCE: Energy Strategy of Romania for the period 2007 – 2020*

**Romania** has the highest potential in the south - eastern Europe in wind energy, as Erste said in a report quoted by Mediafax. [2] The same report, it appears that south-eastern Dobrogea year ranks second in Europe

regarding the potential development of wind farms.

Our country's wind potential is estimated at 14,000 megawatts installed capacity at an annual consumption of 23 TWh.

The table below can be seen on the national potential of renewable energy.

Table 2. Romania's renewable potential

Source	Annual potential	Application
Solar Energy	60 PJ	Heat
	1,2 TWh	Electricity
Wind Energy	23 TWh	Electricity
Hydropower, which below 10 MW	36 TWh	Electricity
	3,6 TWh	Electricity
Biomass and biogas	318 PJ	Heat
Geothermal Energy	7 PJ	Heat

*SOURCE: Energy Strategy of Romania for the period 2007 – 2020*

In Romania, in late 2009 only 14 MW were installed, but in 2010 there has been a real boom, leading to 457 MW, according to Wind Energy Producers Association (APEER). Our country has thus ranked 22 in top 30 most attractive countries for investors in green energy.

Wind potential is excellent, about 23,000 MW per year (this capacity is even higher than the total installed capacity of Romania, which currently amounts to 18,000 MW). From this point of view, Romania is the second in Europe after Germany, but investors are confronted with various obstacles: lack of training at national level maps of wind speed and direction, non-existent or underdeveloped infrastructure in some areas with good potential, roads hardly supports transport of oversized high capacity turbines.

Then there is the issue of legislation: we have a law to promote renewable energy since 2008 (Law 220/2008, amended by Law 139/2010), but is not applied because the Commission has not received the notice. According to this law, producers of energy from such sources that receive green certificates traded on a specialized market, independent power production, at a price between 27 and 55 per certificate. For example, a delivery system

MWh of wind energy, green growers will receive two certificates, one from as far received under a government decision in 2004.

Despite these setbacks, the first national, a Romanian city will abandon the classical in favor of electricity sources. In 2012, the spa and climatic Slănic Moldova, Bacău County will become the first city of Romania's energy independent. The initiative took the form of a pilot project called "Green Carpathians - 2012" which seeks to achieve 30 million euros investment in renewable energy. "The main objective of this partnership is to achieve energy independence for Slănic Moldova by the end of 2012", said for Agerpres, Mayor Adrian Șerban. The first step to achieving this goal has resulted in the signing of an implementation agreement between the municipalities in the German city Reuth, Saxony and Slănic Moldova. "From what I know is the fastest sign of cooperation between officials of two countries in renewable energy, so that thanks to the interest shown by officials Slănic Moldova, people very open to promoting a new, environmental and business concerns in Saxony promotion of renewable energies, where our city is already a special experience", said Ulrich Lupart, Mayor Reuth. According to the latest assessment (2007), Romania landscaped technical **hydropower** potential is 36,000 GWh / year of which related to the current market price of energy can build in terms of economic efficiency, about 30,000 GWh / year (economic potential arrange). [8] Currently, the hydropower potential leverage is 48% technical arrange and arrange the economic potential is 57.8%.

If we map the distribution potential of renewable resources in Romania, noted that renewable energy sources are located in: Delta (solar energy), Dobrogea (solar and wind energy), Moldova (hydropower, wind and biomass energy), Carpathians (biomass and hydropower), Plateau of Transylvania (hydropower), the Western Plain (geothermal energy), the Subcarpathians (biomass and hydropower) and the Southern Plain (biomass, geothermal and solar).

Photo 1. Renewable resource potential map of Romania



*SOURCE: Ministry of Economy and Finance Energy Strategy of Romania for the period 2007 – 2020*

**Legend:**

- I. Delta Dunării - Danube Delta (solar energy);
- II. Dobrogea (solar and wind energy);
- III. Moldova (plains and plateaus - micro hydro, wind and biomass energy);
- IV. Munții Carpați - Carpathian Mountains (IV1 - Eastern Carpathians, IV2 - South Carpathians, IV3 - Western Carpathians (biomass, micro hydro);
- V. Plateau of Transylvania (micro hydro);
- VI. Câmpia de Vest - Western Plain (geothermal energy);
- VII. Subcarpații - Subcarpathians (VII1 - Subcarpathians Getici; VII2 - Subcarpathians Curburii, VII3 - Subcarpathians Moldova: biomass, micro hydro);
- VIII. Câmpia de Sud - Southern Plain (biomass, geothermal and solar energy).

With the exception of large hydropower plants, the cost of producing electricity using renewable units are now higher than those associated with fossil fuels. Promote the use of these sources and to attract investment in energy facilities that use renewable sources is achieved by supporting mechanisms, in accordance with European practice.

*Energy is used both in economy and in the home. Virtually every human activity using energy in various forms. **Energy resources are vital to human society today!***

In Romania, energy production relies mainly on coal, as shown in Table 3. Oil is used in the petrochemical industry as feedstock for various derivatives and to obtain fuel.

Table 3. Market structure in 2008, in Romania (%)

Coal	Hydro power	Nuclear energy	Hydrocarbons	Wind energy
43.00	25.98	17.00	14.00	0.02

SOURCE: www.transelectrica.ro

Most commonly used form of energy is electricity, all other forms of energy being used in different proportions for conversion into electricity, which in turn can be easily transformed into other forms of energy (mechanical, heat, light, etc.).

But oil is a form of fossil fuels which is mostly used for transport. In the U.S., oil is the dominant resource and technology used in transport with 71% providing 95% of its fuel needs, 23% in industry and ensuring the necessary 42%, resulting in a high dependency of the U.S. economy in relation this limited resource.

One of the priorities of Romania's energy strategy is to improve **energy efficiency**. Increasing energy efficiency is a major contribution to achieving security of supply, sustainability and competitiveness. Reducing energy demand through energy efficiency is a winning policy, which, in addition to saving primary energy resources, lead to reducing greenhouse emissions.

Representative synthetic indicator of the effectiveness of national energy use is energy intensity, that energy to produce one unit of Gross Domestic Product (GDP).

Discovering and using new energy resources has remained a natural concern in the world, on the one hand due to the rapid depletion of fossil fuel reserves and secondly because of the energy dependence of those states that have fuel reserves.

## CONCLUSIONS

1. The overall objective of Romania's energy strategy is to fully cover the domestic consumption of electricity and heat in terms

of growth of the country's energy security, sustainable development and ensuring an adequate level of competitiveness.

2. Romania is very poor in Chapter efficient use of energy, energy intensity (energy consumption to produce one unit of GDP) is three times higher than in the EU. One is the competitiveness of the strategic goals involving the development of competitive markets for electricity, natural gas, oil, green certificates, emission allowances of greenhouse gas and energy services.

3. In terms of legislative and institutional framework, it points to its improvement in accordance with relevant Community legislation, currently being applicable laws of electricity, gas, mining, oil, nuclear activities, use energy efficient, harmonized with EU legislation.

4. Romania has opted for the model of decentralized electricity market in which participants are free to conclude the sales transaction - buying the electricity market is structured in: wholesale and retail market. It should be noted that the state has retained control over the main pack power generation units, totaling an installed capacity sufficient to ensure energy security of the country.

5. Although Romania is quoted with great potential for exploitation of renewable energy, one of the reasons that hindered the development of this sector was uncertain legal framework that will provide facilities for investors. However, the Czech company CEZ has placed into service a part of the wind farm that it develops in Dobrogea, with an initial capacity of 350 MW. Other global players in the field, such as Iberdrola Renewables, Martifer or Enel announced their intention to develop wind farms in Romania. The company also plans to Romanian Electrical energy production from wind and biomass, and aims Hidroelectrica new wind turbine location. [3]

6. Regarding *sustainable development*, it should be noted that, in 2007, was the energy sector at EU level, one of the leading producers of greenhouse gases. If not taking drastic action at EU level, the rate of energy consumption and development of existing

technologies in 2007, emissions of greenhouse gases in the EU will increase by about 5% and globally by about 55 % by 2030. [8] Nuclear energy in Europe is currently one of the largest sources of energy without emitting CO<sub>2</sub>. Nuclear power in 2007 ensured a third of EU electricity production, thus having a real contribution to sustainable development.

7. When we talk about *sustainability in energy*, we must refer to:

- improve energy efficiency;
- promote energy production on renewable resources;
- supporting the research - development and dissemination of research findings applicable;
- reducing the negative impact of energy on the environment;
- promoting energy production based on renewable resources, such as electricity consumption derived from renewable energy resources represent 33% of gross domestic electricity consumption of 2010, 35% in 2015 and 38% in 2020;
- stimulating investments in improving energy efficiency throughout the chain: resources - production - transmission - distribution - consumption;
- promoting the use of liquid bio-fuels, biogas and geothermal energy;
- reducing the negative impact of energy on the environment by using clean technologies.
- promoting the production of electricity and heat cogeneration plant, especially in highly efficient cogeneration plants;
- rational and efficient use of primary energy resources.

8. Reducing negative effects of energy production process on climate requires practical and sustained action. In this context, Romania has supported and coherent action to align with European actions to promote the Lisbon objectives. In order to limit the expected global temperature increase, ie the emission of greenhouse gases, Romania must

act promptly, especially in energy efficiency and renewable energy.

9. *Atomic energy* already constitutes 17% of total electricity worldwide. In 1996 a report found that there were 437 reactors in 31 countries. They cover domestic consumption of energy in Lithuania 87%, 78% in France, 58% in Belgium and 53% in Sweden. In U.S., there are 32 companies licensed and authorized to work with nuclear reactors, and statistics show that in four major U.S. regions, nuclear energy provides more than 50% of electricity consumption: Vermont (79.7%), Connecticut (51.2%), South Carolina (50.9%), New Jersey (50.4%). Nuclear plants also have disadvantages, such as the fact that they need 10 years to be built, construction costs and energy production, although varying from one country to another are very high, and produce a series of radioactive waste extremely harmful to the environment and for people with major problems of storage. Chernobyl nuclear accident in 1986 questioned the safety of nuclear power generation industry, causing mass protests that led to the closure of such plants. In anticipation of such an exceptionally serious incident in Sweden since 1980 conducted a referendum to decide the total renunciation of nuclear energy by 2010.

10. Actions to promote energy efficiency and renewable energy sources will contribute both to reducing negative environmental impacts, and increase energy security, reducing dependence on energy imports to Romania.

11. Discovering and using new energy resources has remained a natural concern in the world, on the one hand due to the rapid depletion of fossil fuel reserves and secondly because of the energy dependence of those states that have fuel reserves.

## REFERENCES

- [1] Brown L. R., 2006, Plan B2.0: Rescuing a planet under stress and a civilization in trouble - Planul B 2.0 Salvarea unei planete sub presiune și a unei civilizații în impas, Editura Tehnică, București.
- [2] Catană M. Francisca, 2009, Legislația, un risc pentru energia eoliană, Cotidianul Adevărul, București, 6. februarie. 2009, p. 38.

[3] Cioacă Florentina, 2009, Cum aplicăm noua lege a energiei regenerabile, Cotidianul Adevărul, București, 6. februarie. 2009, p. 44.

[4] Colteanu C., Inovația poate aduce un alt fel de prosperitate în Europa, articol publicat pe [www.wall-street.ro](http://www.wall-street.ro), 17.martie.2011.

[5] Ghereș M., Săvoiu G., 2010, Economia mediului. Tratat, Editura Universitară, București.

[6] Săvoiu G., 2010, Gândirea statistică aplicată, Editura Universitară, București.

[7] x x x – Institutul Național de Statistică, Anuarul statistic al României, 1990 - 2008.

[8] x x x – Ministerul Economiei și Finanțelor, 2007, Strategia energetică a României pentru perioada 2007 - 2020, Varianta 4.septembrie.2007, aprobată prin H.G. nr. 1069 / 2007.

[9] Web sites:

- [www.enero.ro](http://www.enero.ro);
- [www.oecd.org](http://www.oecd.org);
- [www.ecomagazin.ro](http://www.ecomagazin.ro);
- [www.realitatea.net](http://www.realitatea.net);
- [www.siteresources.worldbank.org](http://www.siteresources.worldbank.org);
- [www.ec.europa.eu/eurostat](http://www.ec.europa.eu/eurostat)
- [www.insse.ro](http://www.insse.ro)
- [www.wall-street.ro](http://www.wall-street.ro)
- [www.transelectrica.ro](http://www.transelectrica.ro)

## **SOCIO-ECONOMICAL DIAGNOSIS OF THE ROMANIAN RURAL COMMUNITIES IN THE HILLY AREA OF VRANCEA COUNTY**

**Andreea Daniela PASCU<sup>1</sup>**

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine, Bucharest  
59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232,  
Fax: + 40 21318 28 88, E-mail : pascu7884@yahoo.com

**Corresponding author** : pascu7884@yahoo.com

### **Abstract**

*The paper presents the situation of the rural communities in the hill area of Vrancea county. The methodology used to establish the development level and the assessment of the opportunity and restrictive items set of the diversified development in the rural community in the hill area, is the specific one for socio-economy. The research units were the following: rural parish and house hold. For a more precise assessment data were collected about a number as high as possible of noticed facts. Due to the many requirements involved by the current study, the following research instruments were used: parish sheet, and questionnaire for rural house holds. Data analysis was done on four levels: demographic dimension, educational dimension, activity dimension, activity mobility. The analyzed parishes Tamboiști, Popești și Urechești have the specific traits of the periurban rural parishes. As a conclusion the periurban parishes benefit from the closeness to the city through the economic opportunities that the town offers, by being opened to innovation and population mobility.*

**Keywords** : Romanian rural communities, periurban hill area, rural house hols, Vrancea county

### **INTRODUCTION**

This paper presents the current socio-economic status of rural areas[2], it is the starting point of research that aims to set out the: ways to modernize and diversify agricultural activities[1] and the know-how developing non-agricultural sector[3], this can increase awareness and occupational diversification income-generating opportunities activities with varying degrees of risk (some examples of non-agricultural activities: agricultural products processing, development of small business, the nature of pension income, interest and dividends, and income derived from activities conducted in temporary urban areas) . Finding durable solutions for the use of such research, promotion of appropriate mechanisms necessary to integrate research results in effective rural policies are imperative for sustainable socioeconomic development[5].

### **MATERIAL AND METHODS**

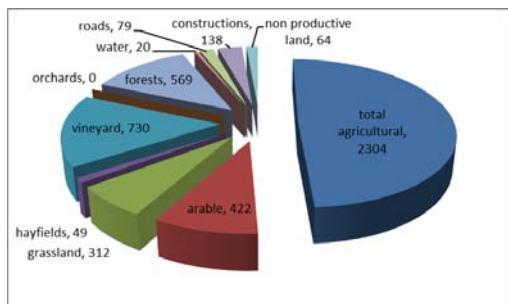
In order to present the current state of peri-urban rural communities from the hilly area,

the paper proceeds to assess their resources and local issues, the criteria used are: demographic, economic, social and sociological, thus determining general and specific objectives of development . The methodology used to determine the level of development and evaluation of the set of opportunities and restrictive elements of a diversified development of rural communities in the hilly area, is the specific to Socio-economy. Due to the multiple requirements posed by this study we used the following research tools: parish sheet (and interview technique was working, it was done in one day for each community and respondents were members of local government ) and the questionnaire for rural households (the size of each community sample amounted to 25 households). The period considered in this paper is 2006-2010. Municipalities examined: Tamboiști, Popești and Urechești, features suburban rural communes.

### **RESULTS AND DISCUSSIONS**

Qualitative study investigated rural communities - parish sheet

Tâmboiești commune consists of four villages, Tâmboiești, commune residence, Slimnic, Padureni and Trestieni.



Graphic 1. Structure of land use (hectares)

3755 people of Romanian nationality lived in the village in 2008. [4] Migration in the last three years has not affected the number of people in the commune. Tâmboiești village is fully electrified. There is no gas supply and sanitation. Sanitation is granted. In the village there are almost 1,100 TV subscription and 1500 radio subscriptions. Educational infrastructure consists of two kindergartens, three middle schools and two primary schools with 28 teachers, all university graduates. Religious infrastructure is well represented by five churches of different denominations.

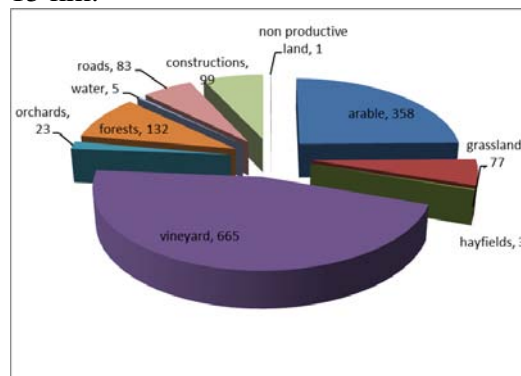


Photo 1. View from Tâmboiești commune

Table 1 . Key problems in the perception of the authorities from Tâmboiești

Problem	No problem	There is a very easy problem	Easy problem	Serious problem	Very serious problem
Roads			X		
Drinking water	X				
Isolation	X				
Air Pollution		X			
Water Pollution	X				
Soil Pollution	X				
Periodic Flooding			X		
Medical Services		X			
Education Services			X		
Electrification			X		
Public Lighting		X			
Ethnic conflicts	X				
Land Conflicts	X				

Popești commune is composed of a number of two villages: Popești, commune residence, and Terchești. The nearest town is Focsani, at 15 km.



Graphic 2. Structure of land use (ha)

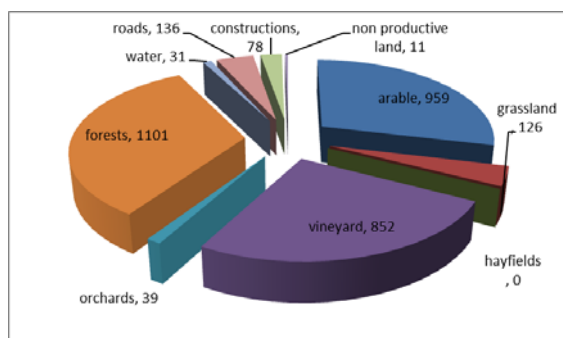
In 2008 population size was of 3380 inhabitants[4], of which 30% were older than 60 years. Common Migration in the last 3 years was reduced. Technical and management infrastructure is poor. There is no gas supply and water supply system or sewage system. The village is fully electrified. Infrastructure designed to support the educational process is relatively well developed. There are three kindergartens with 90 seats. The educational process is ensured by a total of 22 teachers. There are there around 1320 radio and television subscriptions in this commune which means that over 98% of households are connected to these sources. There aren't post offices, but the postman arrive daily in each village. Health services are provided by a clinic, a dentist and a pharmacy. The entire population of the surrounding village is decerved by a physician who is assisted by four nurses. The religious infrastructure is represented by a total of four churches of orthodox religion. There is a commune cultural center used for both sessions and meetings and cultural activities. There in also a library in Popești.

Located in Vrancea County, about 20 km from the nearest town Focsani Urechești commune is composed of a single village: Urechești.



Table 2. Key issues in the perception of the authorities from Popești

Problem	No problem	There is a very easy problem	Easy problem	Serious problem	Very serious problem
Roads				X	
Drinking water			X		
Isolation	X				
Air Pollution	X				
Water Pollution	X				
Soil Pollution			X		
Periodic Flooding	X				
Medical Services		X			
Education Services				X	
Electrification	X				
Public Lighting			X		
Ethnic conflicts	X				
Land Conflicts	x				



Graphic 3. Structure of land use (ha)

Economic diversification is at an early stage the main occupation is viticulture and agricultural products processing. About 10 department supply the population. 2761 people lived in the village in a number of 1019 households in 2008. Of these 4% are gypsies[4].

Urechești village is fully electrified. There is running water that serves 670 households, there is no sewerage system. In the village almost 90% of households have radio and TV subscriptions. Infrastructure is represented by a subsidiary of CecBank and the Credit Cooperative. Educational infrastructure comprises two kindergartens, two middle schools and one secondary school. Teachers are in a number of 20, 16 with high education. Two trained medical doctors and a nurse provide medical care in this commune. There are a dentist and a pharmacy. Five Orthodox churches and a Adventist house of worship belong to religious infrastructure .

Quantitative study of rural households investigated population-size.

The average household size for the sample is composed of settlements of 3.4 persons per

household in the village Tamboiești, 3.12 and 3.32 in the village Urechești and Popești.

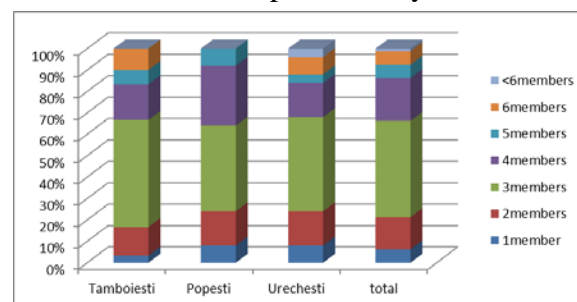
Table 3. Key issues in the perception of the village authorities from Urechești

Problem	No problem	There is a very easy problem	Easy problem	Serious problem	Very serious problem
Roads					X
Drinking water				X	
Isolation					
Air Pollution	X				
Water Pollution	X				
Soil Pollution	X				
Periodic Flooding	X				
Medical Services		X			
Education Services		X			
Electrification	X				
Public Lighting		X			
Ethnic conflicts	X				
Land Conflicts	x				

Table 4. Average age of household members studied  
Source: Calculations after own database

The commune	The average age
Tâmboiești	48.4
Popești	37.1
Urechești	37.1
Average	40.7

An important predictor of openness to occupational diversification of rural communities is knowing the people age, a younger population has a higher degree of openness to innovation, greater occupational mobility and greater openness toward retraining. Average age of household members in the sample is 40.7 years.



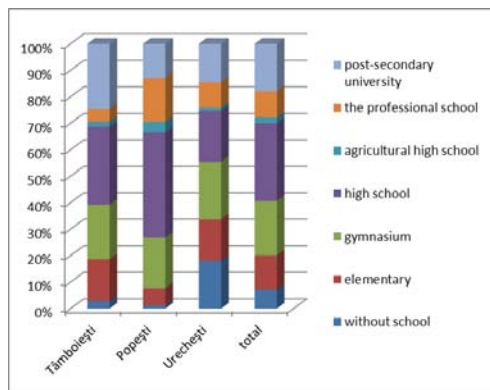
Graphic 4. Structure of households after the number of persons

Source: Calculations after own database

The greater the number of people living in the same household, the higher the pressure on available land resources because they must ensure the minimum of subsistence for many people.

-The Educational Dimension

On average, Popești residents graduated the largest number of school years - 11.07, they are followed by those of Tâmboiеști 10.54, below the average number of years of school graduation in the sample population, is commune Urechești the aforementioned indicator value is 8.28 years of school for the average person. This can be explained by the higher proportion of those without school.



Graphic 5. Population structure of the sample after the the last grade of education

Source: Calculations after own database

Employment-Size

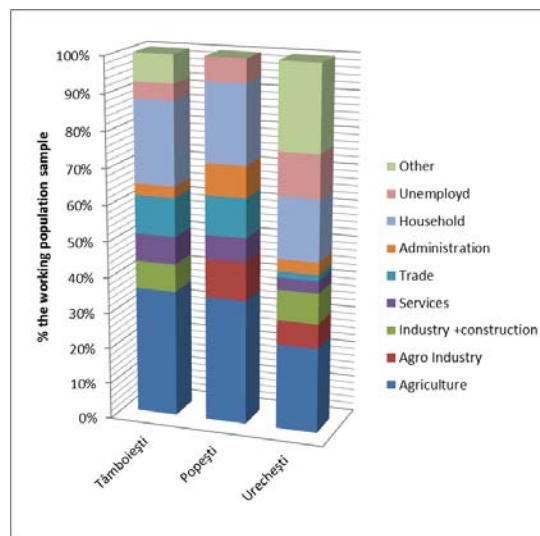
The percentage of employment in the sample is 52.36% which means that the economic dependency ratio (- number of unemployed and inactive people to return to a busy person, amounts to 0.94%).

Depending on the economic dependency ratio we can group the communes in three categories:

1. Communes with a favorable economic dependency ratios (under 1) - Popești - 0.62, Tâmboiеști - 0.96, whereas a employed person must sustain, by economic activity, less than an inactive person.

2. Communes with a weak economic dependency ratios (between 1 and 1.4), 1.24 Urechești.

3. Communes with unfavorable economic dependency ratios (over 1.4)

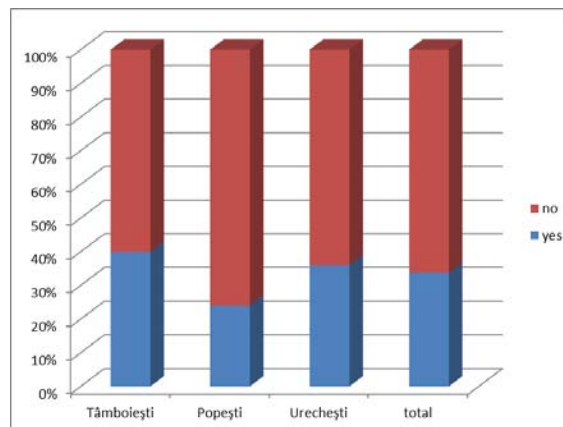


Graphic 6. The structure of the sample population after the the main activity

Source: Calculations after own database

Analysis of occupational diversification within each commune allows to classify them according to importance of the main economic sectors in employment- active population occupational structure dominated by the primary sector - agriculture - (Tâmboiеști, Popești and Urechești).

-Occupational mobility is a good predictor of economic diversification and, especially, the chances of multiplication of sources of income in the household. In the whole sample the share of employees involved in international migration is double compared to the number of working people involved in internal migration.

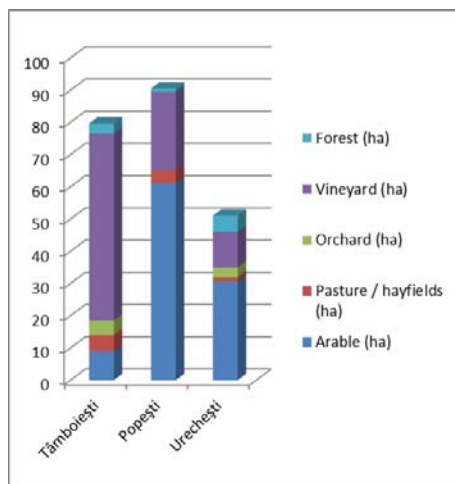


Graphic 7. The share of households with members who left for a job

Source: Calculations after own database

A high occupational mobility is a sign of greater openness to understanding and acceptance of new ideas and practices in professional life. Municipalities have a low occupational mobility Tamboiești -12.74% - Popești - 11.53% Urechești-14-45%.

Land-size

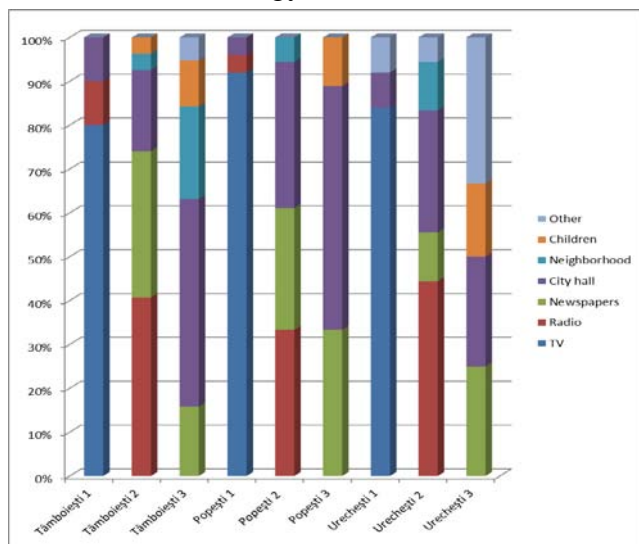


Graphic 8. Structure of agricultural land

Source: Calculations after own database

The study covers a total of 80 households, divided into 3 commune and 1 district, with a total land area of 252.85 ha property.

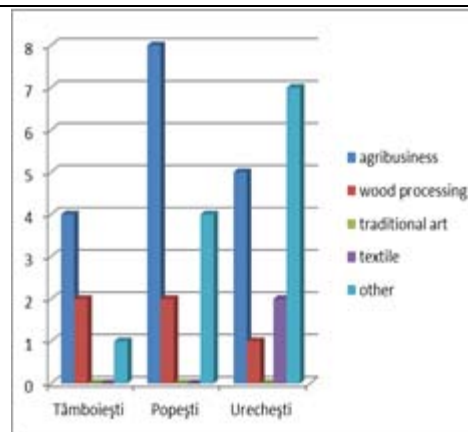
- Information Strategy



Graphic 9. The most common sources of local information, the first three options.

Source: Calculations after own database

-Aspirational Universe



Graphic 10. The areas chosen by respondents who would be willing to engage

Source: Calculations after own database

CONCLUSIONS

1. A higher proportion of households located in these municipalities is a subject to risks such as the inability to renew the working force in the future and to have a lower degree of tolerance and openness to innovation due to lack of young working population quotas. The relationship between positioning and size to the average urban household in the county of Vrancea is related to the possibility of material support of family (land ownership, employment in the village) and education (as in a number of members of families with higher education is at a lower level).

2. In generally hilly suburban populations have a lower instructional level and they do not recover the position rent comparing to urban centers that would allow easier access to higher education infrastructure. Peri-urban populations in hilly villages do not seem to value education more as an opportunity to obtain a better paid job that requires a longer training.

Populations of villages with higher educational levels may have a better chance of accessing the labor market and a greater ability to quickly internalize new knowledge, even order something more technical and specialization. Specialization in agriculture is extremely low.

3. In suburban commune level, it was found that agricultural activities decrease in importance in proportion to proximity to urban areas (by decreasing agricultural land

area, number of animals visible through a process of land lease).

4. Most of the households owners that were studied are seniors, they lease their land and they live with their children and their families.

5. Most of those who take or give land on lease in suburban municipalities do not work on a contract basis, except in municipalities where there are associations in this respect, lease contracts frequency is higher in suburban municipalities.

6. Occupancy of the active population is lower in suburban municipalities. In general, in the hilly areas, the economic dependence of the population is more pronounced in suburban municipalities, the number of unemployed and inactive persons who must contribute to support each person employed is higher

7. Respondents from villages in the hilly region are willing to employ if they were offered this opportunity. Most of the respondents in suburban communes aim, in case that they would employ, fields in the agricultural sector as a main sector. But they aren't limited to processing agricultural products, but in an almost equal proportion they would be willing to work in other areas. There is a significant openness for employment opportunities not related to the exploitation of rural resources, over 33% of respondents intending to engage in other activities

## ACKNOWLEDGEMENTS

This research work was supported by University of Agricultural Sciences and Veterinary Medicine Bucharest. Also we thank the city hall of municipalities Tamboiești, Urechești, Popești and all those who have responded positively to the steps needed to carry out this work.

## REFERENCES

[1] Dona Ion – Politici agricole, Editura Semne, București, 2000.

[2] Drăghici Manea și col. – Spațiul rural. Definiere. Organizare. Dezvoltare – Editura Mirton, 2003.

[3] Zăhău Letitia și colab- Agricultura Uniunii Europene sub impactul Politicii Agricole Comune, Ed. Ceres, Bucuresti, 2006

[4] \*\*\* Anuarul Statistic al României, INS, 2005

[5] \*\*\* Dezvoltarea rurală în România. Carta Verde, 1998. Ministerul Agriculturii și Alimentației, PHARE RO 9505-04-03, București

## CONTRIBUTIONS TO THE DRAFTING OF THE SUSTAINABLE SOCIO-ECONOMIC DEVELOPMENT STRATEGIES FOR SIRIU MICROREGION

Andreea Daniela PASCU<sup>1</sup>

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine, Bucharest  
59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232,  
Fax: + 40 21318 28 88, E-mail :pascu7884@yahoo.com

**Corresponding author** :pascu7884 @yahoo.com

### Abstract

*The paper presents Siriu area, rural community in the mountain area of Buzău county, from a durable socioeconomic development. A series of procedures, instruments and techniques were used that allowed a more exact cognition of the rural phenomena and processes, among which: commune sheet and focus-group. The development strategy of Siriu parish for 2007 – 2013 follows a durable development by valuing the local potential in accordance with the general objective of the National Development Plan 2007-2013. The main objectives of the durable development of Siriu parish are: parish basic infrastructure development; environmental protection; social cohesion increasing and poverty reduction; tourism development and advertising and rural rebirth. As a conclusion the rural development depends on all the actors of the rural development and Siriu area is one of the communities that understood the basic principles for rural socioeconomic development and that uses these both in the on going projects and in the ones in draft state.*

**Keywords** : rural community, sustainable socioeconomic development, local potential, Siriu area

### INTRODUCTION

The paper emphasizes the important role rural communities play in: producing food and natural fiber, in the management of rural areas and nature conservation [2], thus sustainable rural development, which is defined as improving the lives of everyone "now and for generations to come" was, is and will be a priority for people in the rural areas and for the beneficiaries of the products and services from the rural communities. After 1989 the agricultural area of Romania was torn [1], Gheorghe Ionescu Sisești said that "The earth is like a diamond, if is divided, it loses its value. " Currently the farm number in Romania is of 3,931,350, the utilized agricultural area is of 13,753,046.49 (hectares), the agricultural area used, which returns for an average farm is of 3.5 hectares[3]. In this context the paper examines Siriu microregion, a rural community in the mountainous area of the county of Buzau, in terms of sustainable socioeconomic development[4].



Photo 1. View from common Siriu

### MATERIAL AND METHODS

Data regarding a large number of observable facts focusing on Siriu socioeconomic status were collected, gathering which took place in different contexts and were used as research tools: commune sheet (technical work - the interview, it was conducted two days, and those who were interviewed were members of local government) and focus-group (in horizontal communication more people are encouraged to speak with each other, information is transmitted naturally) . Steps

that were taken to achieve the focus-group were as follows: sampling and construction of the discussion group (in order to obtain a full compatibility of the participants and get a lot of data / information a sample has been built consisting of formal and informal leaders of the community), moderated discussion group based on topics of interest for research, deployment-time collective discussion lasted 3 hours, and the last stage was the construction of the interview guide. The period considered in this paper is 2006-2010. Data gathered from these interviews in conjunction with data provided by the Ministry of Agriculture and Rural Development and National Institute of Statistics were processed and incorporated into the village Siriu Development Strategy for the period 2007 – 2013, areas of analysis are: agriculture, forestry and rural development, infrastructure and the environment, economic situation, tourism, education and culture, human resources.

## RESULTS AND DISCUSSIONS

In the administrative county of Buzau, the Siriu commune is identified as a relatively large and includes villages Cașoca, Coltu Pietrii, Gura Sirlului, Lunca Jaristei (which is the home village) and Muscelușă. Village administrative territorial area is of 22,243 (hectares), from which 310 (hectares) are found in built-up area[5].

Table 1. The land of the village Siriu

CATEGORY	AREA (hectares)
Forest	18.620
Pastures and hayfields	2.434
Water surface	602
Orchards	62
Arable land	37

The village territory is crossed by DN10 Buzau - Brasov on a length of 21 km.

There is a centralized drinking water supply, the village is connected to the national energy system, but there is no centralized heating or central heating, there is also no supply and distribution network of natural gas.

At local level there is a private consulting room, served by a family doctor, three nurses and a dentist;



Photo 2. View from Siriu commune

In this commune there are areas with natural hazards. Garbage dumps throughout the village give a desolate appearance and some of the discarded materials are toxic.

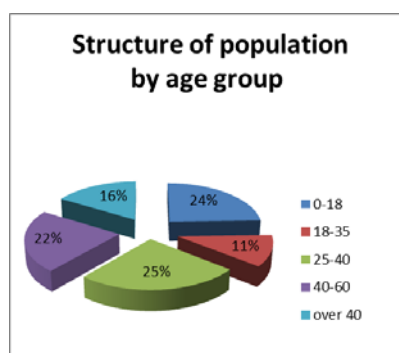
Types of economic activity:

- cattle breeding- there aren't livestock farms in municipality, farm animals are being raised in households;
- picking berries (raspberries, blueberries, blackberries) or cultivated fruits (apples, plums, cherries, quinces, pears, etc..), in insignificant quantities, they are harvested for household use;
- There are two economic agents which are specialized in woodworking, a company specialized in leather, fur and footwear manufacturing.
- There is also a society specialized in hydraulic structures, SC Hidroconstructia Bucuresti SA;
- Tourism activities: Siriu village has a great tourism potential, on its territory there are 7 hostels and three restaurants, there are many mountain trails that cross Siriu Mountain, but they are often unmarked or poorly marked. The existing commercial societies sale 90% goods and 10% household goods. Tourism in Siriu area is in a continuous development, taking into account the picturesque and beautiful area. The Siriu commune has 7 educational units with 35 specialized teachers, there are also a cultural center and a library.

Table 2. Structure by sex and age group population

Sex		Age groups (years)				
		0-18	18-25	25-40	40-60	Over 60
Men	1643	776	425	779	702	515
Women	1554					
Total	3197	3197				

Therefore, we see a slightly different situation from that of the average rural localities in Romania, with a gender-reversed structure, with 51.4% of male population and 48.6% female, while the potentially active population (between 18 and 60 years, namely 1906 persons) represents 60.2% of the population[5].



Graphic 1. Structure of population by age group

Local development strategy is both a planning process and a product that promotes partnership among various local actors: local government, local community, private sector and civil society representatives, in order to examine together the issues development, the image created for the future / predictions of the future, for mobilizing resources, developing strategies in different projects and also the implementation, monitoring and evaluation of these projects.

Local Action Plan, is a tool for planning and implementation, it contains a set of elements that apply to fields of activity in a particular period in order to achieve the general objectives set out in the strategy.

The main objectives of sustainable development of the village Siriu are:

1. development of basic infrastructure of the village;
2. environmental protection;
3. strengthening social cohesion and poverty reduction;

4. development and tourism promotion;
5. rural regeneration.

Portfolio of priority projects for 2007-2013

1. Upgrading roads
2. The expanding and upgrading sidewalks in the village
3. The extension of water supply network
4. Establishment and extension of low voltage network and public lighting in the village of Gura Siriului
5. Making the sewerage network and treatment plant
6. Set up food and gas distribution network
7. School and kindergarten rehabilitation in the municipality Siriu
8. Expanding and upgrading the village community center Siriu
9. Organisation of the selective collection of space for temporary storage and transport of waste
10. Upgrading / extension of public lighting in the village
11. Upgrading and equipping the human dispensary
12. Build and equip a playground for children
13. Establish a municipal park
14. Construction of a sports hall and sports facilities planning
15. Land Reclamation in the planning necessary to ensure the cattle breeding
16. Buzau river bed adjustment and arrangement
17. Expanding and upgrading the Town Hall Siriu

## CONCLUSIONS

1. Local governments need to strengthen institutional capacity at all levels of decision and execution, assuming that attract and provide sufficient financial resources and mobilizing human resources, identifying the most effective mechanisms for communication and analysis framework for assignment of responsibilities.

2. Addressing current issues and the future ones depends heavily on the competence of local government management.

3. A main concern of the local authority should be the harmonization of the administrative procedures with the European

Union.

4. Sustainable rural development process is a lengthy and complex process, it depends on the actors of rural development and also on the national economic and political conditions.

5. Only by working together Siriu community can develop harmoniously and only pursuing its general interests, every individual can enjoy the benefits of development.

## **ACKNOWLEDGEMENTS**

This research work was supported by University of Agricultural Sciences and Veterinary Medicine Bucharest. Also we thank the mayor of the village Siriu and all those who responded positively to the steps needed to carry out this work.

## **REFERENCES**

[1] Dona Ion – Politici agricole, Editura Semne, București, 2000.

[2] Zahiu Letitia și colab- Agricultura Uniunii Europene sub impactul Politicii Agricole Comune, Ed. Ceres, Bucuresti, 2006

[3] \*\*\* Anuarul Statistic al României, INS, 2005

[4] \*\*\* Dezvoltarea rurală în România. Carta Verde, 1998. Ministerul Agriculturii și Alimentației, PHARE RO 9505-04-03, București

[5] \*\*\* Plan Urbanistic General comuna Siriu județul Buzău



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## THE PARTICULARITIES OF ECONOMY IN POLAND

**Daniela POPA**

The State Agricultural University of Moldova, 44, Mircesti st., MD- 2049, Chisinau, Republic of Moldova  
Phone: +373 22 43 25 85, Fax: + 373 22 31 22 76

**Corresponding author** : d.popa@uasm.md

### **Abstract**

*The paper aimed to present the Polish agriculture which is characterized by significant dispersion, as an average size of agricultural holdings is about 10,15 ha of agricultural land, and more than half of the holdings produce only or mainly for their own use, thus reducing their expenses on the purchase of food as well as other family expenses. It is based on the statistical data provided by the Ministry of Agriculture and Rural Development from Warsaw, Agricultural Market Agency from Warsaw, Agency for Restructuring and Modernizations of Agriculture from Warsaw, Agricultural Property Agency, were applied the following methods: selective, comparison and tabular methods. As a conclusion Polish economy has been suffering from the outcomes of the global recession which disrupted and hampered development process, since the second half of 2008. These turbulences have also affected the agro-food sector, especially in terms of international trade. Nevertheless, by the end of 2010, the value of export increased and the turnover balance in terms of food trade was positive. It proves that the Polish food sector is a worthy competitor on the international arena.*

**Keywords:** Polish economy, global recession, export, turnover balance, Warsaw

## **INTRODUCTION**

In 2009, the Polish economy was the only Union that has avoided recession. Poland today stands out as one of the most successful and open transition economies. The privatization of small and medium state-owned companies and a liberal law on establishing new firms marked the rapid development of a private sector now responsible for 70% of economic activity. In contrast to the vibrant expansion of private non-farm activity, the large agriculture component remains handicapped by structural problems, surplus labor, inefficient small farms, and lack of investment. The government's determination to enter the European Union as soon as possible affects most aspects of its economic policies.

## **MATERIAL AND METHODS**

At the basis of this scientific paper served the information from the Ministry of Agriculture and Rural Development from Warsaw, Agricultural Market Agency from Warsaw, Agency for Restructuring and Modernizations

of Agriculture from Warsaw, Agricultural Property Agency, different groups of national and international experts and also our own researches in this domain, were applied the following methods: selective, comparison and tabular methods.

## **RESULTS AND DISCUSSIONS**

Agriculture employs 28.4% of the work force but contributes only 3.4% to the gross domestic product (GDP), reflecting relatively low productivity. Unlike the industrial sector, Poland's agricultural sector remains priority. Polish agriculture is characterized by significant dispersion, as an average size of agricultural holdings is about 10,15 ha of agricultural land, and more than half of the holdings produce only or mainly for their own use, thus reducing their expenses on the purchase of food as well as other family expenses. Such agricultural holdings of a relatively small area employ traditional production methods, consisting in limited use of mineral fertilizers and chemical plant protection products, as well as of industrial feed in feeding farm animals, especially cattle. Despite these phenomena and the prevalence of soils with low usefulness for agriculture,

Poland is an important European and global producer of agricultural and horticultural products, as well as products of animal origin (Table 1).

Table 1. Share and place of Polish agriculture in the world and in the EU (27 states)

	Share		Place	
	in the world	in the EU	in the world	in the EU
Production of some agricultural products				
- wheat	1,4	6,9	16	4
-rye	19,8	37,6	3	2
- potatoes	3,7	19,0	7	1
-sugar beet	5,1	11,2	7	3
-rape	4,3	11,6	6	3
-apples	1,6	10,6	12	2
-meat	1,3	8,8	14	5
-cow's milk	2,3	8,2	10	4
Stock				
-cattle	0,4	6,4	457	7
- pigs	1,8	11,3	7	3

Source: Statistical yearbook of agriculture and rural areas 2009

Poland also holds a leading position in production of berries (strawberries, raspberries and currants) and outdoor vegetables, such as: onions, cabbage and cauliflowers.

Soil and climatic conditions, as well as regional traditions, determine production specialization. In 2009 there was an increase in agricultural production: however, pace of growth was definitely slower than in the preceding year when very good production results were achieved.

Since the EU integration, a growing demand for agricultural land has been observed, resulting in an increase in land prices. The growing number of transactions in land marketing differs regionally and is conditioned mainly by: supply, different agrarian structure, economic power of agricultural holdings and diversified reasons for purchasing land. The relatively smallest turnover has been observed in southern and central Poland, where holdings are most

fragmented and where the custom of passing land to growing up children still predominates.

The highest increase in prices has been observed in case of the cheapest land with no value for agriculture, which indicates that the demand for land is not associated with agricultural production.

Dynamic growth of average farmland prices continued also in 2009. However, the price increase was slightly slower than in the previous year – both in the private trade and in case of Agricultural Property Stock of the State Treasury. By the end of June 2009, the Agency sold 1.877 thousand ha, i.e. 62% of the land remaining in the Stock. The supply of land from the Agricultural Property Stock of the state Treasury is declining; factors hampering the sales include reprivatisation claims, which concern approx 500 thousand ha. Currently, the Agency has 315,5 thousand ha of land at its disposal which are planned to be sold or leased; however, only 215 thousand ha (68% of the total land) is fit for agricultural production. The agency, since the beginning of its activity in this area, has conducted approx 680 thousand tenders, including 20 thousand restricted tenders. In certain cases, existing leaseholders have the right of pre-emption.

Significant variations in the dynamics of plant and animal production over the years result, above all, from the variability of atmospheric conditions, which influence the volume of yields and harvest and, as a consequence, lead to the reduction of feed reserves and increase their prices. This, in turn, affects the volume of animal production.

In 2008, market conditions for agricultural production deteriorated, especially in comparison with the previous year, which was particularly favourable in this regard. Agricultural economy and production in 2008 were influenced by increased cereals harvests and declining supply of slaughter pigs, which affected the prices of agricultural products in the country. Developing economic downturn on global cereals and milk markets was one of the main factors which led to the price decrease. The prices of means of production, on the other hand, were on the rise in 2008. as

the prices of agricultural products rose slower than the prices of the means of agricultural production, the index of price relations (price scissors) declined from 107,7 in 2007 to 91,0 in 2008 (figure 1).

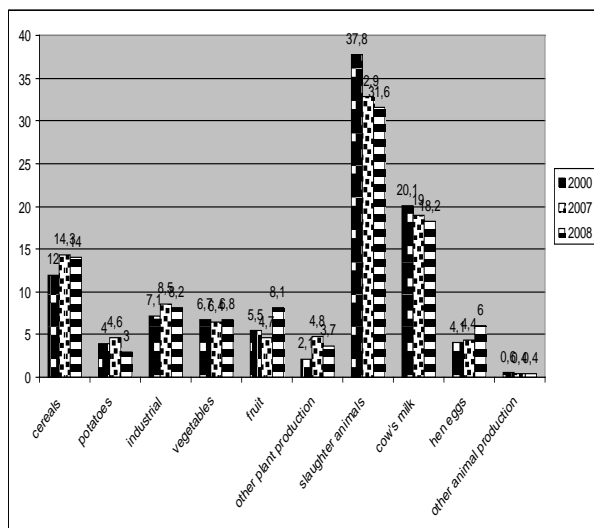


Fig.1. Structure of commercial agricultural production in 2000 and 2008 (in % - current prices)

Source: Agriculture, CSO (GUS). Warsaw, 2009

In 2008, the price index of goods and services (inflation) was 105,2% when compared to 2007, which means that increase in prices of agricultural products was slower than increase in prices of other goods and services. In this context, the increase in goods and services intended for agriculture, current agricultural production needs (112,8%) and investment purposes (105,3%), was particularly high. Fertilizers, in particular phosphorus – based, were the elements that went up most in price – respectively, by more than 38% and by almost 56%. This price hike is a result of an incremental increase in the global prices of raw materials used in the production of fertilizers. The prices of feed rose by 14% and the prices of plant protection products by almost 10%. Prices of machinery maintenance soared (an increase of 11%). Prices of other groups of means of agricultural production rose, in comparison with the previous year, by 3 – 7% - including retail prices of seeds, young trees and cuttings (3%) and veterinary services (3,1%). Differences in the increase of prices of specific agricultural products and means of production resulted in different profitability of specific lines of

production. Milk and cereals producers were in unfavourable position, whereas pork producers found themselves in a relatively good situation as the relation of the prices of means of production to the prices of pork were continually improving in 2008. In 2008, the average prices of pork increased by 15,8% when compared to 2007 and those of industrial potatoes by almost 10%. Cereals prices fell by almost 9% - and so did the prices of milk and poultry.

2009 was not very favourable for Polish farmers in terms of income. Based on the macroeconomic data, it is estimated that the minor increase of the agricultural production value was accompanied by a 9% increase of the so called „intermediate consumption” value (mainly prices of fertilizers, feed and plant protection products), which led to a decrease of added value in agriculture by almost 10% when compared to 2008 and, as a result, reduced farmers incomes. The amount of direct payments, which due to an increase of complementary payments rates rose by 15%, had a definitely positive impact on the income; on the other hand, rising costs of depreciation (6% higher) and a reduction of other subventions (by 13%) was very unfavourable. Results of agricultural accounting of a representative sample for a group of 750 thousand agricultural holdings, which constitute almost 90% of added value of agriculture (FADN), confirm that in 2009, there was an actual decrease of added value and agricultural income when compared with 2008. Organic farming is the most environmentally friendly method of agricultural production, enhancing soil fertility and preserving landscape diversity. In order to enhance biological activity and fertility of soil, crops are need to be appropriately rotated.

Recent years have witnessed a growing interest in organic food production methods all over the world, and especially in the EU. The world's area of organic farming exceeds 35 million ha, 20% of which is in the EU. Despite favourable conditions, Poland lags behind the EU average as regards organic farms and the area under organic farming.

Organic farms constitute on average 1,7% of all agricultural holdings and 3,9% of the farming area in the EU, while in Poland these figures are 0,8% and 2,3%, respectively.

The high turnover dynamics in foreign trade in recent years has resulted mainly from elimination of administrative and customs barriers and opening of the eastern market (in 2008), which was expressed in a considerable growth in the dynamics of sales to the countries of the Commonwealth of Independent States (CIS) in 2008.

In comparison to the first half of 2007, export in the first half of 2008 was higher by 20% and import increased by 25% (Table 2).

Table 2. Share of agri-food products in Poland's total foreign trade (%)

Share of agri-food products in:	2003	2004	2005	2006	2007	2008
- total export	8,4	8,8	10,0	9,8	9,8	9,9
- total import	5,9	6,2	6,8	6,4	6,4	7,0

After comparing the second halves of both years it turns out that in 2008 export increased by 1,8% and import by over 21%. Many of the developed economies, especially in the European Union, have been suffering from the economic crisis and clearly reduced internal demand, including also the demand for foreign products, which was the main reason for weakening of Polish agro-food products export in the second half of 2008. The diminishing competitiveness of Polish products had a smaller impact.

## CONCLUSIONS

1. Polish economy has been suffering from the outcomes of the global recession which disrupted and hampered development process, since the second half of 2008.
2. These turbulences have also affected the agro-food sector, especially in terms of international trade.
3. Nevertheless, by the end of 2008, the value of export increased and the turnover balance in terms of food trade was positive. It proves that the Polish food sector is a worthy competitor on the international arena.

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## REFERENCES

- [1] Zalega Tomasz, 2005, Leksykon Ekonomii Łodz. Copyright by Wyższa Szkoła Humanistyczno – Ekonomiczna w Łodzi, Wydanie I, ISBN 83-87814-27-X, 183 p.
- [2] [www.arimr.gov.pl](http://www.arimr.gov.pl)
- [3] [www.anr.gov.pl](http://www.anr.gov.pl)
- [4] [www.minrol.gov.pl](http://www.minrol.gov.pl)

## STUDIES REGARDING THE CERTIFICATION OF AGROTOURIST GUESTHOUSES AND FARMS IN GREAT BRITAIN

Liliana POPESCU<sup>1</sup>, Elisabeta SIMA<sup>2</sup>, Romeo Cătălin CREȚU<sup>3</sup>

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine, Bucharest  
59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232,  
Fax: + 40 21318 28 88, E-mail : [liliana\\_r\\_popescu@yahoo.com](mailto:liliana_r_popescu@yahoo.com)

<sup>2</sup>University of Agricultural Sciences and Veterinary Medicine, Bucharest  
59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232,  
Fax: + 40 21318 28 88, E-mail: [betty\\_ruse@yahoo.com](mailto:betty_ruse@yahoo.com)

<sup>3</sup>University of Agricultural Sciences and Veterinary Medicine, Bucharest  
59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232,  
Fax: + 40 21318 28 88, E-mail: [creturomeocatalin@yahoo.com](mailto:creturomeocatalin@yahoo.com)

*Corresponding author* : [liliana\\_r\\_popescu@yahoo.com](mailto:liliana_r_popescu@yahoo.com)

**Abstract:** *The aim of the paper is to analyse the main developments in terms of quality certification in tourism and rural tourism in Great Britain, which have a long tradition and may serve as an example to Romanian agrotourism in its attempt to come out of the current crisis. The agency which deals with agrotourist establishment classification and promotion in Great Britain is called "Visit Britain". Its idea is to achieve a quality and services standard as close as possible to the one in the countries with a long tradition in the rural tourism field.*

**Keywords :** *rural tourism, legislation, Great Britain, agrotourism, certification, guesthouse*

### INTRODUCTION

Rural tourism in Great Britain has a long tradition, especially in the western regions of the country from Dorset, Devon and Cornwall the south-west and to the mountains of Scotland. In this region, we find small farms with less fertile soils which benefit from agrotourism, as well as many National Parks and coastal areas famous for their picturesque aspect, but unfortunately the climatic conditions are not favourable to tourism.

The development of rural tourism and other types of tourism in Great Britain is closely related to the development of transport networks, which were represented at the beginning by railroads, and now by road and highway networks.

The development of tourism in the 1950s and 1960s was more accelerated in Great Britain coastal areas and then in the 1970s and 1980s it suffered a decline almost equal to the development in the previous years, partly caused by the tourist packages offered by the Mediterranean countries.

Due to these decreases, guesthouses had a small number of rooms and fewer leisure facilities and relaxation activities. Thus,

various associations of guesthouse owners appeared and, although they had existed since around the 1940s, they became famous only during that interval, their number increasing considerably. These associations were usually made up of 20, 30 members and focused their efforts on small tourist promotion activities, although in the mid-1980s they had started focusing more on improving their members' quality standards.

### MATERIAL AND METHODS

By analysing the Rural Tourism in Great Britain in the 1980s, we identify a number of factors that had a strong influence on this type of tourism.

1. Major changes in the European Union's and British government's Common Agricultural Policy.
2. The „deurbanisation” phenomenon, consisting in the fact that the inhabitants of large cities return to villages or small rural towns.
3. A rapid increase in the general consumption, but at the same time with this phenomenon there was also a concern about the effects of this increase on the

environment. Thus, the concept of Sustainable and Ecological Tourism appeared, which matched the rural tourism better.

4. Regional tourist agencies saw the trends to favour Agrotourism on the part of the British Government, due to its economic potential, and to create new jobs.
5. A thorough revision of the education system which trains specialists in tourism in order to develop new training courses, to train people specialised in rural tourism.

Tourism market research in the 1980s indicated that 21% (52 million) of the holidays longer than 4 days (3 nights), 12 million two-day stays and 57 million business trips are located in the rural area. The tourists that arrived in rural areas spent over £300m (£200m brought by foreign tourists), and the number of tourists increased to 850 million, and they spent over 1900 million days in the rural tourist environment.

The main reasons which lead to these figures were: the aspect of the rural space, the landscape, the warm and hospitable people, peace, the quality-price ratio and an increased interest in understanding the rural space. An important contribution to these achievements was also made by the local organisations promoting agrotourism.

Rural tourism begins to attract more and more visitors with larger financial resources and revenues are expected to increase in the following intervals. Rural tourism development is also influenced by the fact that a higher resistance to the recession factors was identified as compared to other domains. For a continuous development of this sector it is necessary to make investments in the transport infrastructure, to have better cooperation between the governmental and non-governmental agencies in the field and the European Commission, and due to the recent global concerns about preserving the environment and the risks to human health that have emerged lately it seems that agrotourism will be preferred more and more. Unfortunately, yet, the Rural Tourism industry is still quite fragmented and lacks an efficient coordination and, although one of the strengths of agrotourism is the anti-

urbanisation attitude, some tourists who choose agrotourist services still expect a high level of services and utilities available in the guesthouse.

Another aspect of rural tourism is represented by the entry on this market of new players who, unfortunately, due to their desire to provide a very high comfort and services level forget about the rustic, traditional and ecological aspect of agrotourism and fails in maintaining a profitable business.

## RESULTS AND DISCUSSIONS

**Ways to classify Guesthouses and Agrotourist Farms.** The agency which deals with agrotourist establishment classification and promotion is called "Visit Britain" and it was created on 1 April 2003, in order to promote Great Britain in the world and among its own citizens.

**Quality Improvement Standards.** Quality is an essential element in the process of achieving a competitive tourist industry in Great Britain. The "Visit Britain" idea is to achieve a quality and services standard as close as possible to the one in the countries with a long tradition in the rural tourism field. This objective can be achieved by providing tourist services which exceed or at least equal the tourists' requirements. Thus, the establishment of standards is crucial for the development of British agrotourism, the agency collaborating closely with the tourist industry representatives and with the local authorities in the areas with tourist potential, encouraging them to join the "National Quality Assurance Standards" Programme.

**Behaviour code and NQASP participation conditions.** The guesthouse owner or manager must implement and monitor the observance of the following requirements:

- Maintain the level of services provided to the customers at standards complying with the classification level of the agrotourist establishment and with cleanliness;
- Accurately describe the agrotourist establishment and the services it provides in any type of promotional materials;
- Correctly and thoroughly inform the customers with reference to the prices

- charged by the establishment and the services which are included in these rates;
- Inform the customers about the booking cancellation policies at the moment they are made;
  - Observe the prices offered to the customers when booking the accommodation and not to change these prices;
  - Inform the tourists when they check in about the possible changes in accommodation or services provided;
  - Give details about the invoice and a receipt to any tourist, upon request;
  - Promptly and politely solve any of the tourists' requests;
  - Establish a methodology for solving potential complaints from the tourists as fast as possible, informing them as to the results;
  - Pay increased attention to customers with special needs;
  - Receive guests politely and warmly regardless of race, gender or sexual orientation;
  - Observe the laws regarding the fire fighting norms and take out insurance policies that cover potential damages caused to the tourists' goods or even or harm to the tourists themselves during their stay in the agrotourist establishment;
  - Allow the "Visit Britain" (VB) agency representatives reasonable access within the guesthouse, upon request, in order to check their compliance with the Behaviour Code.

**Quality Assessment.** There are five quality classification levels ranging from one star to five stars. In order to obtain a high number of stars, it is necessary to increase quality in five key domains, namely: Cleanliness, Hospitality, Breakfast, Rooms, Restrooms.

Moreover, in order to obtain the maximum number of stars the agrotourist establishment is also expected to provide other services and facilities in addition to the highest standards provided in the five categories mentioned above.

#### **Minimum certification norms**

**Minimum requirements regarding the guest room sizes:** Single room: 5.6 square metres; Double room: 8.4 square metres;

Suite: 10.2 square metres. In measuring the rooms, we take into account the distance between the walls of the room without considering the area taken by the furniture. In order to receive a classification higher than a star, these sizes must be larger. The ceiling height must be at least 1.85 metres. Family rooms must be substantially larger.

**Minimum bed sizes:** Single beds: 190 x 90 cm; Double beds: 190 x 137 cm; Beds of: 183 x 75 cm are recommended only for children; Beds of: 190 x 122 cm are recommended to be used only as single beds. During the assessment, each aspect which is taken into account will receive the grade equalling one star. Thus, a general score is established for the quality in accordance with a series of requirements. The establishment will receive a star classification if it achieves certain standards in a few key domains, namely: cleanliness, hospitality, guestrooms (bedrooms), bathrooms and breakfast, but also the other minimum requirements relevant in establishing a quality standard must be achieved. For example, in order to obtain a 4\*\*\*\* rating, the establishment must meet most of the essential conditions presented above and the overall percentage of meeting the essential conditions presented above and the overall percentage of meeting the conditions must range from 70% to 84%.

**Required percentages in order to obtain quality stars:** 1 Star – 30-40%; 2 Stars- 47-50%; 3 Stars - 55-69%; 4 Stars - 70-84%; 5 Stars - 85-100%

**Differentiation according to stars.** An agrotourist establishment will have to achieve three elements in order to be granted a certain classification:

- All the minimum requirements
- The overall percentage obtained must correspond to the percentage allocated to one of the five quality standards (stars)
- The quality standards required in the five key domains presented above must be achieved
- The score of at least three key assessment elements must be equal to or exceed the overall score obtained by the agrotourist establishment

Certification will be granted as follows:

- The certification level may not exceed the level of the lowest score obtained for one of the classification criteria
- The establishments must obtain at least the minimum score for 1\* to obtain a certification.

**Assessment percentages for the key criteria:** **Cleanliness:** 1 Star- 40-49%; 2 Stars- 50-59%; 3 Stars - 60-74%; 4 Stars - 75-89%; 5 Stars - 90-100%; **Hospitality:** 1 Star - 30-49%; 2 Stars - 50-64%; 3 Stars - 65-74%; 4 Stars - 75-84%; 5 Stars - 85-100%; **Breakfast:** 1 Star - 30-39%; 2 Stars - 40-59%; 3 Stars - 60-69%; 4 Stars - 70-79%; 5 Stars - 80-100%; **Bedrooms and bathrooms:** 1 Star - 25-34%; 2 Stars - 35-49%; 3 Stars - 50-62%; 4 Stars - 63-79%; 5 Stars - 80-100%

The following aspects are taken into account in making an assessment for the star classification: Cleanliness in: bathrooms, bedrooms, dining halls, public spaces.

Hospitality: in bookings, on arrivals, during meals, while providing various types of services, on departure.

Service and efficiency: in bookings, on arrival, during meals, on departure

The establishment's exterior aspect: the buildings' aspect and maintenance, façade, garden, yard, parking lots, leisure facilities  
Bedrooms: decorations, furniture and fittings, floors, beds and bedding, lighting, heating and ventilation, room space and comfort.

Bathrooms: decorations, fittings, sanitary objects, floor, lighting, heating, ventilation, towels and toiletries, space, comfort and ease in using the utilities.

Dinner and breakfast foodstuffs quality.

## Quality norms

### 1. Establishment cleanliness

**Table 1: Establishment cleanliness**

1 Star	All areas must be clean and dustless; All the rooms must be vacuum cleaned daily; The public areas must be tidy.
2 Stars	Very good cleanliness in all the rooms and public areas of the establishment, with minor slips.
3 Stars	Increased attention to details, an untidiness level as low as possible and elimination of dust layers in public places more often; Furniture with soft finishing elements and soft carpets, both well-maintained; All the areas are properly tidy; All the establishment areas smell freshly.
4 Stars	Clean areas dusted often. Furniture and carpets with soft texture and cleaned thoroughly and frequently; Much more attention to details in all the establishment areas; Pillows and bedding kept under hygiene conditions in each room.
5 Stars	Perfectly maintained areas; Immaculate furniture and carpets; Freshly cleaned bedding.

Source: Authors' own research

## 2. Hospitality

**Table 2: Hospitality**

1 Star	Interaction and contact with the guests are limited.
2 Stars	All the guests are served promptly in a polite manner
3 Stars	The tourists are welcomed with a positive attitude and always with a warm smile by the owner or employees; A good first and last impression.
4 Stars	More complete and customised services for each and very tourist; The staff will engage in conversation with the tourists exhibiting a positive attitude; The guests must be made to feel at home, being welcomed very warmly.
5 Stars	The guests will be personally welcomed by the owner or manager; Good knowledge and anticipation of the customers' needs; An additional services offer such as: fresh milk, telephones at the tourists' disposal, recommendations on tourist sights and restaurants in the area;

Source: Authors' own research

## 3. Services and efficiency

**Table 3: Services and efficiency**

1 Star	The customers' basic personal contacts are registered; Access to the establishment on arrival may be restricted; Random registration of the guests; The guests are directed to their rooms;
2 Stars	Competent reception employees who deal with bookings, requesting more detailed information such as: name, surname, address, phone number, stay length, number of double/simple rooms required; The guests will be informed of the potential restrictions within the establishment at the moment they make the bookings; Well-organised checking-in procedures;
3 Stars	A specialised department at the tourists' disposal which deals with bookings, complaints or other superior information; Availability to assist the guests on arrival;
4 Stars	Well-organised guest relations department; The tourists will be seen to their rooms and information will be provided to them about the tourists sights in the region; Assistance in carrying luggage;
5 Stars	The guesthouse phone must not ring more than five times before the call is taken; Bookings are made professionally and politely, reassuring the tourists that the data were accurately recorded; Confirmation letters with details about the access roads to the guesthouse mailed, faxed or e-mailed;

Source: Authors' own research

## 4. Dinner and general services

**Table 4: Dinner and general services**

1 Star	Adequate services and hospitality level; Tables placed and laid accordingly for serving meals
2 Stars	Competent services accompanied by a positive attitude; Reasonable knowledge of the assortment of drinks and foods available.
3 Stars	Prompt responses to the guests' requirements for supplementary services; In larger establishments, all the customers' requirements are directed to the reception and bar staff to be solved promptly; In establishments where dinner is not served, the guests will be directed to other establishments in the area where they can have dinner; A menu will also be available in establishments where dinner is served; Good knowledge of the assortments of drinks and food available; A quite efficient service;
4 Stars	Availability to provide supplementary services; Spontaneous offer to help in finding an establishment that serves meals; Very good knowledge of the assortments of drinks and food available; Full services, making sure that the tourists have bread and water on the table, rapid cleaning of tables and sporadic checking of customer satisfaction even during the meal.
5 Stars	In establishments where dinner is not provided, the tourists will be given detailed information about the restaurants in the area and even their menus; Providing additional services in advance, such as lighting the fire in the rooms before the guests arrive and a high level of anticipating tourist needs; A thorough description of the assortments of drinks and food available in the guesthouse;

Source: Authors' own research



## 5. Procedures upon departure

**Table 5: Procedures upon departure**

1 Star	Adequate services on departure with a limited contact between the host and guests; The invoice is provided on request.
2 Stars	The tourists' departure must not be delayed by the guesthouse staff. The owners or the staff are available to provide more details about the invoice;
3 Stars	Efficient procedures in assisting the guests on departure; Preparing the invoice in time;
4 Stars	Efficient assistance on departure; The owners or the staff must be well-trained regarding all the accepted payment methods;
5 Stars	The staff or the owners must be available on departure for any information on payment of the invoice; The invoice must be correct, detailed and very well explained; The guests are asked whether they felt good during their stay; Assistance in carrying luggage and guidance in finding the most efficient route to the destination;

Source: Authors' own research

## 6. Buildings' exterior

**Table 6: Buildings' exterior**

1 Star	The exterior must be in good conditions; The property must be maintained adequately;
2 Stars	Good maintenance of the building, including the windows; Limited wear and tear signs in areas with limited guest access; A neat building aspect
3 Stars	Well maintained buildings and property
4 Stars	Very good maintenance of the stone walls and painted walls, although a certain level of decay due to climate conditions is accepted; Improvements to the property yard with large building windows;
5 Stars	Excellent building and yard maintenance standards; All the buildings must be painted accordingly; The existence of improvements and floral arrangements; Additional architecture and decorative elements; Well-lit yard with signs;

Source: Authors' own research

## 7. Yards, gardens and façades

**Table 7: Yards, gardens and façades**

1 Star	Give a good first impression, dustbins and toolsheds must be located in distant areas and they must be well-kept; Safe walkways; Well maintained alleys;
2 Stars	Dustbins and toolsheds located in remote areas; More obvious efforts to maintain and clean the yard and gardens; Efficient lighting and signposting where necessary; Easy access to the yard and gardens;
3 Stars	Well maintained and clean yards with well-built alleys and walkways; Adequate overall aspect; Efficient lighting and signposting with a long driveway for cars; Easy access inside the property;
4 Stars	Dustbin area must be secluded, outside the tourist area; High garden maintenance standards, with flower beds and clean alleys; Ornamental bushes and trees must be trimmed and maintained properly.
5 Stars	The yard and garden must be very well maintained, with flower beds, trimmed bushes, trimmed trees, mowed and neat lawn, large alleys painted in bright colours; Good organisation of the yard and garden, adding garden furniture, gazebos, spring wells and other such facilities available to the tourists;

Source: Authors' own research

## 8. Parking lots

**Table 8: Parking lots**

1 Star	Quite easy and safe access to the parking lots;
2 Stars	Small steps in managing the parking lots;
3 Stars	Easy and safe access to parking lots, which are marked; Adequate lighting;
4 Stars	Clear marking of parking lots;
5 Stars	Ample and clearly marked spaces; Providing a guest car security level; Alleys and staircases leading to the parking lots must be well-lit;

Source: Authors' own research

## 9. Bedrooms

**Table 9: Bedrooms**

1 Star	Decorations must be functional; A limited number of paintings and other decorations; A limited number of furniture items; Lighting and heating facilities must be adequate and safe to use; All the windows must have curtains or blinds that cover the whole window surface; The floors provide an adequate comfort, some wear and tear signs may be obvious and a professional finish is not compulsory; Illuminators must have the forms and sizes necessary in lighting the entire room; Heating facilities must provide optimum temperatures during the stay, portable ones are also accepted; A very limited range of quality accessories; Doors and drawers must all open without having to move other furniture items; The rooms are large enough to include all the necessary furniture items, but without paying attention to their setting; Reasonably sound-proof, without noises coming from sanitary equipment or hallways;
2 Stars	Decorations may be old but not damaged, scratched or torn; A wider range of furniture items, which may also be older but still in good condition; Low comfort level provided to the guests; Good quality curtains and blinds used more easily; Good quality floors, but carpets are mostly made of synthetic materials; Good lighting made up of a main lighting element and a secondary one with a minimum cumulated value ranging from 160 to 220 watts; Heating equipment may be portable but may benefit from thermostats; A limited range of quality accessories; The rooms must be large, with enough space between furniture items, so that they are not crammed; Good furniture setting; Bed access is only on one side;
3 Stars	Interior decorations must be selected carefully; Good quality wallpaper and paintings; Good quality, well-preserved furniture; Good furniture setting; Furniture items number and size must be in accordance with the space available in the room; Well-placed lighting elements, providing good light; Good quality blinds; Good quality wood floors, well fitted and in good condition; Plenty of natural light and heating equipment providing a constant temperature in the entire room, controlled by thermostats; A good range of quality accessories; Enough space for the tourist to move freely and with a good level of comfort, optimum furniture setting, TV-set, access to bed possible on both sides, comfortable chairs and a large number of sockets.
4 Stars	A very good standard for decorations, very good quality drawings and paintings are used and an attempt to hide the cables and pipes in the room; High quality furniture, not necessarily new, but providing a substantial level of comfort; Blinds covering all the window surface; High quality floors, not necessarily new and possibly exhibiting wear and tear signs, or lower quality but very well maintained, professionally fitted; Comfortable mattresses, very high quality bedding matching the rest of the room, supplementary bedding hygienically packed, with high quality pillows, and anti-allergic finish; Very good lighting level with easy access and control. Various lighting elements may be used to match the rest of the decorations and furniture items in the room; Eating equipment is fitted properly and controlled by thermostat. A wide range of good quality accessories is provided; A well-designed furniture setting is used to provide ample space in the room, even if it is smaller, very good access to both bedsides, a chair is provided to each guest, minimum noise level;
5 Stars	Excellent interior setting, with great attention to details, combining the colour and textures in the room very well. Very good quality wall finish, with special attention to furniture items considered to be luxury ones; Furniture items are very high quality, with copies of luxury furniture made of massive wood, a wider range of furniture items necessary in providing a high level of comfort, including at least two very comfortable chairs. Very good quality thick drapes, large enough to completely isolate the windows; Professionally fitted floors, covered with high quality carpets, polished and laminated. Superior quality beds, with orthopaedic mattresses, perfectly cleaned and laid bedding, supplementary bedding sets and pillows easily available to

	the tourists and kept under maximum hygiene conditions; A wide variety of lighting elements is also provided, all matching the rest of the decorations and finishes in the room, the possibility to control the intensity of the light wither from the bed or from near the door. Heating equipments are controlled by thermostat, and if temperatures increase a lot, cooling equipment is provided to the tourists. A wide range of very good quality accessories. No noise is allowed;
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Source: Authors' own research

## 10. Bathrooms, toilets and sanitary objects

**Table 10: Bathrooms, toilets and sanitary objects**

1 Star	Functional decorations, tiled walls. Sanitary objects of acceptable quality and properly fitted. Thick drapes covering the windows. The floors are adequate, some wear and tear signs may be visible, they are not professionally fitted. Lighting elements adequate to the space, heating equipment in accordance with the space, it is recommended that they are fixed for safety. Efficient ventilation. Satisfactory quality towels with a minimum diversity and small sizes, only the soap is provided by the establishment, possibly unwrapped. The provided space is enough and satisfactory, water pressure is adequate.
2 Stars	Old decorations without obvious scratches and deteriorations. Metallic items are of good quality, but may be old and used, sanitary objects may be uncoupled and some may be plastic. The floors are of good quality, and the part covered by linoleum or tiles should be in good condition. Lighting is good, probably provided by a single lighting element. Towels may be thicker and matching. The soap is of average quality but it may be wrapped, other accessories, yet of a lower quality, may be found. The comfort level is good, the space is limited but enough for the comfortable use of the sanitary equipment.
3 Stars	Well finished, good quality materials used in finishes, good quality and matching sanitary objects, good quality blinds covering the entire window area, enough space for shelves for the guests' stuff. The floors are well fitted, good quality and comfortable, well-preserved wood floors are also found. Lighting elements provide good light especially near the mirror, enough natural light. The heating level is provided within comfortable limits. A wider range of better quality towels, they are changed once in 3 days except for the areas under certain ecological constraints. Good quality toilet paper, wrapped soap and shampoo are also provided together with enough space to allow free access to sanitary equipment.
4 Stars	A very good decoration standard and efforts are made to hide the pipes and cable. Shower cabins, good quality accessories, high water pressure and faucets which ensure a high control of the water flow and temperature. High quality floors, not necessarily new, professionally fitted. Lighting is very good especially near or in front of the mirror and several types of lighting elements may be used. Heating equipments are properly fitted, providing a uniform temperature controlled by thermostat. Very good quality soft and fluffy towels, better quality toiletries of a wider range, possibly all of the same brand. Enough space for shelves and an efficient setting of the sanitary furniture to provide an optimum space.
5 Stars	Excellent finish aspect with an increased attention to details, professionally made and perfectly maintained, paintings or drawings may also be found where they are considered necessary. All the sanitary accessories are of very good quality, plenty of hot water regardless of the time, high water pressure. Heating is provided through an automatic system controlled by a thermostat. The tourists have a wide range of towels, bathrobes, slippers and all the necessary toiletries of the best quality. He room provides an ample space, enough for any activity to be performed under total comfort conditions.

Source: Authors' own research

## 11. Food quality

**Table 11: Food quality**

1 Star	Possibly a pre-set menu but also other dishes may be available on request, plate decoration and side dishes are limited.
2 Stars	The food is served at temperatures specific to each type of dish, the list of dishes is limited, meals are prepared paying increased attention to details.
3 Stars	The food is well presented, freshly cooked, using good quality ingredients, some fresh ones, increased attention is paid to dish quality rather than their diversity.
4 Stars	Quite many fresh ingredients are used in cooking, and dishes are cooked with great attention to quality and details.
5 Stars	Dishes are excellently prepared and cooked using fresh ingredients, seasonal ones and preferably local ones. Emphasis is placed on the high quality of the products provided to the customers, a high level of details, varied side dishes.

Source: Authors' own research

## CONCLUSIONS

1. Rural tourism and agrotourism have made significant progress in Great Britain and their development may serve as an example to many countries, including Romania.
2. We notice a marked inclination towards tradition and conservatism among the British entrepreneurs in this domain. Agrotourist guesthouses in Great Britain are mostly owned by families, the administration of these businesses often involving only the members of these families. Improvements in the legislation may help to turn rural tourism and agrotourism activities into profitable businesses for all the stakeholders.

## REFERENCES

- [1] Crețu Romeo Cătălin, 2005, Legislație în alimentație publică și agroturism, Editura Ceres, Bucuresti, Capitolul 3, p. 90-93
- [2] Kotler,P./Bowen,J./Makens,J, 2002, Marketing for Hospitality and Tourism, (3rd ed.) Prentice Hall, p. 123-125
- [3] Stabler, M, 2006, Tourism and Sustainability: Principles to Practice, Cabi Publishing, Wallingford, p. 234-236
- [4] x x x –Ordinul ministrului pentru IMM, comerț, turism și profesii liberale nr. 636/2008 pentru aprobarea Normelor metodologice privind clasificarea structurilor de primire turistice, în "Monitorul Oficial al României", partea I, nr. 379 bis, 2008.

## THE MULTI-FACTORIAL REGRESSION MODELS FOR STUDYING THE ECONOMIC EFFICIENCY OF LAND CONSOLIDATION IN THE REPUBLIC OF MOLDOVA

Anatol RACUL, Dragoş CIMPOIEŞ

The State Agrarian University of Moldova, 44 Mirceşti, 2049, Chişinău, Republica Moldova,

E-mail: [racul@rambler.ru](mailto:racul@rambler.ru), [dcimpoies@uasm.md](mailto:dcimpoies@uasm.md)

*Corresponding author:* [racul@rambler.ru](mailto:racul@rambler.ru)

### Abstract

*The purpose of this paper is to study the economic efficiency of the autumn wheat with the help of the multi-factorial regression models. Assessing the elasticity coefficient of production factors in the agrarian sector of the Republic of Moldova gives the possibility to define the criteria for optimizing the land consolidation. By means of these assessment methods we can appreciate the existence, direction and the degree of interrelatedness between the economic processes. We can also measure the degree of variation of endogenous characteristics under the influence of the exogenous characteristics in growing autumn wheat in the district of Făleşti, the Republic of Moldova.*

*Keywords :* land consolidation, econometric models, autumn wheat

### INTRODUCTION

Since 1991 Moldova has carried out a wide range of radical reforms affecting its social and economic system. The reforms have been aimed at the creation of political, legal and economic foundations for a market economy based predominantly on the private sector. Within this general framework, agrarian reform proceeded in the following main directions:

- mass privatization of agricultural land, culminating in physical distribution of land plots and issue of land titles to individual owners;
- transformation of traditional collective and state farms into new forms of market-oriented organizations.

Over 1 million residents became landowners as a result of this process, which ended between 1998 and 2000. Many of them used their privately owned land to establish independent family farms, while others entrusted their land to managers of newly created corporate farms (partnerships, limited liability companies, agricultural cooperatives, joint stock companies, etc.) [1].

As of today, 50% of agricultural land in Moldova is used by individual producers and

the rest is managed by corporate farms. This is in stark contrast to the pre-reform situation, when individuals cultivated 2% of agricultural land and 98% was controlled by collective and state farms. Ensuring the long-term viability and sustainability of the new farming structure in Moldova is a national priority.

Meanwhile, the progress in land privatization does not led to the individualization of agriculture. Half of agricultural land in Moldova is farmed by the corporate sector. Although this is a positive result, comparing with other transition countries like Russia and Ukraine, it is far from being satisfactory, while compared with market economies, where the share of corporate farms in the total area of agricultural land is much smaller [4].

The need for studying the economic efficiency of producing autumn wheat and also the reserves for increasing this efficiency requires the identification of the causal links between the factors which influence the indicators for the results in order to fundament decisions or make forecasts with respect to these factors in the future. In this way, the relations between the result indexes and the factors which influence the efficiency of the autumn wheat production can be brought together in the analysis of regression and

correlation. Here we study the dependence between the result variable (characteristic)  $y$  and one or more independent variables (characteristics)  $x$ . The result characteristic  $y$  is also called the endogenous characteristic, dependent or effect, and the independent characteristic  $x$  – factorial, exogenous or causal [2].

Although a lot of studies have been conducted in both developed and developing countries, including countries in transition regarding the place of individual farms in agriculture, the main questions addressed by local policy makers and researches still concern whether there is a clear superiority of one organisational form, namely family farms, over corporate structures and the nature of the relationship between size and farm efficiency, being strong advocates of the economy of scale. Such an approach may cause a serious impact on the country's agricultural policy and different strategic plans regarding agricultural and rural development.

Agricultural reforms led to the existence of a reduced number of large corporate farms - at one pole, and a large number of small and very small peasant (family) farms and rural households – at another one. Almost do not exist the so-called “medium-sized” family farms, the main organization form in market economies' agriculture [4]. At the same time, the relationship between the organization form and farm size is not always the same. Usually, family farms are small farms, but some of them fall in the category of large farms. A similar picture is observed with corporate farms, which are typically large, but not all of them.

## MATERIAL AND METHODS

In the case of regression analysis we describe the way that a dependent variable evolves depending on the modification of one or more causal variables, therefore  $y = f(x_i)$ . The analysis of this correlation aims at establishing the degree in which the causal variable influences the modification of the effect variable [3].

There are several criteria for establishing the independences: the relation type (functional or

stochastic); the number of characteristics (simple or multiple); the direction of the relation (direct or inverse); the function's form (linear or non-linear) and according to the way of manifestation in time (synchronous or non- synchronous).

When determining the production functions in agriculture, in the basis of the qualitative economic analyses, we specify:

- the essential phenomena taken into account (two of them), out of which one is “cause” and the other one is “effect”
- the hypothesis describing the independence between the two phenomena is shown by one single relation;
- the form of the relation is linear;
- in the case of linear relation, the model obtains the formula

$$y_x = a_0 + a_1x,$$

where

$y_x$  – dependent variable, effect or endogenous;

$x$  – independent variable, causal or exogenous;

$a_0$  – free coefficient;

$a_1$  – regression coefficient, which shows the modification of  $y$  after the unitary modification of  $x$ .

In studying the efficiency of autumn wheat production, this equation is used only when the determined result indexes depend greatly on one single factor. However, during actual production the result indexes are influenced by a series of factors, and consequently in practice we use the multi-factorial model more often, since it offers us the possibility to make a quality evaluation of the shape and the intensity of the relation between the result ( $y$ ) and the factors  $x_1, x_2, x_3 \dots x_n$  which influence it. In this case, the equation of the relation becomes:

$$y_{x_1x_2\dots x_n} = a_0 + a_1x_1 + a_2x_2 \dots + a_nx_n$$

where

$a_0$  – free coefficient;

$a_1, a_2 \dots, a_n$  – regression coefficients, which show the average change with one unit of the

endogenous characteristic  $x_i$ , on the condition that the influence of other factors in the regression's model has been taken into account and set at a medium level.

$x_1, x_2, \dots, x_n$  – independent variables, which influence the result.

The regression coefficients in the complex equation are not comparable because of the different measurement units. In order to identify the priority of the factors we determine the standardized regression coefficients: elasticity coefficients and  $\beta$ -coefficients.

Elasticity coefficients are determined according to the following formulas:

$$\mathcal{E}_1 = a_1 \frac{x_1}{y}, \quad \mathcal{E}_2 = a_2 \frac{x_2}{y} \text{ etc.}$$

They show with how many percents the resulting characteristic will be modified, if the factor characteristic is modified with 1 %.

$\beta$  -coefficients are determined as follows:

$$\beta_1 = a_1 \frac{\sigma x_1}{\sigma y}, \quad \beta_2 = a_2 \frac{\sigma x_2}{\sigma y} \text{ etc.,}$$

where

$\sigma x_1, \sigma x_2, \dots, \sigma x_n$  – average square deviation of the factors  $x_1, x_2, \dots, x_n$ .

$\sigma y$  – square deviation of the result  $y$ .

Average square deviations are determined according to the following formulas:

$$\sigma x_i = \sqrt{\frac{\sum x_i^2}{n} - (\bar{x}_i)^2},$$

$$\sigma y = \sqrt{\frac{\sum y_i^2}{n} - (\bar{y})^2}$$

where  $i = 1 \dots n$ .

The value of the  $\beta$ -coefficient shows with how many average square deviation  $y$  will be modified if  $x_i$  is modified with only one average square deviation.

The correlation coefficient of multiple relations ( $R$ ) shows the qualitative relation between the endogenous and the exogenous characteristics. The more this coefficient's value comes closer to 1, the more complete

(high) is the correlative relation between the characteristics.

The determination coefficient  $D = R^2$  shows the resulting index variation part ( $y$ ) under the influence of the factorial indexes studied ( $x_1, x_2, \dots, x_n$ ).

The partial determination coefficients are calculated according to the formula:

$$d_i^2 = r_{yx_i} \cdot \beta_i$$

which determines the individual signification of each factor included in the model [5].

In the sum of the partial determination coefficients is included the multiple determination coefficient:

$$\sum_{i=1}^n d_i^2 = R^2$$

## RESULTS AND DISCUSSIONS

The analysis of the multiple regression and correlation gives us the possibility to point out the factors, whose modification brings about enormous possibilities of altering the result characteristic. In multi-factorial models, in order to determine the priority of certain factors, we can arrange them according to the coefficients determined above ( $\mathcal{E}_i; \beta_i, d_i^2$ ), and afterwards we will determine the average level of influence of those factors over the result.

In elaborating the models which reflect the phenomena of economic efficiency in producing autumn wheat and in selecting the factors of these models we have taken into consideration the following restrictions:

- characteristics which present functional interrelations haven't been included in the models;
- in the equation of the relation were included factors which influence the result directly;
- for each characteristic included in the model there have been performed no less than 10 observations;
- in the case of the factorial (exogenous) characteristics which are closely interrelated (that means there are collinear relations) only one factor has been included in the equation of the relation

(only the factor which is more closely related to the result).

When elaborating the relatively multi-factorial models, in order to establish the factors' influence on modifying the indicators of the economic efficiency of the autumn wheat production, the following effect (endogenous, resulting) characteristics have been examined:

$y_1$  – unit cost of 1 q autumn wheat, MDL

$y_2$  – autumn wheat profitability level, %.

In the case of the first mathematic model, there have been included measurable factors which have a significant influence on the unit cost of 1 q of autumn wheat:

$x_1$  – direct labor consumption per ha, persons-hours

$x_2$  – quantity of fertilizer used per ha, kg, etc.

$x_3$  – level of mechanization of the laboring processes, %

$x_4$  – specialization level, % (according to the structure of the income obtained after selling the agricultural products)

$x_5$  – materials consumption per ha of autumn wheat, MDL

$x_6$  – no. of combines used per 100 wheat ha, units

$x_7$  – autumn wheat productivity, q/ha

After processing the information with the help of least – squares regression techniques we have obtained the following equation:

$$y_{x_1, x_2, \dots, x_7} = -13,05 - 0,398x_1 - 0,175x_2 + 1,294x_3 + 0,607x_4 - 0,003x_5 - 10,409x_6 - 0,227x_7 \cdot$$

The regression coefficients of this equation show that the unit price of 1 q of autumn wheat decreases:

- when direct labor consumption is modified with 1-person-hour,  $y$  decreases with 0.398 MDL;
- when the quantity of fertilizer used per ha is modified with 1 kg, the 1 q cost decreases with 0.175 MDL;
- when the level of mechanization of the laboring processes is modified with 1 %,  $y$  increases with 1.29 MDL;
- when the specialization level is modified with 1 %,  $y$  increases with 0.607 MDL;

- when the materials consumption per ha of autumn wheat is modified, the cost decreases with 0.003 MDL;
- when the factor “no. of combines used per 100 wheat ha, units” is modified, the cost decreases with 10.41 MDL;
- when the autumn wheat productivity is modified, the cost decreases with 0.227 MDL. (In all these cases, the condition at work is that the other factors remain at a medium level.)

The multiple correlation coefficient  $R = 0.648$  demonstrates the fact that between the unit cost of 1 q of autumn wheat and the exogenous factors included in the model there is a remarkable connection. The multiple determination coefficient  $D = R^2 = 0.4204$  shows that the variation of the unit cost of 1 q of wheat is influenced buy the factors included in the model at a rate of 42.04%.

In order to determine the influence of the various factors in obtaining the result characteristic we determine the elasticity coefficients, the  $\beta$ -coefficients and the partial determination coefficients [7].

a) Elasticity coefficients:

- for  $x_1$  (direct consumption of labor on 1 ha, persons-hours)

$$\Theta_1 = -0,398 \cdot \frac{42,305}{82,317} = -0,205;$$

- for  $x_2$  (quantity of fertilizer used per ha, kg, etc.)

$$\Theta_2 = -0,1748 \cdot \frac{50,529}{82,317} = -0,107;$$

- for  $x_3$  (level of mechanization of the laboring processes, %)

$$\Theta_3 = -1,2935 \cdot \frac{96,049}{82,317} = -1,509;$$

- for  $x_4$  (specialization level, %)

$$\Theta_4 = -0,6073 \cdot \frac{24,024}{82,317} = -0,177;$$

-for  $x_5$  (materials consumption per ha of autumn wheat, MDL)

$$\Theta_5 = -0,0030 \cdot \frac{2303,805}{82,317} = -0,084;$$

- for  $x_6$  (no. of combines used per 100 wheat ha, units)

$$\vartheta_6 = -10,4089 \cdot \frac{0,46}{82,317} = -0,053;$$

- for  $x_7$  (autumn wheat productivity, q/ha)

$$\vartheta_7 = -0,2266 \cdot \frac{29,0}{82,317} = -0,080.$$

The elasticity coefficients prove that:

- when direct labor consumptions are modified with 1%, the average unit cost will alter with 0.205 %;
- when the quantity of fertilizer used per ha is modified with 1%, the average unit cost will alter with 0.107 %;
- when the level of mechanization of the laboring processes is modified with 1 %, the unit cost – with 1.509 %;
- when the specialization level is modified with 1 %, the average unit cost – with 0.177 %;
- when the materials consumption per ha of autumn wheat is modified, the average unit cost – with 0.084 %;
- when the no. of combines used per 100 wheat ha is modified with 1%, the average unit cost – with 0.053 %;
- when the autumn wheat productivity is modified with 1%, the average unit cost – with 0.083 %;

b) We determine the  $\beta$ -coefficients according to the formula:

$$\beta_i = \alpha_i \frac{\sigma_{x_i}}{\sigma_y}$$

First of all, we shall determine the average square deviations for  $y, x_1, x_2 \dots x_7$ :

$$\sigma_y = \sqrt{\frac{278651}{41} - (82,317)^2} = 4,504$$

$$\sigma_{x_1} = \sqrt{\frac{73689,27}{41} - (42,305)^2} = 2,754$$

$$\sigma_{x_2} = \sqrt{\frac{108406,79}{41} - (50,529)^2} = 9,534$$

$$\sigma_{x_3} = \sqrt{\frac{378304}{41} - (96,049)^2} = 1,232$$

$$\sigma_{x_4} = \sqrt{\frac{24769}{41} - (24,024)^2} = 5,193$$

$$\sigma_{x_5} = \sqrt{\frac{219627704}{41} - (2305,805)^2} = 200,091$$

$$\sigma_{x_6} = \sqrt{\frac{7,3296}{41} - (0,416)^2} = 0,075$$

$$\sigma_{x_7} = \sqrt{\frac{34975}{41} - (29)^2} = 3,417.$$

Therefore,

$$\beta_1 = -0,398 \cdot \frac{2,754}{4,504} = -0,243$$

$$\beta_2 = -0,1748 \cdot \frac{9,534}{4,504} = -0,370$$

$$\beta_3 = 1,2935 \cdot \frac{1,232}{4,504} = 0,354$$

$$\beta_4 = 0,6073 \cdot \frac{5,193}{4,504} = 0,700$$

$$\beta_5 = -0,003 \cdot \frac{200,091}{4,504} = -0,133$$

$$\beta_6 = -10,4089 \cdot \frac{0,075}{4,504} = -0,173$$

$$\beta_7 = -0,2266 \cdot \frac{3,471}{4,504} = -0,175$$

$\beta$ -coefficients show that:

- if the direct labor consumptions per ha are modified to the size of its average square deviation (with  $\sigma_1$ ), then the unit cost will modify with 0.243  $\sigma_y$ ;
- if the quantity of fertilizer used per ha is modified to the size of its average square deviation (with  $\sigma_2$ ), then the unit cost will modify with 0.370  $\sigma_y$ ;
- if the level of mechanization of the laboring processes is modified to the size of its average square deviation (with  $\sigma_3$ ), then the unit cost will modify with 0.354  $\sigma_y$ ;
- if the specialization level is modified to the size of its average square deviation (with  $\sigma_4$ ), then the unit cost will modify with 0.700  $\sigma_y$ ;
- when the materials consumption per ha of autumn wheat is modified to the size of its average square deviation (with  $\sigma_5$ ), then the unit cost will modify with 0.133  $\sigma_y$ ;
- if the no. of combines used per 100 wheat ha is modified to the size of its average square deviation (with  $\sigma_6$ ), then the unit cost will modify with 0.173  $\sigma_y$ ;
- if the autumn wheat productivity is modified to the size of its average square

deviation (with  $\sigma_7$ ), then the unit cost will modify with  $0.175 \sigma_y$ .

The results of the comparative analysis regarding the factor's influence will be presented by means of the table above.

As we can notice on the basis of all the coefficients we have calculated and of the determination of the average level of the factor's influence we can thus prove the priority of the  $x_3$  factor – level of mechanization of the laboring processes, %, and of  $x_4$  – specialization level. To conclude, we will claim that the highest priorities on modifying the unit cost per q of autumn wheat is due to the complete mechanization of the technological processes and to the enterprise's focus on producing this culture [6].

Table 1. Factor's influence on the unit cost

N	Factors	Coefficients value		
		$\vartheta_i$	$\beta_i$	$d_i^2$
1	$x_1$ - Direct labor consumptions per ha, persons-hours	-0,205	-0,243	0,008
2	$x_2$ - Quantity of fertilizer used per ha, kg, etc.	-0,107	-0,370	0,007
3	$x_3$ - Level of mechanization of the laboring processes, %	1,509	0,354	0,073
4	$x_4$ - Specialization level, %	0,177	0,700	0,293
5	$x_5$ - Materials consumption per ha of autumn wheat, MDL	-0,084	-0,133	0,000 3
6	$x_6$ - No. of combines used per 100 wheat ha, units	-0,053	-0,173	0,047
7	$x_7$ - Autumn wheat productivity, q/ha	-0,080	-0,175	-0,011

In the case of the mathematic model of studying the profitability of the autumn wheat ( $y_2$ ) the following factors have been included:

$x_1$  – no. of combines used per 100 wheat ha, units

$x_2$  – the production cost of 1 q, MDL

$x_3$  –autumn wheat productivity, q/ha

$x_4$  – specialization level, %

$x_5$  – merchandise production level:

$$Y_{x_1, x_2 \dots x_5} = -32.49 + 6.96 x_1 + 0.57 x_2 + 0.019 x_3 - 0.32 x_4 - 0.0225 x_5$$

The regression coefficients prove that the profitability level increases:

- with 6.96 %, when the no. of combines used per 100 wheat increases with one unit y;
- with 0.57 %, when the production cost increases with 1 MDL;
- y increases with 0.019 %, when the autumn wheat profitability increases with 1 q/ha;
- when the specialization level is modified, the result alters with 0.32 %;
- when the merchandise production level is modified with 1 %, the profitability level increases with 0.02 %.

The coefficient  $R = 0.79$  of the multiple correlation proves that there is a very close relation between the level of the autumn wheat profitability and the exogenous factors included in the model. The multiple determination coefficient  $R^2 = 0.6246$  shows that the variation of the autumn wheat profitability level is influenced by factors included in the model at 62.46 %.

Thus it is proved the priority of the  $x_1$  factor “No. of combines used per100 wheat ha” and  $x_2$  “Production price of 1 q”.

## CONCLUSIONS

In conclusion, we may claim that the method of correlation and regression can solve the following tasks:

- 1.Appreciate the existence, direction and the degree of interrelatedness between the economic processes;
- 2.Measure the degree of variation of endogenous of effect characteristics (Y) under the influence of the exogenous characteristics or (X);
- 3.Calculate the total change of the result characteristic under the influence of one or more factors of influence.



4. The study of the economic efficiency of the autumn wheat with the help of the econometric models gives the possibility to define the criteria for optimizing the land consolidation in the agrarian sector of the Republic of Moldova.

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## REFERENCES

- [1] Alvarez, A., Arias, C., 2003, Diseconomies of size with fixed managerial ability. *American Journal of Agricultural Economics*, 85 (1), pp. 134-142
- [2] Thompson, S., Herrman, R., Gohout W., 2000, Agricultural market liberalization and instability of domestic agricultural markets: The case of CAP. *American Journal of Agricultural Economics*, 82 (3), pp. 718-726.
- [3] Cimpoieş, D., Lerman, Z., 2008, Land policy and farm efficiency: the lessons of Moldova. *Studies on the Agricultural and Food Sector in Central and Eastern Europe*. Leibniz Institut für Agrarentwicklung in Mittel und Osteuropa (IAMO). Halle (Saale): IAMO, 2008, vol. 44, pp. 603.
- [4] Cimpoieş, D., 2008, Land policy and structural changes Moldovan Agriculture: trends and perspectives. The XIII International Interdisciplinary Conference Unicity, uniformity and universality in the identification of the landscape and cultural mosaic. Università degli Studi di Udine – IPSALEM. Aquileia, September 18-19th, 2008. *On-line: [http://web.uniud.it/ipsapa/Convegno2008\\_Relazioni.htm](http://web.uniud.it/ipsapa/Convegno2008_Relazioni.htm)*
- [5] Coelli, T., Prasada Rao, D., O'Donnell, C., Battese, G., 2005, *An introduction to efficiency and productivity analysis*. Second edition., Springer, Berlin.
- [6] Lerman, Z., Shagaida, N., 2005, Land reform and the development of agricultural land markets in Russia, in: BROSIG, S., HOCKMANN, H. (eds.): *How effective is the invisible hand? Agricultural and food markets in Central and Eastern Europe*, *Studies on the Agricultural and Food Sector in Central and Eastern Europe*, Vol. 31, Halle (Saale), pp. 270-302.
- [7] Csaki, C., 1999, The status of agricultural reforms in Central and Eastern Europe and the former Soviet Union, in: Tillack, P., Schulze, E. (eds.): *Land Ownership, Land Markets and their Influence on the Efficiency of Agricultural Production in Central and Eastern Europe*, *Studies on the Agricultural and Food Sector in Central and Eastern Europe*, Vol. 9, Kiel, pp. 10-30.

## STRATEGY FOR THE DANUBE REGION - CONTRIBUTION TO IMPROVING THE CONDITIONS OF LIFE AND WORK OF ALL CITIZENS OF THE LOWER DANUBE REGION

**Cristiana SÎRBU**

„The Ecological Initiative and Sustainable Development Group” Foundation , 13 September Street, The Building of the Romanian Academy, Bucharest, Sector 5, Romania, Phone number: 0740 055 221, e-mail: [cris\\_sirbu@yahoo.com](mailto:cris_sirbu@yahoo.com), [fundatiagie@yahoo.com](mailto:fundatiagie@yahoo.com)

University of Agronomic Sciences and Veterinary Medicine, 59, Mărăști Boulevard, Bucharest, Sector 1, Romania, Phone: 0740 055 221, e-mail: [cris\\_sirbu@yahoo.com](mailto:cris_sirbu@yahoo.com), [fundatiagie@yahoo.com](mailto:fundatiagie@yahoo.com)

**Corresponding author:** [cris\\_sirbu@yahoo.com](mailto:cris_sirbu@yahoo.com)

### **Abstract**

*This paper aims to raise awareness about the European Commission Strategy for the Danube Region, strategy materialized in new opportunities and new potential, in particular as regards the strengthening of EU efforts to overcome economic crisis in a sustainable manner. This paper presents the main proposals and recommendations made by the European Economic and Social Committee for the Strategy in the Danube region, so that socio-economic development, competitiveness, environmental management and increased resource efficiency can be improved, and security and transport corridors, upgraded. European Parliament was established from the very beginning as a reliable partner that will always ensure the future "development strategy of the Danube region. The strategy should make it a region that truly belongs to the 21st century, secure and confident in their forces and one of the most attractive in Europe.*

**Key words:** Danube Commission, the European strategy, the Danube Delta, sustainable development, conditions of life

### **INTRODUCTION**

Danube Delta (3446 km<sup>2</sup>), located largely in Dobrogea, Romania, and partly in Ukraine, is the largest and best preserved of European deltas.

Delta entered into the UNESCO world heritage in 1991 and is classified as a national biosphere reserve as a national park in Romania and in international taxonomy of IUCN (International Union for Conservation of Nature and Natural Resources).

Delta vegetation is represented mainly by specific vegetation that exists mostly in wetlands (reed, bulrush, sedge, mixed with dwarf willow) and covers 78% of the total. Riverside coppices occupies 6% of the delta, are forests of willow, ash, alder, poplar, which grow on river levees, that are regularly flooded, and the stitches covered by water are occupied by floating aquatic vegetation (2% of the delta). There are also forests in Letea and Caraorman Fields that consist of gray oak, ash, poplar, elm, climbing plants.

It contains more than 320 species of birds as well as 45 freshwater fish species in its numerous lakes and backwaters. This is where millions of birds from different corners of the Earth (Europe, Asia, Africa, and Mediterranean) come to roost. Major species of fish in the Danube Delta are pike and catfish.

Delta population has a way of life unchanged for centuries. Discrete human implantation has allowed amazing survival of the Delta ecosystem. Large extent of waters explains the low number of habitants.

Fishing is a constant of human activity in the region. Exploitation of reeds and rushes is another branch of human activity.

The crop is practiced some areas and others contain common land for farming.

Navigation and transport on the Danube Channel are other concerns of residents.

Danube Delta is a region of great beauty and touristic attraction and has a real scientific interest. Danube Delta Biosphere Reservation is located on the 5th place among the Earth's

wetlands and no. 2 in Europe, but regarding the ecological importance is the third in the world.

## MATERIAL AND METHODS

Danube region has changed dramatically. Recently, there have been waves of EU enlargement in 2004 and 2007. River Basin that crosses most countries in the world is now largely an area of the European Union. There are new opportunities and new potential, in particular as regards strengthening of EU efforts to overcome economic crisis in a sustainable manner. Socio-economic development, competitiveness, environmental management and increased resource efficiency can be improved, and security and transport corridors, upgraded. Danube can open the EU to immediate neighbors, the Black Sea region, the South Caucasus and Central Asia. An EU strategy for the Danube region may contribute to the EU objectives, strengthening the EU's major policy initiatives, particularly Europe 2020 Strategy.

Danube's region development strategy is a long chain of consultation and debate that would highlight the action plan of over 800 contributions received from the 14 countries: Germany, Austria, Slovenia, Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Croatia, Serbia, Bosnia, Herzegovina, Montenegro, Moldova, and Ukraine, countries both inside and outside European Community.

Thus, the countries of the Danube region expressed their commitment to creating a new macro-region that is considering a joint plan of action that is based on four pillars and focus on 11 priority areas. European Parliament was established from the very beginning as a reliable partner that will always ensure the future "development strategy of the Danube region.

## RESULTS AND DISCUSSIONS

On 16 of September 2010 was held in Brussels the Plenary Session of the European Economic and Social Committee (EESC)

where was adopted "The European Strategy for the Danube Region" (reporting Miklos Barabas - Group III - Hungary and Mihai Manoliu - Group I - Romania, President of CNPR and Secretary General ACPR).

The notification of EESC wants to seize the opportunity given to the European civil society by the European Commission to set concrete practical proposals that would constitute a contribution to the Strategy's Action Plan for the Danube Region, currently developing. The Committee expects that future strategy should be a real contribution to improving life and working conditions of all citizens in the Danube region, which it considers a mirror of Europe.

The main proposals and the recommendations made by the Committee for European Union Strategy for the Danube Region were:

1. At the political level, the strategy planned for the Danube Region:
  - must have an open, inclusive and sensitive to social, economic and environmental, to take into account the recommendations of civil society organizations and rely on their experience;
  - given the complex and interdependent problems reached, can be effective only if it consistently follows the principle of integrated approach, rather than sectorial point of views, and if highlights the need to achieve the objectives of key stakeholders;
  - must stimulate and take account of the civil security cooperation in areas such as emergency services which work together to cope with natural disasters, the mobility of workers, businesses, etc. or to prepare emergency plans to deal with environmental accidents;
  - must contribute to the fullest possible use of opportunities offered by the Treaty of Lisbon like the consistent application of the principle of participatory democracy;
  - must be an appropriate tool for:
    - ❖ to contribute effectively, as a macro regional development policies, towards deepening the European integration, particularly

in Europe 2020 Strategy (for smart growth, sustainable and inclusive);

- ❖ to get the six countries in the region that are not members closer to the European Union, supporting them in their integration efforts;
- should reflect the European Union policy at a macro level and, thus, active and creative contribution and role of organized civil society;
- must contribute to the harmonization of activities already existing in the region, operating at different levels and in different fields, for their efficiency and to avoid duplication;
- its governance structure should be clear, simple and transparent and allow bottom-up approach in terms of organized civil society;
- must be implemented as a process that involves, during the course, flexibility and regular review and, where possible, additional financial resources;
- have to follow some realistic goals and establish priorities for effective implementation;
- must have visible and tangible results for society and citizens to create better living conditions and better jobs for citizens, including youth;
- must reflect the importance of social and civil dialogue;
- must recognize the importance of connections in the Danube region;
- must take into account the experiences resulting from implementation of the EU Strategy for Baltic Sea region.

2. Practical recommendations on civil society, the planned strategy action plan for the Danube Region:

- should create a network of civil society organizations in the region (Civil Society Forum in the Danube region) to facilitate, among other things, actions and projects; network members would meet every year in another country in the region;

- should contain events (meetings, festivals, visits, exhibitions, fairs, etc..) in way to strengthen the people's sense of belonging to the Danube region, building a regional consciousness and maintaining cultural diversity, with special emphasis on youth; to achieve this objective it could help also a regional and cultural publication;
- should be held annually in different locations, a "Week of the Danube", which might be an appropriate forum for discussing topical issues relating to strategy for the Danube Region and to present results;
- to ensure continued support from citizens and organized civil society in both the EU and neighboring countries which are not EU members, is required a communication strategy for effective and permanent Danube region;
- in developing programs under the Strategy for the Danube Region should pay attention to disadvantaged and marginalized groups, particularly Romani people;
- should strengthen cooperation and systematic relations between actors in the region, as well as social and civil dialogue; in this context, economic and social councils at national level can play an important role;
- Entrepreneurial Forum set up in the Danube region (Danube Business Forum), which would include social and economic actors, could be an important tool for achieving cooperation and economic, social and territorial cohesion in the region; employers organizations in the region should access and should be encouraged to participate in funding programs aimed at organizing this forum;
- should contribute to strengthening human relations by further reducing the obstacles to free movement, even eliminating them, and by applying the

- principles of decent work and fair remuneration;
- to implement the Strategy for the Danube region, would be valued achievements and information society services;
  - should establish an international research group, which will have as its task to examine and analyze the scientific aspects of the strategy for the Danube region, its activities should be supported through a scholarship program;
  - should consider how they can correlate the different years and subjects of their programs with the European Union Strategy for the Danube region;
  - should support initiatives aimed at teaching languages used in the region;
  - European Economic and Social Committee should establish an observer or a study group to work continuously and strategy to deal with the Danube region;
  - implementation and monitoring the Strategy for the Danube region provisions and its action plan should be made by a management committee composed of representatives of civil society to submit its findings in annual reports;
  - in conjunction with the adoption of the Strategy for the Danube region, the European Commission should support some pilot projects suitable for testing and start acquiring experience;
  - Strategy funding towards the Danube region and the provisions of the plan of action should come from various sources: with European funds (primarily structural funds) may be taken into account countries' own funds in the region, private sources and international financial institutions. Taking into account their contribution, the Committee recommends establishing a separate fund;
  - European Economic and Social Committee considers that the Strategy for the Danube region - whose

adoption is scheduled for the first half of 2011, during the Hungarian presidency of the EU - can be a crucial tool for creating a dynamic, competitive and prosperous region of the Danube.

On 8<sup>th</sup> of December 2010 The European Commission has approved and published the EU Strategy for the Danube region, reflected in a Communication and Action Plan. The documents discussed and agreed at Community level and which form the core of regional cooperation on the Danube, is making concentrated efforts of riveran states, which together with the European Commission, analyzed and evaluated the real needs of the Danube region and proposed an agreed document at political and technical level.

The strategy proposes an Action Plan, which requires a strong commitment from the states and stakeholders. The Commission will produce a regular progress report. Therefore, actions and projects will be upgraded or replaced as they are completed, making this plan a flexible one. It points out the importance of localized and integrated approach. Good connections between urban and rural infrastructure and equitable access to services and comparable living conditions, promote territorial cohesion, which is now an explicit objective of the European Union.

The consultation has identified a number of proposals on different lines of action. Commission, in partnership with Member States, regions and other stakeholders has selected those that:

- demonstrate immediate and visible benefits for the habitants;
- have an impact on the macro-region (or significant portions thereof).

Projects should, therefore, promote sustainable development and to include more regions and countries;

- are coherent and mutually reinforcing, creating suitable solutions for all parties involved
- are realistic (technically feasible and credible financing).

The main problems are grouped into four pillars. Each of them contains the priority areas, specific areas of action. They are:

- interconnection in the Danube region
  - ❖ to improve mobility and multimodality
    - ✓ inland
    - ✓ road links, rail and air
  - ❖ to encouraging more sustainable energy
  - ❖ to promote culture and tourism, direct contacts between people
- environmental protection in the Danube region
  - ❖ restoration and maintenance of water quality
  - ❖ managing environmental risks
  - ❖ biodiversity conservation, landscape and air and soil quality
- increasing prosperity in the Danube region
  - ❖ knowledge-based society through research, education and information technology
  - ❖ support the competitiveness of enterprises, including the development groups
  - ❖ investment in people and skills
- consolidation of the Danube region
  - ❖ improving institutional capacity and cooperation
  - ❖ cooperation to promote security and to resolve problems posed by organized crime and serious crime.

The work I conducted as an executive president of the “Ecological Initiative and sustainable Development Group” Foundation, I tried to put the entire population as much in touch with current reality, the act of awareness act representing a first step towards sustainable development. Our efforts were noticed even by Mr. Philip Weller, Executive Secretary, International Commission for the Protection of the Danube River (ICPDR) who wanted to congratulate the “Ecological Initiative and sustainable Development Group” Foundation, considering our proposals very useful in the

context of the European Strategy for the Danube.

International Commission for the Protection of the Danube River (ICPDR) is active in preparing the proposed strategy for the Danube and its implementation through a participatory approach from the heads of delegations of the ICPDR and the Priority Area Coordinators recently nominated for the European strategy for the Danube. ICPDR people are militating for prosperity and sustainable development in the Danube basin in this region. This message from the ICPDR has encouraged us and gave us hope of cooperation to meet the challenges we face in this region.

In current times, development is a clear component of the Strategy for the Danube region.

Danube region has changed dramatically. Recently, the EU has enlarged. River Basin that crosses most countries in the world is now largely an area of the European Union, so there is a need to connect people, ideas and needs in this region.

A first start of making this strategy public was the organization of the Forum “Danube – restoration or damming? Optimal solutions”, in which Mr. Mihai Manoliu as co-reporter of the EESC opinion of civil society's position towards the future strategy, presented to the public the public version of the new EESC opinion on the strategy and action plan for Danube region.

## CONCLUSIONS

Europe 2020 Strategy is essentially the EU's commitment towards creating jobs, sustainable and inclusive growth, that this strategy will reinforce. It has five main objectives. They are: promoting employment, improving conditions for innovation, research and development, addressing climate change and energy goals, improving education, and promoting social inclusion in particular by reducing poverty and the problems posed by aging. Strategy with its vision for the Danube region in 2020, wants to achieve these objectives. It supports sustainable growth by reducing energy consumption, increase use of

renewable energy, modernizing the transport sector by optimizing and improving its environmental impact and promoting ecological tourism. It helps to remove obstacles to internal market and improve the business environment.

Consistency with EU legislation and policies are at the base of this strategy. It approaches the implementation gap and practical and organizational difficulties that lead to lack of results. It supports better implementation of EU legal obligations, in particular the single market and the environment. The purpose and the EU's strategy for biodiversity after 2010, with its projection for 2050 and 2020 target, are also consolidates a gateway to Europe and the Asian neighbors, the region is essential in supporting other EU external policies, in line with European Neighborhood Policy and regional initiatives (example: the Eastern Partnership).

By 2020, all citizens of this region should enjoy better prospects of higher education, labor employment and prosperity in areas where they live.

The strategy should make it a region that truly belongs to the 21st century, secure and confident in their forces and one of the most attractive in Europe.

## **REFERENCES**

- [1] European's Commission Communication on the Danube Strategy
- [2] Action Plan of the Strategy for the Danube region

## STUDIES CONCERNING POSSIBILITY ACCOUNT REGARDING THE RURAL TOURISM AND THE EQUESTRIAN TOURISM DEVELOPMENT IN ROMANIA

Petrică ȘTEFAN<sup>1</sup>, Matei-Agathon DAN<sup>2</sup>, Dragoș RĂDUCAN<sup>3</sup>

<sup>1</sup> University Of Agronomical Sciences and Veterinary Medicine, No. 59, Blvd. Marasti, 011464, Bucharest, Romania, (+49) 021/2242815, 0723554321, stefanmarian2004@yahoo.com.

<sup>2</sup> Employers Confederation of Industry of Romania CONPIROM, No. 48, Calea Victoriei, sect. 1, 010063, Bucharest, Romania, (+49) 021/3266089, conpirom@yahoo.com

<sup>3</sup> Magest Tourism, No 4, Blvd. Dimitrie Cantemir, Bucharest, Romania, Tel: 021-336.70.04, 0744.544.056, Fax: 021-336.70.05, www.magest.ro

**Corresponding author:** stefanmarian2004@yahoo.com.

### Abstract

*Equestrian tourism represent a combination of rural tourism, agro tourism and ecotourism, which it has been improved with success in many European countries and I hope as in future it will be improve in Romania too. From my studies, which I have done arise that in some areas from countryside there is potential for the improvement of equestrian tourism in: Bucovina, Transylvania, Calarasi and the littoral of the Black Sea. The present project proposes to promote and to develop the equestrian practice in this areas, but also in others areas less known by tourists.*

**Keywords:** *Equestrian Tourism, Rural Tourism, Agro tourism, Ecotourism*

### INTRODUCTION

In Romania was a moment, after the revolution from 1989, when the destiny of the breed horses became dramatically. The old farms of breeding horses have been liquidated and the valuable horses got into the custody of a small local baron or they took the way of Italy and they have been transformed in salami.

The critical moment was surpassed and, today, we are taking part to an increase and training refreshing activities in some budget and private centers from Romania.

I chose as theme of project "equestrian tourism" because I consider that this subject has not been explored in doctrine and in application [4].

### MATERIAL AND METHODS

Despite numerous attempts to develop methods to assess the tourism potential of a territory held by the literature, the degree of relativity of the results is often pronounced.

The main drawback derives from the difficulty of quantitative assessment of qualitative expressions, respectively attractive or unusual exercise of different objectives or views on the visitor's interest, note the bias (characteristic of the human individual, so different from one individual to another, according to age, sex, level of culture, behavior, etc..) signing on a very wide spacing of each tourist options [Cocan, 1999]. Add to this the complexity of the typology of tourist resources, which prints a relatively any action that aims intrinsic appreciation of their attractiveness. As a result, it is necessary to complement them with information on the particular application of interest.

Edward A. Bergman (1996) believes that the tourism potential of an area, region depends on the three "A's":

Attractions (Attraction) - components of natural and human potential with attractive value;

Accessibility (accessibility) - accessibility of



the area or region a tourist destination to tourist flow generating areas;

Accommodation (based on accommodation, catering, entertainment in terms of quality and number).

b. The formula developed by Rosenberg (1956), the attractiveness of an object (or event) is the result of aggregation of the importance of specific characteristics, the value associated with action and objects, namely instrumental perception of these characteristics. Graphic expression of the model proposed by this author estimates is as follows:

$$A_j = \sum_{i=1}^n (V_i) x (I_{ij})$$

where:  $A_j$  - the attractiveness of objects or actions,  $V_i$  - the importance of feature  $i$ ,  $I_{ij}$  - instrumentality alternative  $j$  relative to  $i$ ,  $N$  - number of characteristics.

c. Ion Sandru (1970), the proposed formula for estimating the potential of tourism, believes that it only covers material and technical basis of tourism: the accommodation, catering, treatment and recreational infrastructure.

$$P = I^i \times I^d \times I^a$$

$I^i$  - indicate the ranking of area attractions;

$I^d$  - the index of equipment;

$I^a$  - affordability index.

Unfortunately, the tourism fund analysis omitting elements of this formula gives a high degree of relativity, the ranking value of tourism resources is influenced by the bias, often pronounced, the person appointed to appreciate. In contrast, an index of accessibility and equipment quantification is possible.

d. Based on using a formula based on ideal tourist Ciangă model, has made an estimate of the tourism potential of the Carpathians. The complexity of this model derives from an integrated analysis and providing value indexes the entire set of geographical-conditioning analyzed tourist territory, grouped in eight categories, 24 subcategories and not more than 95 attractive value items by which to obtain 100 counterpoints.

$V_t =$

$$\sum_{0-16} 1 + \sum_{0-5} 2 + \sum_{0-18} 3 + \sum_{0-8} 4 + \sum_{0-10} 5 + \sum_{0-8} 6 + \sum_{0-24} 7 + \sum_{0-11} 8 = 100$$

where:  $V_t$  = value of tourism;  $\Sigma 1$  = morfoturismic fund;  $\Sigma 2$  = climatoturismic fund;  $\Sigma 3$  = hidrogeographic tourism fund;  $\Sigma 4$  = biogeographic tourism fund;  $\Sigma 5$  = cultural and historical tourism fund;  $\Sigma 6$  = ethnography and folklore tourism fund;  $\Sigma 7$  = material basis;  $\Sigma 8$  = potential communication.

## RESULTS AND DISCUSSIONS

J.M. Miossec (1977) managed to draw very significant "conquest" of a geographic area with tourism potential of delivery through the development and impact of tourism activities focusing on organization of space tourism. A tourist space tourism can be defined as a region (regional tourist area) since there is a significant tourist presence, adequate reception facilities, where the organization of transport and services (and sometimes the economy in general) is partly or wholly subordinate tourism (tourist activities). Tourist region is a functional space; its image is printed on all the natural and anthropogenic components, more or less homogeneous and continuous. Between known and large complex regions of interest (Black, Delta, etc.) easily fixed by geographical boundaries, and regions of interest "pioneers" with indeterminate boundaries, there are several types of regions or regional tourist areas.



Photo 1 Arabian thoroughbred

Until recently, in our country, particularly the horse was used for work. But with the accession of Romania to N.A.T.O. was drafted the law 389/2005 of the horse, and was published on January 5, 2006. Law that results in a Romanian citizen to understand that this noble animal is not just for work, but the horse may be seen as a friend of man, it can be used for recreation, tourism, equestrian tourism and thus to grow. Not necessarily for the sport that not everyone in sport, elite sport, it's not easy to make the equestrian sport, but equestrian tourism is easy to do. Equestrian tourism is an area with great development opportunities in a country that for many Westerners is an ideal place of refuge (at reasonable prices) in rural and nature. This is the explanation that, although the riding clubs first opened near the capital (Riding Club in Bucharest in 1994 and Ecvalahis in 1998), the trend in recreational riding has been away from large cities and forms of entertainment offerings to include the pleasure of riding, and thrill of adventure in the mountains or woods, and why not fashion tourism.

Romania is known for thoroughbred race horses, but is necessary to do something for their growth and become profitable. Our country has eight blood lines very important and appreciated throughout the world, namely: Conversano, Favory, Maestoso, Neapolitano, Pluto, Siglavy-Caprioli, Tulipan and Incitato. Breeds of horses for recreation will be developed in Romania, with economic growth and welfare.

In most countries with state support growth and improve the ways the organization at the appropriate selection of horses. In our country, direct state intervention to support horse breeding and improvement is the organization and maintenance of nursery and stud farm stud deposits.

The Emergency Ordinance no.139/17 October, 2002, adopted by the Government, the National Forest took over management of race horses owned by the state. There are 17 units to date horse racing, the elite firm, respectively 13 studs (Stud Balc is unpopulated) which increased 14 pure breeds,

varieties and breeds in the making, and there are four independent deposits with public breeding stallion.

There is a huge diversification of the tourism event horse and leading the design and promotion of tourism from various programs. Depending on country, age or sex, is preferably one or another of travel programs offered horse.

Our country has great potential in this area much more than that of Spain, Austria and Hungary, precisely because there are a number of years organized units as horse studs which can complement the substantial revenue by delivering biological material to conduct equine tourism.

Currently underway are preferred as areas of equine tourism, Bukovina, Transylvania and southern Black Sea coast.

The prospect of developing this type of tourism in our country is linked to improving the facilities related to accommodating tourists, advertising in foreign magazines and overall image of Romania abroad. Because the progress of the whole tourism program involved a number of institutions and companies from various industries, increase the number of tourists is good for all these bodies. [1]

## CONCLUSIONS

Equestrian tourism is a kind of ecological tourism, which has developed well in various countries and begins to develop in Romania. It is a kind of tourism that reinstating money in rural areas. Statement of horses in agriculture will depend on the agricultural area, type of agriculture, agricultural area. No matter how much it will automate agriculture; there will always be forms of agriculture in certain areas for certain crops in certain areas, which will require heavy horse traction. In Romania, the horses working in the rural households are not always in the Light Heavyweight category and heavy horses, but for the future I hope that farmers will choose the paths that were created specifically to work, drive horses. Varieties of semi-heavy

horses and heavy horses are used with great success in tourism. For a massive horse is also calmer and wiser, can be used both for riding and for carriages specially built for tourists. The horse is an intelligent animal, powerful and was serving the man from immemorial time. Our duty to those we are close to these animals is to prove our love. In equestrian sport today is how the man keeps in touch with this noble animal: horse. Equity is a blend of art and sport. Equity is a noble sport, where patience, passion and resilience are the basic qualities. Women love this sport because of its elegance and work with one of the most popular animals: the horse. Another advantage is to substitute an alternative fitness classes more enjoyable. Thus, riding tones muscles, improves circulation and spinal cord reflexes and practice. [7]

## REFERENCES

- [1] Antonoaie Niculaie, Tiberiu Foris, Romeo Cretu, 2005 "Management in Tourism. Ecotourism - part of modern tourism", Psihomedica Publishing House, Sibiu.
- [2] Cretu Catalin Romeo, 2005 "Agro Resources, University Publishing House, Bucharest
- [3] Mărginean George Emil - "Riding". Didactic and Pedagogic, Bucharest 1999.
- [4] Mărginean George Emil - "Horse riding and sport", Courses 1994.
- [5] Mărginean George, George Georgescu, Marius Maftai - "Guide for the operation of practical work horse", Agrotechnics Publishing House 2005.
- [6] Graduation Thesis "Equine tourism - design and launch a new tourism product in Romania", graduate: Dr. Ing Mărginean George, supervisor: Prof. Dragomirescu Ilona - expert in tourism, 1997.
- [7] Mărginean George - "Treaty hippology, Vol 1, Ed. Orion, Bucharest.
- [8] National Institute of Statistics – "Romania tourism - shortlist statistical" 2000-2009.
- [9] Review the Country Holidays, 2007, 2008.

## THE ANALYSIS OF THE MAIN EUROPEAN UNION MEMBER STATES' LEGISLATION PROVISIONS REGARDING RURAL TOURISM

Petrică ȘTEFAN<sup>1</sup>, Carmen MORARU<sup>2</sup>, Dragoș RĂDUCAN<sup>1</sup>

<sup>1</sup> University Of Agronomical Sciences and Veterinary Medicine, No. 59, Blvd. Marasti, 011464, Bucharest, Romania, (+49) 021/2242815, 0723554321, stefanmarian2004@yahoo.com.

<sup>2</sup> Ministry of Regional Development and Tourism, General Department for Tourism Promotion, No.38, Blvd. Dinicu Golescu, 010873, Bucharest, Romania, Tel.:+4(021)20.70.741, Fax: +4(021)20.70.742, e-mail: promovare@mturism.ro

<sup>3</sup> Magest Tourism, No 4, Blvd. Dimitrie Cantemir, Bucharest, Romania, Tel: 021-336.70.04, 0744.544.056, Fax: 021-336.70.05, www.magest.ro

**Corresponding author** : stefanmarian2004@yahoo.com

### Abstract

*In this paper we aim at analysing the main legislation provisions in the most important European Union countries, regarding rural tourism and agrotourism. The purpose of this analysis is to identify the best solutions for the development of agrotourism in our country. From the performed analysis, it results that in the most representative European countries, in terms of rural tourism, regulations are very clear, even if they are different from one country to another. This is practically the basis for the boom in the development of rural tourism and agrotourism in the past few decades. The main conclusion is that in Romania we must also promote clear, unitary regulations, without which the development of agrotourism is not possible.*

**Key words:** rural tourism, legislation, European Union, agrotourism.

### INTRODUCTION

Regarding the accommodation in the rural environment, we notice certain evolutions which can raise problems:

-the decrease in and ageing of the population, which risk reducing the local development;

-the peasant houses reconstruction and refurbishing programmes for receiving foreigners imply an optimum accommodation, modernisation, regrouping of houses and a collective offer for local services.

-the initiatives are taken by the central tourist organisations, which can further lead to a village standardisation from a tourist point of view;

-in certain EU countries, there is a multitude of strategies and labels for the rural tourist offer, each region wanting to customise their own products as compared to similar regional ones. These initiatives are justified by the search for a regional "tourist identity" [3].

### MATERIAL AND METHODS

In this paper we aim at analysing the main legislation provisions in the most important

European Union countries, regarding rural tourism and agrotourism.

The purpose of this analysis is to identify the best solutions for the development of agrotourism in our country [1].

In the EU space, the reception structures are diverse and differentiated according to the specificity of the offer: rural tourism, in general, or farm-based tourism (agrotourism).

-In addition to the small-holder's farm there may be other accommodation facilities belonging to a small-holders' association, other natural persons or local communities.

-Accommodation facilities generally bear a certain quality logo, which corresponds to the association promoting them.

### RESULTS AND DISCUSSIONS

#### In Germany

The special offer for rural tourism is *Holiday in the peasant establishment*, which reflects the features of the farm, in which the tourist wants to find small and draft animals, own products, regional specialties, personal contact with the host, atmosphere typical of

the peasant establishment. The Rural Tourism product defines all the offers in the rural environment, not strictly related to the peasant establishment. Holidays are offered in non-farming establishments, stays on holiday houses, private houses, holiday lodgings are offered. The most common type of accommodation in the rural environment is the tourist house (5-6 rooms with 10-12 places) within the farm. In addition to the house, the farmer can also organise other types of accommodation within the farm: **equestrian farms, camping, inn-farms, etc** [2].

In **France** there are already the following types of accommodation in the rural environment: **The inn-type farm, The stay-in farm, The equestrian farm, The reception Farm, Camping on the reception farm, Stopovers (gîtes rurales)**

- **The inn-type farm**, which represents a establishment which has important areas of land and an adequate building. It can be managed by several farmers and the workforce is concentrated in family association;

- **The stay-in farm**, which includes three compulsory reception elements (accommodations, meals, leisure) and targets holidays or week-ends. The reception of tourists (in a small number) is made in a family atmosphere, and it does not affect the farming activity. Outside it must look agreeable, with plenty of flowers and vegetation, it must observe the local style; the maximum number of rooms is five, with an area of 10 m<sup>2</sup> per room, which must have at least one bathroom with a shower;

- **The equestrian farm** – is the rural establishment which can provide facilities for learning and practicing how to ride a horse, with accommodation and meals. It is managed and organised by several farmers who can become partners;

- **Camping in the reception farm**. Under this title, the *Agriculture and Tourism Association* brings together *Camping on farm and in natural camping areas*. The farmers have the possibility to receive guests, friends and other people who do camping and caravan camping on their land. In addition to this accommodation, though the *Camping on the farm and in natural camping areas* Charter,

camping sites are provided by village and town halls (6 locations) or prefectures (25 EUROGITÉS –Fédération Européenne de Logement Rural, Report, 2009);

- **The reception farm** is an agricultural enterprise with family character, which provides an area of at least 300 m<sup>2</sup> for the stay, with easy access, floricultural and tree vegetation which supplies the shade, everything being located near the farm. The equipment (sanitation, cleaning, maintenance) must be of a high quality and provide good hygiene and an agreeable and attractive atmosphere.

- **Stopovers (gîtes)** are lodgings organised in buildings which are not used for farming purposes. These are registered under the *Gîtes de France* brand; they group over 30,000 owners with about 50,000 places and target the holiday-makers who stay near a farm or village. There are various types: rural stopover (36,000 stopovers), camping on the farm (1000), refuge stopover (600), children stopover (460), fishing stopover (150), guest rooms (6600).

**In Spain**, accommodation in the rural environment is provided through **rural stopovers, equestrian farms, inn-farms, guest rooms** grouped in *Basque Agrotourism and Balearic Agrotourism Associations* [3].

**In Great Britain**, accommodation at citizens' places in the rural environment including breakfast (the so-called "Bed and Breakfast") has become an institution and there are over 400 accommodation facilities (houses, equestrian farms, farm camping sites, guest rooms).

**In Belgium**, the accommodation activity at citizens' places is considered a way of marketing the cultural heritage in the rural environment, in order to stop the rural exodus. As representative accommodation facilities, there are: farm houses, rural stopovers, farm camping sites, the inn-farm, guest rooms, children stopovers.

**In Luxembourg**, tourist accommodation at citizens' places represents the most useful activity in rural tourism development, because it targets the increase in the reception capacity (especially in the poor areas in the hotels or where there is excess labour). Farm houses,

rural houses (stopovers) and guest rooms are used.

**In Greece**, according to the *Greek National Tourism Office*, in the non-urbanised regions, the accommodation activity at citizens' places (citizens who work mainly in farming) brings a plus in revenues as a result of accommodating and selling craftsman and farm products (farm houses, guest rooms).

**In Ireland**, the accommodation at citizens' places is considered a way of marketing, from a tourist perspective, the rural houses (farms and peasant houses) and the village in general by means of farm camping sites, equestrian farms, guest rooms.

**In Portugal**, *Turihalle* brings together the owners of the old manor houses, providing a permanent contact with Portugal's history and old traditions. It also operates in order to preserve the country's architectural and cultural heritage.

#### ***The general camping regulation***

**In Germany**, the general camping regulation does not provide a clarification thereof at national level. Yet, the sanitary conditions are checked by the administration.

**In Greece**, camping is little encouraged for reasons related to environment and tourist areas protection. As a particular feature, almost all the camping sites are at the seaside.

**In Great Britain**, camping has a long tradition, beginning with farm camping and ending with veritable hotels located in the open. It is worth mentioning that caravanning is strongly developed.

**In Italy**, because the constitution confers autonomy to the regions, the classification of camping sites is made according to the various criteria, according to the respective region.

#### ***The holiday villages regulation***

Holiday villages benefit from a partnership with the local communities and they are co-funded from public and social funds.

Types of tourist villages adopted by the French terminology (*Gîtes Eurovillager*):

- *Village de Gîtes* ("stopover" villages) – groups of communal lodgings organised as villages, completed with restaurants, parks for the children, meeting rooms, sports

equipment, etc., most often made as a lessee promoter on the commune land;

- *Village de Vacances* (holiday villages) – represent the set of buildings which are the object of a global business with a commercial character or not, meant to provide holiday stays and loisirs;

**Holiday villages without a lucrative purpose (for children)**. They must have a minimum of set of equipment and services, such as: hot water equipment, rest rooms; preparing the menu for children and the possibility to provide food services that are different from those for adults; playgrounds for children;

- Dispersed villages – they are the set of varied lodgings, collective services, loisir and entertainment equipment placed on an area of land covering several communes grouped in an organisation and management single feature.

#### ***Other regulations***

In most countries the regulatory provisions are in favour of rural inns and hotels, considered "social life sites and local development cores"[1].

These may be: private, grouped in chains, associations, owned by local groups.

Hotels or inns can be set up in: old village mills, castles and manor houses, under the form of guest houses. The rural space becomes more and more a privileged environment for the high-class traditional hotel equipments: PARADORES in Spain, POUSSADAS in Portugal, RELAIS ET CHATEAUX in France, HEALTH FARMS in Great Britain. In order to avoid over-marketing and anarchic competition, it is required to set and observe certain technical norms for each rural hotel and inn formula.

#### ***Tourist demand analysis***

Professional associations study the tourists' socio-professional structure, which actually illustrates the tourist market for rural tourism offers.

#### ***Germany***

Summer tourists represent 85% of the total, of whom: 50% have a 10–15-day stay, 26% a 14–20-day stay, resulting in an average 10-12-day stay/tourist.

We notice an increased seasonality, the preferred months being June-August. Regarding the clients, they represent the middle class, families with children (80%), intellectuals, workers and elderly persons. In terms of the age, 20% are below 30.

#### ***In France***

The French represent 89% of the clients, preferring the off-season and accommodation with relatives, friends, a second residence. Foreigners arrive in July-September and stay in rural hotels and camping sites. The holiday in the countryside is not an ideal option for the French (11.4% compared to 40.7% for the seaside and 27.5% for the mountains). Nevertheless, an investigation performed by the National Federation of Tourist Offices and Initiative Unions (FNOTSI) indicated that “the holiday in the countryside” is preferred by more and more tourists. The clients motivated by this form of tourism are part of the middle and high social classes (management staff, teachers, freelancers) generally aged 25-45. Britons, Germans, Belgians arrive from abroad [2].

**In Belgium**, the “holidays in the countryside” clients come from the middle and high classes, they are of all ages, including families with children, from the country (60%), Holland (20%), Denmark (12%).

**In Denmark**, they have clients representing families with average incomes (50%) and with children (50%). The British (50%) with average incomes arrive in the off-season.

**In Spain**, in the Basque Country, tourists have average incomes and liberal professions. The tourists’ age is of: 20–30 (50%), 30–40 (30%) and over 40 (20%).

**In Great Britain**, the clients are local people (90%), with average incomes and the age between 15–30.

**In Ireland**, there are tourists with higher incomes, freelancers, teachers, journalists of all ages from countries such as: The USA, Canada, Australia, New Zealand, Europe).

**In Italy**, the tourist demand is dominantly local (75%), but also from other European countries; it results from families with average incomes.

## CONCLUSIONS

From the performed analysis, it results that in the most representative European countries, in terms of rural tourism, regulations are very clear, even if they are different from one country to another.

This is practically the basis for the boom in the development of rural tourism and agrotourism in the past few decades.

The main conclusion is that in Romania we must also promote clear, unitary regulations, without which the development of agrotourism is not possible [4].

## REFERENCES

- [1] Crețu Romeo Cătălin, 2005, Legislație în alimentație publică și agroturism, Editura Ceres, Bucuresti, Capitolul 3, p. 90-93
- [2] Kotler, P./Bowen, J./Makens, J., 2002, Marketing for Hospitality and Tourism, (3rd ed.) Prentice Hall, p. 123-125
- [3] Stabler, M., 2006, Tourism and Sustainability: Principles to Practice, Cabi Publishing, Wallingford, p. 234-236
- [4] – Ordinul ministrului pentru IMM, comerț, turism și profesii liberale nr. 636/2008 pentru aprobarea Normelor metodologice privind clasificarea structurilor de primire turistice, în “Monitorul Oficial al României”, partea I, nr. 379 bis, 2008.

## COMPARATIVE ANALYSIS BETWEEN TOURISM AND RURAL TOURISM DURING ECONOMIC CRISIS (2008-2010)

**Maria STOIAN**

University of Agricultural Sciences and Veterinary Medicine, Bucharest  
59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232,  
Fax: + 40 21318 28 88, E-mail: prof.maria.stoian@gmail.com

### **Abstract**

*The purpose of this paper is to present the evolution of world tourism in crisis years (2008-2010), then comparing the data with the evolution of rural tourism for the same period. For this, we used statistical data provided by the World Tourism Organization (UNWTO), EUROGITES - European Federation of Rural Tourism, ANTREC - National Association of Rural, Ecological and Cultural Tourism and National Institute of Statistics. By analyzing the data, we identified that, although tourism has been affected to some extent by the economic crisis we face, rural tourism hasn't suffered equally, to say the fact that many ordinary people have given up their regular holidays, focusing on the rural areas, where they can enjoy lower prices, but also special experiences. In conclusion, we can say that rural tourism is the tourism branch with the greatest impact in the period 2008-2010, and this trend still seems to be the case. Another observation is the fact that rural tourism hasn't been adversely affected by the crisis, the proof of this being the higher degree of occupancy in guesthouses, but also the increase of the accommodation capacity of the villages every year.*

**Keywords:** *tourism, rural tourism, economic crisis*

### **INTRODUCTION**

Rural tourism has become, since the 90s, a major branch of the tourism industry in our country, reaching the similar phenomenon from other European countries. If, at first, this growth didn't seem to be a long term one, the idea was slowly accepted by the peasants, who have turned households in locations receiving guests. However, over the past three years, because of global economic crisis and of the way it has affected several economic branches, including that of tourism, was revealed the fact that more and more rural areas became one of the most attractive destinations, being preferred by all categories of people. Also, tourism in villages continued to develop in the same way that did before the beginning of the crisis, as a proof of the fact that it can face these times.

### **MATERIAL AND METHODS**

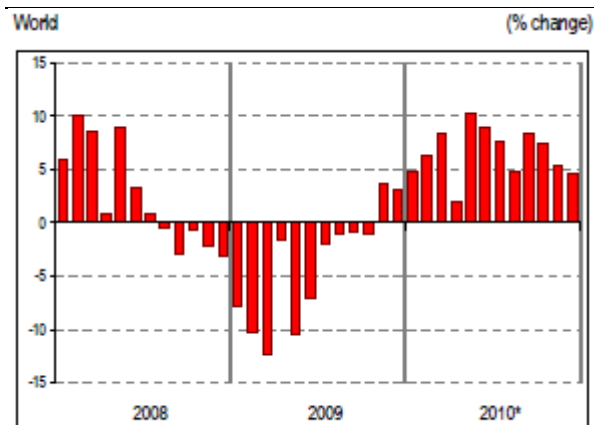
To make a comparison between the ways how economical crisis has affected tourism and rural tourism, we used certain indicators whom we've applied of several European countries. Period taken into account is of 3

years, from 2008 to 2010, but in some places we also referred to previous years because we wanted to emphasize the differences occurred. In that sense, we used the statistical information from ANTREC Romania, as well as those provided by the World Tourism Organization (UNWTO), EUROGITES - European Federation of Rural Tourism and INS - the National Statistics Institute. All these have been interpreted and analyzed so that we can see which was, is and will be the influence of the crisis on rural tourism.

### **RESULTS AND DISCUSSIONS**

In the second half of 2008, global tourism began to suffer major decreases regarding the number of tourists, the duration of their holidays become shorter and they decided to shift locations. Tourism crisis became more acute in 2009, and this decline has been felt in Europe more than in other parts of the world (Fig. 1 and Fig. 2). [2]





Source: World Tourism Organization (UNWTO) ©  
 Fig. 1 – International Tourist Arrivals, monthly evolution  
 Fig. 2 – International Tourist Arrivals in Europe, monthly evolution

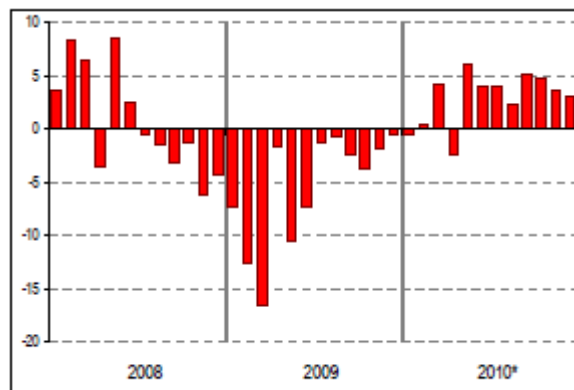
In 2010, the number of international tourist arrivals was estimated to have reached 935 million, up 58 million (+6.7%) compared with 2009 (877 million) and 22 million (+2.4%) more than during the pre-crisis peak year 2008. [2]

As was perhaps natural, in time of crisis, people were less willing to spend large sums of money for business trips or family vacations. In this context, the most advantaged were low-cost units, but with the lowest prices, to which tourists were able to refocus.

One of the possibilities was and still is the holiday on guesthouses from rural areas, because the large variety of locations provides the possibility to satisfy all demands of a family, and the price for a package of services is satisfying.

Owners of guesthouses and private farms, and they felt good moment, such as increased accommodation capacity that already owned, diversified culinary offerings and leisure activities, have turned to new methods of promotion, etc. [4]

These trends are maintained in all European countries which are members EUROGITÉS. The data provided at the end of 2010, we conclude that, as in Romania, and countries like France, Spain, Austria, Germany, Hungary, the crisis was felt in two key moments: in a first phase in early 2009 was felt a drop of about 2% in terms of employment, but recovery came almost instantly, and even led to greater demand. To



Source: World Tourism Organization (UNWTO) ©  
 this fact has also contributed the fact that many business meetings and events of the large corporations have moved to the countryside. [1]

Thus intervenes a parallel between tourism and rural tourism, with a few essential points:

- ⇒ the low cost of rural tourism means that it can pass more easily over such periods
- ⇒ rural tourism does not involve travel over long distances
- ⇒ accommodation capacity of the lower board is a plus, since it does not involve major expenditure

For our country, we have illustrated the evolution of tourism with the help of Table 1, which shows the evolution of the accommodation capacity of the existing units. Analyzing it, we can see that in 2009, in a crisis, hostel accommodation capacity increased by 17% compared to 2008, this increase was significantly higher than that recorded in 2008 compared to 2007, whose value was less than 10%. [3]

Table 1 – Existing accommodation capacity in Romania

2007	2008	2009	
<b>283701</b>	<b>294210</b>	<b>303486</b>	<b>TOTAL</b>
<i>Existing accommodation capacity (number of beds)</i>			
168857	175573	179479	Hotels
5614	5939	5836	Motels
186	136	136	Tourist inns
3522	3612	4396	Hostels
15333	15826	15772	Tourist villas
4461	4119	4553	Bungalows
5574	5207	5887	Tourist chalets
160	180	215	Holiday villages
25006	26838	25475	Camping sites
20320	19426	18875	School and pre-school camps
1152	1211	2025	Tourist halting places
13429	14538	16653	Tourist boarding houses
15448	16906	19783	Agro-tourist boarding houses
4120	4223	3945	Houselet-type units

## CONCLUSIONS

1. Rural tourism is a very important part of tourism, both in our country and in Europe
2. The trend of rural tourism imposed during the crisis years (2008-2010) was a continuous progress, mainly due to the advantages it has over other forms of tourism

3. Some steps have been taken at national and European levels, aimed to prevent crisis in rural tourism, but tourists shifts was one that made the difference

4. For the coming years provided a recovery of tourism, as it was already 2010 and rural tourism will continue to develop higher

5. We can say that this financial crisis was an opportunity for rural tourism

## REFERENCES

[1] x x x – EuroGites Survey – Business Development 2010/2011

[2] x x x – UNWTO World Tourism Barometer, January 2011, ISSN 1728-9246

[3] x x x – National Institute of Statistics, Statistical Yearbook of Romania, 2008-2010

[4] x x x – Statistical Data from ANTREC Romania

## MAXIMIZING THE BENEFITS OF TOURISM DEVELOPMENT: THE REGIONAL PERSPECTIVE

**Paula STOICEA, Maria STOIAN**

University of Agricultural Sciences and Veterinary Medicine, Bucharest  
59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232,  
Fax: + 40 21318 28 88.

**Corresponding author:** stoiceapaula@yahoo.com

### **Abstract**

*One of the most commonly referred to positive aspects of the tourism and recreation industry is its contribution to the reduction of the differences at the level of development among regions in any country. Indeed, tourism can develop in lagging and remote areas, thus creating income and jobs that would not become otherwise available. The contribution of visitors in such cases is very important and in both quantitative and qualitative aspects much more significant than the change that the same visitors would induce in an already developed region. There is a variety of tangible economic effects, both direct and indirect, of the expenditures arising from tourism recreation, including jobs, income, investment and tax revenues. The direct effects concern lodging, restaurants, transportation, entertainment and retail trade. The secondary effects refer to a very wide array of sectors in the economy: increase of production, resources, sales and number of jobs, increase of prices, demand due to the diversity of merchandise and services.*

**Keywords:** rural tourism, economic impact, direct effects, indirect effects.

### **INTRODUCTION**

Sustainable tourism is a tourism development or activity that respects and helps to preserve, in the long term natural, cultural and social resources and contributes positively and equitably to the economic development and general benefit of those individuals who live, work and stay in the locality. [1]

In Romania there are many traditional villages, which may be called eco-villages. Eco-village is a rural community who strive to integrate a supportive social environment with a low-impact way of live. Romanian village with tourist vocation in particular, is a unique tourism product, equally for as well as national and global market. [2] Rural tourism in 2008 compared to 1996 registered an increase of accommodation in hostels for rural tourism in 1996-1348 to 61 rural touristic boarding houses, the level of accommodation capacity from 332 places in 1996 to 16906 places in 2008. [3]

On the other hand, it has been suggested that although in the short term the use of natural or man-made attractions for attracting tourists is the easiest and fastest development

alternative, in the long run the orientation towards a recreation based economy might not be the best option. Instead, modernising the primary sector in a lagging region might constitute a more sustainable solution. In other regions, introducing a solid industrial base (different than the industry or handicraft complementing the recreation industry) might also be better. In general, the assumption that any lagging region will either evolve to become a tourism destination or not develop at all, is applicable only in extreme cases of regions where indeed there is not any other prospect. Judging from experience at international level, the necessary preconditions for the tourism and recreation industry to become the key sector in a region and catalyse development could be summarised as follows:

- Various sectors of the local productive system should be already well developed and competitive enough to be able to fully exploit the opportunity of linkages with the growing tourist industry;
- The local tourism sector should include business entities of small to medium size,

preferably owned and controlled by local people or institutions;

- The tourism and recreation industry should be growing locally in parallel with other productive sectors.

- The demand for the local tourist “product” should not be diminishing.

## MATERIAL AND METHODS

This paper is on the role that tourism and recreation industry (referred to as a complex of economic activities) can play in the economic development of a geographical area. The analysis consists reviews briefly the economic, social and environment impacts of the tourism industry, and also the direct and secondary effects on employment and incomes at regional level and the notion of *multiplier*.

## RESULTS AND DISCUSSIONS

*Economic impacts.* It has been estimated that over half of tourism expenditure is spent on accommodation and food. This in practice means that the sector is comprising mainly service and trade activities which are relative easy to entry and this in turn means a great number of enterprises, small in size, with low capital intensity and productivity. The magnitude of the economic impact of the recreation industry at local level is determined by four main factors:

*Location and nature of the resources:* the ability of a destination to attract visitors is proportional to its appeal and inversely proportional to its time distance from the residence of the potential visitors.

*Volumes of visitors:* this depend on the factors mentioned before.

*Visitors' spending:* this is a function of the variety of things to see and do in the destination. Although the available family income of visitors is also of importance, this is not the crucial factor determining their amount of expenditure while on holiday.

*Expenditure retained locally:* there depends on the capacity of the local productive system to accommodate the visitors' demand for goods and services locally and employed as

much as possible local people and other inputs. Visitors' demand has no significant positive effect for the destination unless there is local supply which is based on diversified local economy.

Tourism expenditure is directly channelled to the following sectors:

*-service sector, including lodging and entertainment,* provided locally, the impact of the relevant expenditure is most directly felt, particularly in terms of employment since recreation businesses are labour intensive.

*-trade (wholesale and retail) sector* through the purchase of various goods;

*-real estate sector* through capital investment in real estate for the construction of recreation facilities and vacation houses – this expenditure effects the local tax base and creates jobs within the construction industry.

There is a series of economic impacts taken less often into consideration, including rise of prices in the host region, mainly in the housing and retail sector, increase in the variety of services and goods available in the local market and changes in property and other local taxes.

*Social impacts.* The social factors in the tourism industry might include three sets of independent variables:

*Visitor's profile:* social and demographic characteristics, typology, motivation for travelling and stereotypes due to advertisement.

*Visitors-residents interface:* visitors' behaviour, cultural, social and economic difference, servility, stereotypes, commercialisation, competition, exploitation, concentration in time and space.

*Structure and characteristics of the tourism sector,* control of the market by tour operators, ratio of international visitors, national and local policies.

These would jointly generate the social impacts that can be traced in the following fields: social structure, culture and tradition, occupational structure, social mobility, urbanisation, social standards, demonstration effect, environment, built space, economic dependence, professional mobility.

*Environmental impacts.* Major tourist destinations include areas with exceptional

natural resources or man-made environment and great scenic beauty. Since visitors value are attracted by nature, it follows that destinations are protected and kept from ecological decline. Tourism generated revenues are expected to allow for preservation and restoration, to the benefit of visitors and residents alike. The public perception of tourism is one of a "cline" industry: hotel, restaurants and shops discharge much less pollutants than factories. But tourism can degrade the environment, since overuse and visitor generated pollution can deplete local resources, thus undermining the capacity of the host regions to attract tourists. The negative environment impacts of tourism can be outlined as follows:

*Pollution of soil, water and air* due to improper disposal of solid and liquid waste, lack of treatment plants, increased road traffic and energy production and consumption.

*Visual pollution* due to alteration of landscape appearance by construction, billboards, etc.

*Noise pollution* due to increased traffic and overcrowding.

*Exhaustion of natural carrying capacity.*

*Exhaustion of the capacity of technical infrastructure.*

*Increased demand for land*, especially for prime locations, leading to reduction of land available for other uses (for agriculture).

*Flora and fauna* can be destroyed.

*Historic sites and buildings or monuments* can be degraded due to excessive visitation.

Also, measuring the economic impacts of tourism at regional level is achieved through direct and indirect effects on the region.

There is a variety of tangible economic effects, both direct and indirect, of the expenditures arising from tourism recreation, including jobs, income, investment and tax revenues. The direct effects concern lodging, restaurants, transportation, entertainment and retail trade. The secondary effects refer to a very wide array of sectors in the local economy. When trying to trace the flow of tourism expenditure one must deal with effects such as: suppliers of goods and services to the tourism businesses, household income generated through employment in tourism, the public sector through taxes and

fees imposed on tourists, businesses and households. The recreation industry is not uniform and there is much variation in the direct employment effect of different tourism businesses, as some are more labour intensive than others. It seems that hotel and motels may offer more jobs, whereas restaurants and cafeterias produce slightly less jobs. Nevertheless, it should be noted that most new jobs in the tourism establishments would not require highly skilled employees (with the exception of those at management positions) and would not be appropriate for well trained and qualified local people, who would still need to look for employment elsewhere.

Recreation offers directly two kinds of work and income: earnings for proprietors and jobs for employees. Disposable income of the employees is dependent on the wage level as well as the duration of employment, which in general is limited by the seasonal character of the industry.

Tax revenues from recreation activities constitute a significant contribution to the host area. In particular, real estate taxes from recreation enterprises and vacation houses provide most of the local tax income, whereas other taxes provide mainly income for national authorities. Real estate tax revenues depend mainly on the magnitude of the invested capital and the corresponding value of the assets. Vacation houses are in general more highly assessed than others in the same area, since as a rule they are newer and better constructed. Tax income from recreation enterprises vary with investment, but usually exceed revenues from other local commercial establishments. A considerable negative fiscal impact is the cost of road improvement and maintenance, traffic control, garbage collection and disposal, maintenance of local public Parks and buildings, and provision of utilities (if this is within the competences of local authorities). In each case, one needs to obtain accurate and precise figures for establishing a cost benefit ratio between tax revenues and public service expenditures.

Indirect effects are changes in the production (and corresponding increase in jobs and incomes) due to increased demand for input

from the backward linked industries by the businesses of the recreation industry.

Induced effects are any local increase in the economic activity due to household spending of income earned directly or indirectly due to tourism expenditure in the area. Through indirect and induced effects, tourism expenditure influences almost every sector of the local productive system. The volume of the secondary effects depends on the degree to which businesses and households in the area purchase goods and services from local suppliers. For measuring secondary impact is calculated the value of the local multiplier. The arithmetic value of the multiplier varies inversely with the magnitude of the leakages associated with the tourism expenditure and the local productive system. Saving might be one reason for leakages in the local re-spending process. Another cause for leakage would be spending outside the region, on imported goods and services. Obviously, the bigger the portion of the income spent locally, the greater will be the value of the multiplier. Regional income growth as a self-sustained process through successive local re-spending of tourism generated income is feasible only if there are locally available the necessary unused resources for producing the specific goods and services upon which income is spent. By focusing on the ultimate employment and income effects one should not neglect the complex network of inter-industry linkages and the consecutive transactions that take place locally in order to deliver the final demand. At each round in the expenditure – income chain, inter-industrial effects are produced and each one can be also analysed in terms of direct and indirect impact. This network of effects can be mathematically solved in an inverse matrix of the regional input-output table, where all the repercussions of the delivery to final demand are identified and summed up. If household consumption are included into the regional network of transactions, then the successive re-spending of tourism generated household income will also be captured into the accounting matrix and then both income and inter-industrial multiplier effects will be represented.

## CONCLUSIONS

1. Tourism can provide supplementary income to a local economy that includes at the same time more varied activities, the recreation itself, it is rather difficult to form the basis of sustainable community.
2. In order to strengthen regional cohesion and development, to make the regions more flexible and competitive on the national and European levels it is primary to make full use of their competitive advantages.
3. The development axes which should be included in the national strategy, are: strengthening competitiveness, improving accessibility and services of general economic interest, upgrading and protecting the environment and averting possible dangers, developing human resources and promoting employment, improving the managerial competence of the public administration.
5. Developing the concept eco-village through organic farming and other approaches which promote ecosystem function and biodiversity, through to integrate community and ecological values within a principle-based approach to sustainability.
6. Tourism development in rural areas should to be made based on projects and programs that cover all aspects of social, economic and cultural life of the local population.

## ACKNOWLEDGEMENTS

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## REFERENCES

- [1] Vasile Glavan, Turism rural, agroturism, turism durabil, ecoturism, 2003, Ed. Economica, Bucuresti, p 145.
- [2] Puiu Nistoreanu, Marilena Ghes, 2010, Turism rural. Tratat, Ed. Gh. Bech, p. 126.
- [3] x x x –Institutul National de Statistica , Anuarul statistic al Romaniei, 2010.
- [4] x x x –Project no. 36694/2009 POSDRU, “Human resource, a valuable investment in Rural Tourism”.

## IMPLEMENTATION OF RURAL DEVELOPMENT PROJECTS OF THE COUNTY OFFICE OF PAYMENTS FOR RURAL DEVELOPMENT AND FISHING (COPRDF) FROM ARAD COUNTY

Dorina ȚĂRĂU<sup>1</sup>, Nicoleta MATEOC-SÎRB<sup>2</sup>, Camelia MĂNESCU<sup>2</sup>, Cristian CÂMPAN<sup>3</sup>, Cristian MATIAȘ<sup>4</sup>

<sup>1</sup> County Office of Payments for Rural Development and Fishing, Arad; Adresa: Arad, str. Cloșca nr. 6a, județul Arad Telefon/ Fax: (004)0257 255479; 0257 255134

E-mail: ojprp.arad@apdrp.ro

<sup>2</sup> University of Agricultural Sciences and Veterinary Medicine of Banat, Timisoara, Calea Aradului 119, 300665, Phone: 0744604349, Email: mateocnicol@yahoo.com

<sup>3</sup> APIA – The Agency for Payment and Intervention in Agriculture, Arad

<sup>4</sup> PARDF - Payments Agency for Rural Development and Fishing, Timiș

*Corresponding author:* mateocnicol@yahoo.com

### Abstract

*With access to the European Union Romania has created the institutional conditions necessary for the application, in good conditions, of the National Rural Development Programme (NRDP) for 2007-2013. Expressed in figures, the activity of COPRDF from ARAD county is finally materialized through the number of projects submitted by public and private beneficiaries, ways of implementation, the efficiency with which acquisition files are instrumented and not least through solutioning files on payment requests and reducing the period of payment reimbursement and the costs done by the project's beneficiaries. In this paper the authors perform an analysis on the situation of the projects financed by the NRDP in Arad county. Issues are presented on the situation of the submitted eligible, selected, contracted, partially paid, completed projects and the measures implemented until 31 December 2010.*

**Keywords:** implementation projects, rural development, county, measures

### INTRODUCTION

The main institutions involved in implementing the NPRD 2007-2013 and that managing the European Fund for Agriculture and Rural Development - EFARD are:

- MAFRD – General Directorate for Rural Development, which functions as Management Authority for NRDP and ensures corresponding management for the community funds, establishing the priorities and the concrete action measures;

- PARDF - Payments Agency for Rural Development and Fisheries as body payment for all measures of the NRDP, except those for disadvantaged areas;

- APIA – Agency of Payment and Intervention in Agriculture, also a body payment for disadvantaged areas;

- Payments Agency for Rural Development and Fisheries, Bucharest, PARDF, was established in the Government Emergency Ordinance from 13/2006, by reorganizing the

SAPARD Agency, and it received operational accreditation as Agency which manages the European Fund for Agriculture and Rural Development EFARD, by order of the Minister of Agriculture and Rural Development, signed on 15 December 2007.

Through the PARDAF accreditation it has been established, according with the European Commission Regulation no. 885/2006, that the Agency meets all required criteria on organizational structure, standards of human resources and public relations, internal procedures, information system security and other specific activities as well.

The Payments Agency for Rural Development and Fisheries – PARDF - provides technical and financial implementation of the European Fund for Agriculture and Rural Development EFARD.

In order to achieve its purpose in good conditions the agency has an organizational structure consisting of three segments, which are found:

- at central level=PARDF;
- at regional level (regional centers)=RCRDF
- at county level (county offices)=(COPDRF)

At regional level there are 8 Regional Centers for Rural Development and Fisheries (RCRDF) and 42 County Offices of Payments for Rural Development and Fishing (COPDRF), placed, in accordance to developing regions, based on Law 315/2004, with further changes and additions.

The County Office of Payments for Rural Development and Fishing Arad receives and records financing applications for the projects made by public or private beneficiaries and all administrative structures of Arad County, including 68 communes and villages, 9 towns and the city Arad.

The County Office of Payments for Rural Development and Fishing Arad has no legal personality, doesn't make payments and does not make accountant balance, having and holding primary accounting only the for the administration and the operation costs distributed by PARDF, Bucharest.

## MATERIAL AND METHODS

The research has been conducted at County Office of Payments for Rural Development and Fishing (COPDRF) Arad, which is in direct subordination to the Regional Center for Rural Development and Fisheries WEST TIMIS and covers all the issues of implementation of SAPARD and EFARD programs at the level of ARAD county.

Collected data has been centralized, analyzed and interpreted so that we were able to obtain relevant conclusions.

## RESULTS AND DISCUSSION

Analyzing the number of projects submitted and instrumented on COPDRF Arad, their situation, at 31.12.2010 presents as follows:

- **MEASURE 112 - The establishment of young farmers:**

- submitted projects=588
- eligible projects=338
- selected projects= 338

- selected eligible value= 7.074.865 Euro
- public contribution (EU + Romanian State)=7.074.865 Euro
- contracted projects = 223
- partially-paid projects = 223
- payments made= 2.917.398 Euro
- total completed projects = 3

The second session of 2010 is under current evaluation.

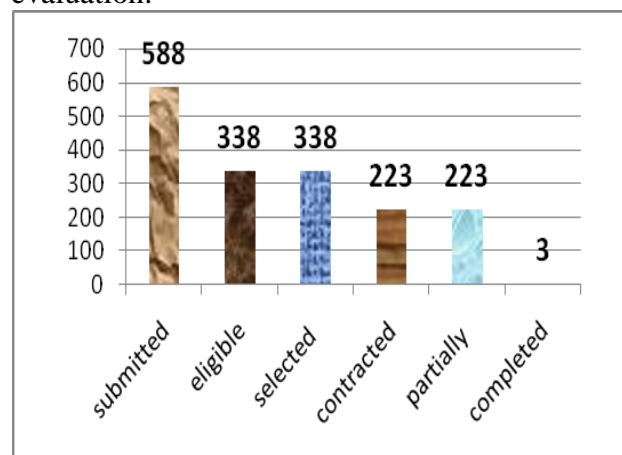


Fig. 1. Situation of projects submitted and instrumented on the COPDRF Arad

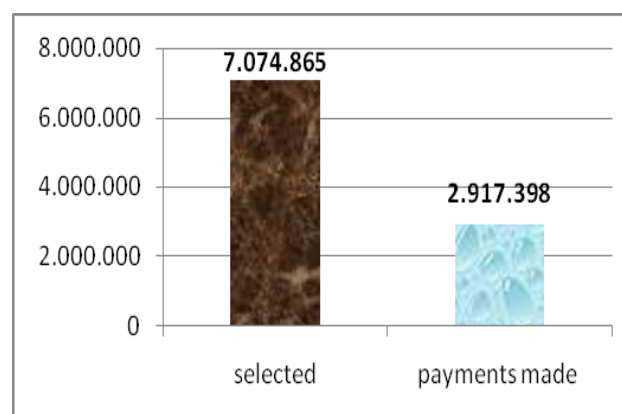


Fig. 2. Value of public contribution EU and Romanian State ( euros)

- **MEASURE 121: Modernization of agricultural holdings:**

- submitted projects= 227
- eligible projects= 185
- selected projects= 43.568.457 Euro
- selected eligible value= 43.568.457 Euro
- public contribution (EU + Romanian State)=22.757.855 Euro
- contracted projects =61
- partially-paid projects = 61
- payments made = 14.598.989 Euro
- total completed projects = 43



The second session of 2010 under current evaluation.

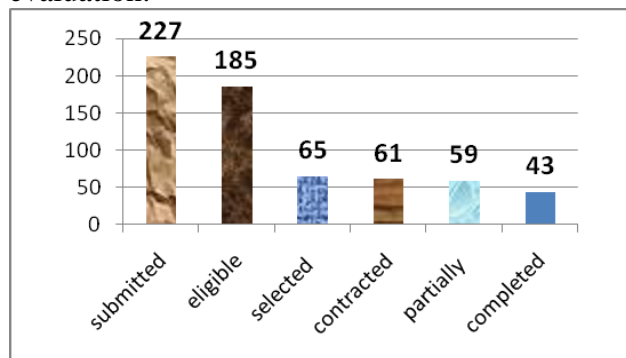


Fig. 3. Situation of projects submitted and instrumented on COPDRF, Arad

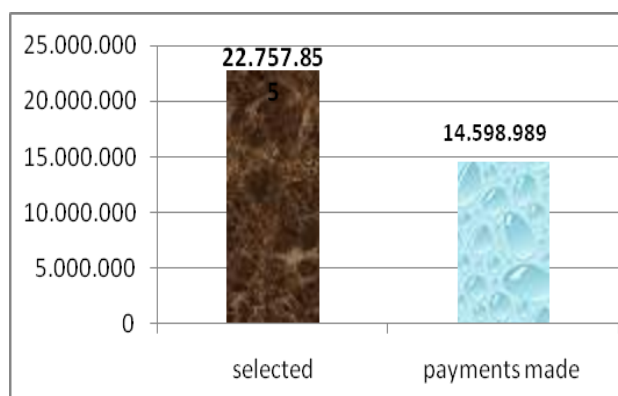


Fig. 4. Value of public contribution from the EU and the Romanian state (euro)

**• MEASURE 123: Increase value added to agricultural and forestry products:**

- submitted projects= 46
- eligible projects= 29
- selected projects= 22
- selected eligible value= 45.101.368 Euro
- public contribution (EU + Romanian State = 22.550.681 Euro
- contracted projects= 14
- partially-paid projects = 4
- payments made = 2.441239 Euro
- total completed projects = 1

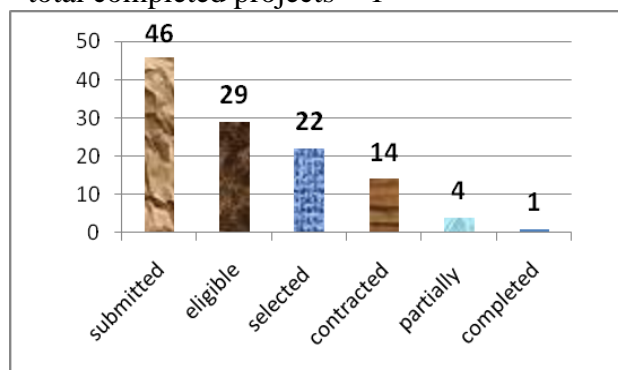


Fig. 5. Situation of projects submitted and instrumented on the COPDRF, Arad

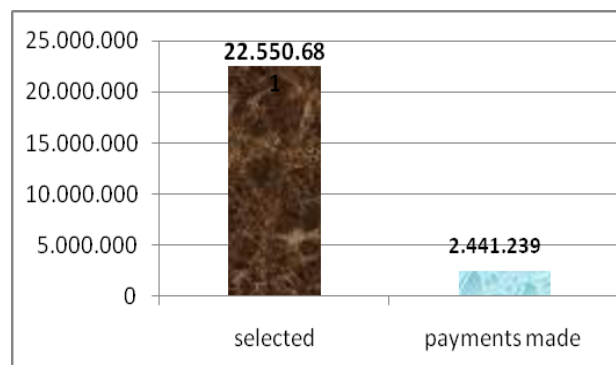


Fig. 6. Value of public contribution EU and Romanian State (euros)

**• MEASURE 123A si 123F State aid schemes „Stimulation of regional development by making investment, for processing agricultural and forestry products to obtain non-agricultural products”:**

- submitted projects= 7
- eligible projects= 6
- selected projects= 6
- Selected eligible value= 4.857.385 Euro
- public contribution (EU + Romanian State = 2.428.592 Euro
- contracted projects= 3
- partially-paid projects = 3
- payments made = 427.053 Euro
- total completed projects = 1

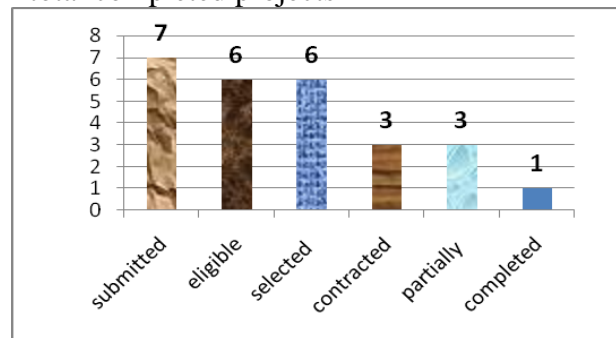


Fig. 7. Situation of projects submitted and instrumented on the COPDRF, Arad

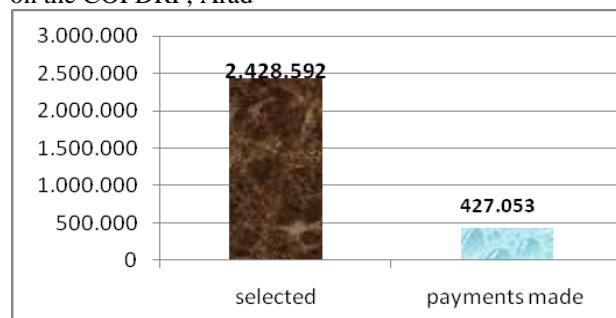


Fig. 8. Value of public contribution EU and Romanian State (euros)

**• MEASURE 125: Improving and developing infrastructure related to the development and adaptation of agriculture and forestry:**

- submitted projects= 28
- eligible projects= 17
- selected projects= 4
- selected eligible value= 4.096.897 Euro
- public contribution (EU + Romanian State = 4.096.897 Euro
- contracted projects= 4
- partially-paid projects = 0
- payments made = 0 Euro
- total completed projects =0

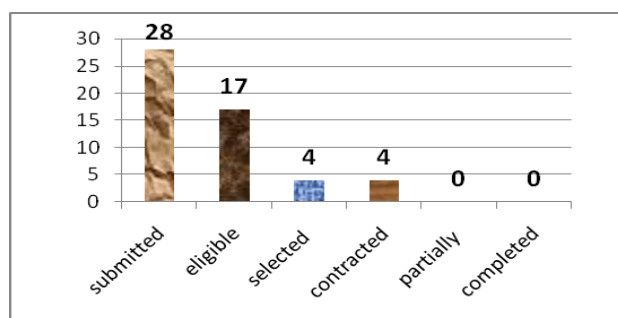


Fig. 9. Situation of projects submitted and instrumented on the COPDRF, Arad

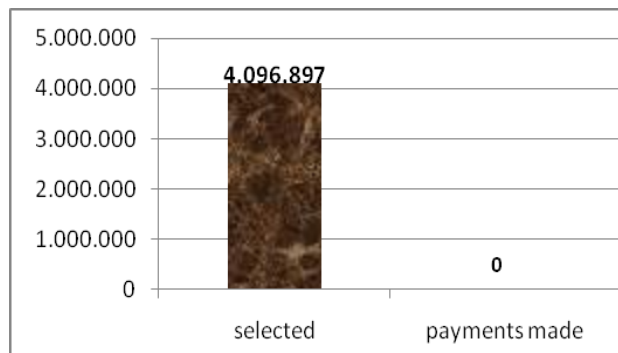


Fig. 10. The amount of public contribution to the EU and the Romanian state (euro)

**MEASURE 142 - Setting up producer groups**

The projects session is open continuous going to be submitting projects on the measure of formation of producer groups.

**• MEASURE 221 - First reafforestation of agricultural land**

**• MEASURE 312 - Support for the creation and development of micro enterprise;**

- submitted projects = 172
- eligible projects=151
- selected projects = 114
- the selected eligible value = 20.724.133 Euro

- public contribution (UE+Romanian state) = 14.506.861 Euro
- contracted projects = 74
- projects partially paid = 58
- payments made = 3.353.514 Euro
- projects total completed = 9

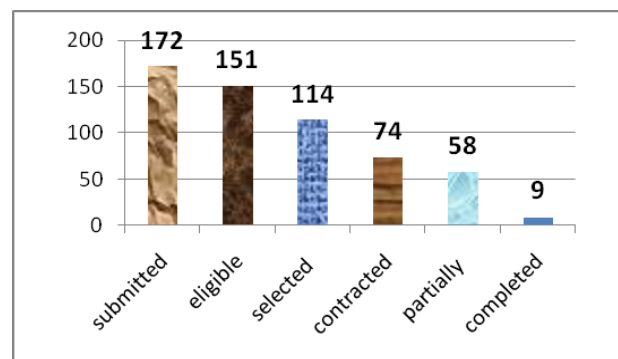


Fig. 11 The situation of the projects submitted and instrumented to ODPRDF Arad

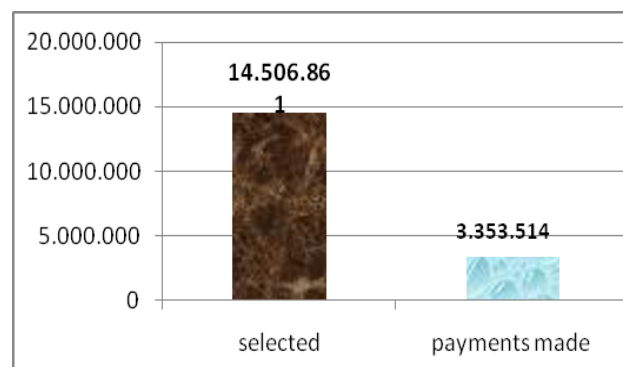


Fig. 12. Public benefits from EU and the Romanian state (euro)

**• MEASURE 313 - Encouraging tourist activities**

- submitted projects = 43
- eligible projects = 3
- selected projects = 3
- the selected eligible value = 1.266.010 Euro
- public contribution (UE+ Romanian state) = 633.005 Euro
- contracted projects =3
- projects partially paid = 2
- payments made = 208.377 Euro
- projects total completed = 0
- **Session of 2010 is under evaluation.**

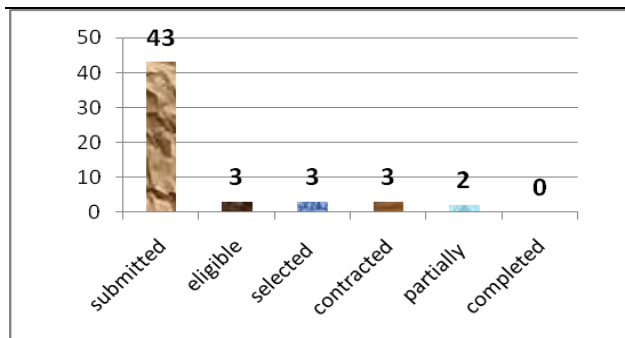


Fig. 13. The situation of the projects submitted and instrumented to COPRDF Arad

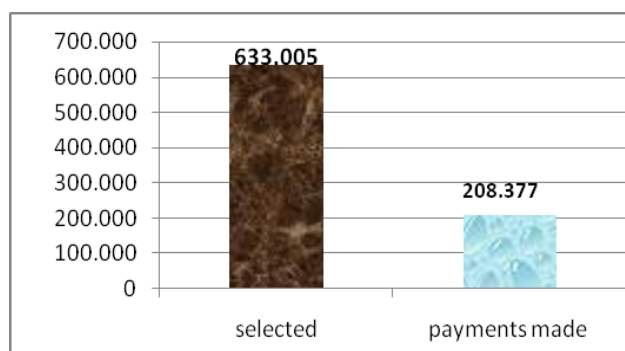


Fig. 14. Public benefits of the EU and the Romanian state (euro)

• **MEASURE 322: Renovation and development villages, improving the economy and basic services of the rural population and increasing the value of the rural heritage;**

- submitted projects = 54
- eligible projects = 43
- selected projects = 10
- the selected eligible value = 25.647.095 Euro
- public contribution (UE+Romanian state) = 25.647.095 Euro
- contracted projects = 10
- projects partially paid = 2
- payments made = 2.861.447 Euro
- projects total completed = 0

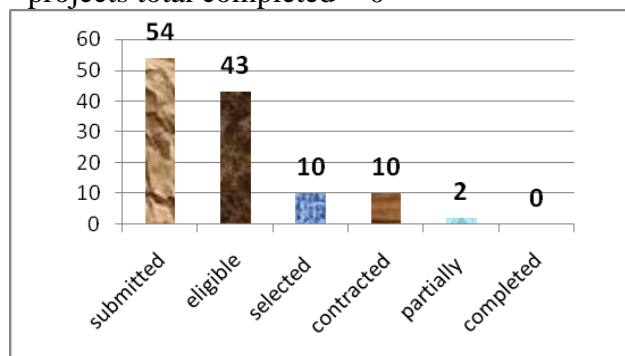


Fig. 15. The situation of the projects submitted and instrumented to ODPRDF Arad

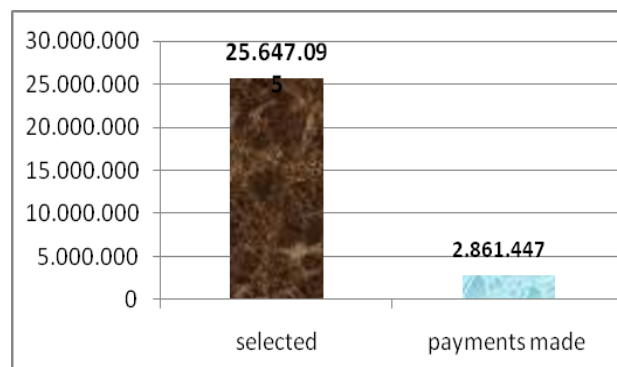


Fig. 16. Public benefits of the EU and the Romanian state (euro)

• **The centralization situation of the projects**

From the above data results from COPRDF Arad the **centralized situation of the projects** at 31.12.2010 is presented as following:

- submitted projects = 1165
- eligible projects = 772
- selected projects = 562
- the selected eligible value = 152.336.210 Euro
- public contribution (UE + Romanian state) = 99.695.851 Euro
- contracted projects = 392
- projects partially paid = 353
- performed payments = 26.808.017 Euro
- total of completed projects = 57

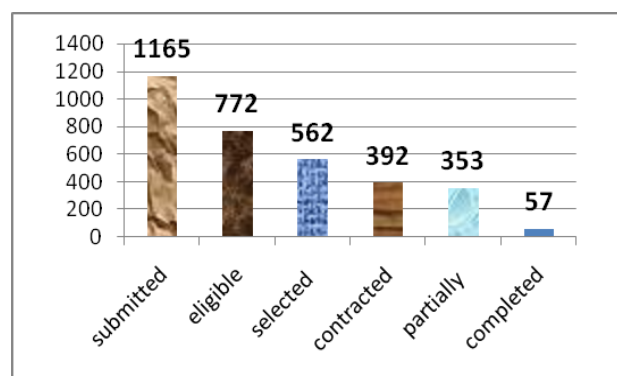


Fig. 17. The situation of the projects submitted and instrumented to ODPRDF Arad

With the mention that they are in course of evaluation:

- second session of 2010 on *Measure 112*
- second session of 2010 on *Measure 121*
- session on *Measure 313*

The degree of absorption : value of performed payments / value of selected projects is 22.87%.

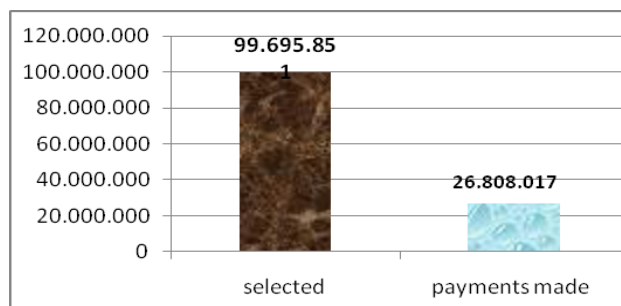


Fig. 18. Public benefits of the EU and the Romanian state( euro)

We mention that COPRDF Arad made payments on *Measure 141* – projects submitted to DARD Arad. PARDF only deals with their payment through COPRDF Arad. On *Measure 141*, 166 payment requests worth 249.000 Euro were paid by 31.12.2010.

Payment projects financed of EAFRD continue according to the contracts signed with the public or private beneficiary and according to rescheduling of recorded requests for payment submitted by them, according to the graphic for the achievement investment until full completion of the objective included in the project.

After this time the role of the COPRDF Arad is materialized by ex-post and beneficiaries monitoring for a period of five (5) years from the last installment of payment.

## CONCLUSIONS

- The opportunities offered by accessing the EAFRD program make the next session projects and the inclusion of other measures to be expected with lively interest by the public and private beneficiaries.
- The largest number of projects has been stored on the **112 measure** "*Setting up of*

*young farmers*", represented by 588 projects, of which only 3 have been completed. Also, a large number of projects was submitted on the **121 measure** "*Modernization of agricultural holdings*", consisting of 227 projects, from which only 185 eligible and 61 contracted.

- A small number of projects has been stored on the **125 measure** "*Improving and developing infrastructure related to the development and adaptation of agriculture and forestry*" consisting of 28 projects with only 7 eligible, 4 contracted and none yet completed and also on the **313 measure** "*Encouraging tourist activities*" and the **322 measure** "*Renovation and development of villages, improving the economy and basic services of the rural population and increasing the value of the rural heritage*" where 3 out of 43 projects were contracted and 10 out of 54 submitted.

We conclude by stating that even if a large number of projects were submitted to the COPRDF Arad - 11655 projects, from which only 392 were contracted and a smaller amount - 57 projects were financed and completed on all PNDR measures enrolled in the 2007-2010 period.

## REFERENCES

- [1] Mateoc-Sîrb, Nicoleta, Man, T.E., (2007), *Dezvoltarea rurală și regională durabilă a satului românesc*, Editura Politehnica, Timișoara;
- [2] Otiman, P.I., coordonator și alții, (2006) *Dezvoltarea rurală durabilă în România*, Editura Academiei Române, , București;
- [3] \*\*\* - Programul Național de Dezvoltare Rurală 2007-2013
- [4] \*\*\* - - INS – Anuarul Statistic al României, 2009.
- [5] \*\*\* - Oficiul Județean de Plăți pentru dezvoltare Rurală și Pescuit Arad;
- [6] www.apdrp.ro

## STUDY ON INCREASING VEGETABLE PRODUCTION IN THE REGIONAL ASPECT

Elena TIMOFTI<sup>1</sup>, Maria COJOCARU<sup>2</sup>

<sup>1</sup>Moldova State Agricultural University, 44, Mircesti street, MD-2049, Chisinau, Republic of Moldova, phone (+37322432088), e-mail: [elenatimofti@rambler.ru](mailto:elenatimofti@rambler.ru)

<sup>2</sup>Moldova State University, 60 Mateevici A. street, MD-2009, Chisinau, Republic of Moldova, phone: +37322577460, e-mail: [mcojocaru73@rambler.ru](mailto:mcojocaru73@rambler.ru)

*Corresponding author* : [elenatimofti@rambler.ru](mailto:elenatimofti@rambler.ru)

### *Abstract*

*The purpose of this work consists in analyzing the intensity level and economic efficiency of vegetable production intensification of production in the regional aspect. For this was used the system of natural and value indicators calculated in the average of the years 2006-2009 based on data of agricultural enterprises. For to achieve the goal were used the main economic statistics analyze methods that: monograph, observation, grouping, method of tables, method of medium and relative sizes. The research results demonstrate that the potential of resources in agricultural enterprises in Republic of Moldova have been used inefficiently and the produce of vegetable production is done by extensive way.*

*Keywords*: intensity, intensification, efficiency, resources, yields

### INTRODUCTION

Basic branch of the agricultural sector remains to produce the vegetable products, whose value (in comparable prices of year 2005) constituted in 2008 67-74% of the value of agricultural production and is developing further in a particular rhythm according to market demands. In year 2008 the value of agricultural production in Republic of Moldova increased compared with 2007 with 5,8%. The share of agricultural global production by ownership shows a reduction in public sector and an increase in private sector in relation with 98,9 % and 1,1% [1, page 32]. One of the basic conditions of stability and maintaining a high level of growth rates, of economic efficiency, of vegetable production is passing to intensive development of production.

### MATERIAL AND METHODS

The research data were developed from the Statistical Yearbook, specialized forms of agricultural enterprises. As research methods were used: monographic method, method for allocating groups of firms in accordance with the regions of development from Republic of

Moldova, table method, average size method, relative size method, etc.

### RESULTS AND DISCUSSIONS

Intensification, as a form of expanded reproduction in agriculture, represents a process of increasing social and economic volume, of quality and production efficiency based on application of new technologies and techniques, of progressive forms of work organization and management in production. For to produce of any vegetable production is needed the following resources: land, labor, materials. Intensive path of development contributes to the continue growing of crops productivity and allows more efficient use of land.

Intensity reflects the degree of assurance of the production process of vegetable production with material resources, labor and necessary financial resources. In other words, the intensity level is the criterion that can determine the possibilities of reforming of

production process and thus increasing the economic efficiency [2, page 96-97].

For to determine the intensity of production process it uses a system of values and natural indicators, such as: value of fixed assets used in production and consumption value of production in plant growing in calculation per 1 ha of agricultural land, that the dynamics of the years 2001-2009 increased from 3873 lei/ha up to 6140 lei/ha, that with 58% and from 1063 lei/ha up to 1971 lei/ha respectively.

The level of intensity in plant growing can be appreciated after living labor consumption per unit of land area. In connection with the lack of data on business firms in specialized forms of work related to consumption in man/hours, for to calculate this indicator was used the data on labor remuneration fund on 1 hectare of agricultural lands, has increased by 30.6% and in 2009 was 730 lei/ ha.

In determining the intensity level of the plant growing an important place goes to the natural indicators. Number of tractors per 100 hectares of agriculture area has declined in recent years from 1.5 physical units to 1.1 physical units, that is approximately 20-27% and potential energy that returns to on 1 hectare of arable land and the perennial plantations decreased by 17-30%. As mentioned that the insurance level with energy in 2004-2006 to level of 2, 5 -2, 8 horsepower is due to the fact that concomitant with 177 technological stations organized in the republic has been acquired 7000 technical units (tractors, automobiles, electric motors, etc.).

Analysis of the level of intensity of plant growing sector in the regional plan demonstrates that the highest level possess the enterprises of Chisinau municipality, followed by Central and South regions (Diagram 1).

Results of activity from the plant growing sector can be improvement of agricultural enterprises increasing the fertility of agricultural land by rational introducing of chemical and organic fertilizers, using irrigation systems.

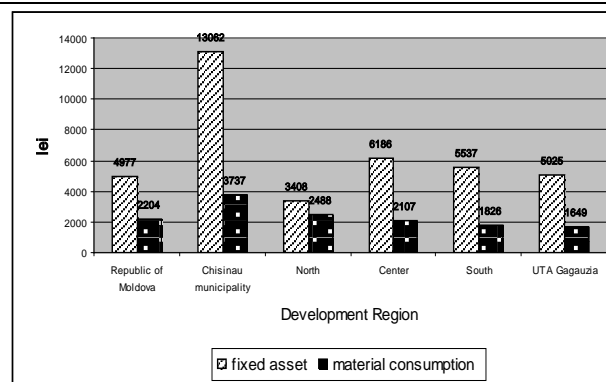


Diagram 1. The level of fixed asset value of agricultural production and material consumption from plant growing in the calculation per 1 ha of agricultural land.

Consumption of natural and chemical fertilizers per 1 ha of arable land and perennial fruit plantations in the environment on agricultural enterprises is 278 lei per 1 ha, with a variation in territorial profile. So, for example, enterprises in the Northern region has a level indicator 366lei/ha, but in UTA Gagauzia only 168lei/ha. Loss of soil fertility through agro-technical requirements failure, failure of agricultural science recommendations, incorrect use of agricultural land lead to net role and significance of the main factors of production.

Table 1. Natural indicators of the level of intensity in the plant growing sector in the agricultural enterprises in regional profile in the Republic of Moldova

Development Region	Per 100 ha of agricultural land		Coverage energetic in calculation on 1 ha of agricultural land, horsepower
	Annual average number of employees, people	Tractors, physical units	
Republic of Moldova	8	1,2	2,1
Chisinau municipality	13	1,5	1,9
North	8	1,1	2,1
Center	9	1,3	2,4
South	8	1,3	2,3
UTA Gagauzia	7	1,0	1,6

The data table shows that on average in agricultural enterprises from the republic to 100 ha of agricultural land back 8 employees and 1,2 tractors, in EU countries back 9 units. In the regional profile is not a big difference,

except Chisinau municipality where these indicators are taller.

Appreciation of intensity level can be made only in comparison, researching and forcing the yields of resource potential.

Analysis using the rate of increase (decrease) the average annual growth of value indicators, which characterize the economic efficiency of crop production intensification production shows that in the period average 2001-2009 the yields of agricultural land, of productive fixed assets with agricultural use and of material consumption decreased respectively: 4%, 8% and 9,7%. Human potential yield (labour productivity) increased with 9,8% but this was not on account of efficient use of resource potential, but on account of reducing the number of staff in the plant growing sector from 128,1 thousand of people in the 2001 till 56,2 thousand in the 2009, which is more than 2 times. The change in the dynamics of yield of agricultural land calculated on the basis of sales revenue and of earned income from sale of vegetable products shows that the first tends to increase in average annual 5,8% and the second decrease with 9%. It is clear up by the fact that the increase in sales revenue was based on the annual increase selling prices of 1q of sold products, and to reduce the profit calculated to 1 ha of agricultural land influenced the trend of increasing sales at an average cost 7,5%, that in annual average in the investigated dynamics the rising of cost of sales exceeded the revenues level obtained from sales.

## CONCLUSIONS

1. In the dynamics of the years 2001-2009 in the agricultural enterprises the natural and value indicators characterizing the level of intensity of plant growing sector recorded growth trends;

2. The highest level of production intensity of plant growing sector returns to the agricultural enterprises from Chisinau municipality, followed by Central and Northern development regions;

3. Economic efficiency indicators of intensification in the dynamics of the years 2001-2009 tend to decrease, except for labor productivity;

4. Potential resources in the agricultural enterprises of Republic of Moldova were used inefficiently;

5. Production of vegetable production is done by extensive way;

6. Insufficient are implemented the technical progress achievements, advanced technologies, irrigation systems, fertilizers etc.

## REFERENCES

- [1] Statistical Yearbook of Republic of Moldova – Chisinau: Statistics, 2009, 576p.
- [2] Elena Timofti. Intensive Agriculture and efficiency based on the rational exploitation of resource potential. Agricultural Science, No.2, 2008, 100p.

## FEATURES OF REALISATION OF AGRO-INDUSTRIAL INTEGRATION IN MOLDOVA

**Ludmila TODOROVA**

Agrarian State University of Moldova, Chisinau

42 Mircesti, sector Rascani, MD-4224, Chisinau, Republic of Moldova, Phone: +373 22 432387,

E-mail: tsg17mli27@mail.ru

### *Abstract*

*Agro-industrial integration represents a common phenomenon in contemporary agrarian economy in developed and developing countries. To assess the current stage of development of agriculture is important to analyze in detail the form of manifestation and the level of agro-industrial integration in the country, to track trends of changes in the parameters of volume and structure of agricultural production, as well as its level of effectiveness. Integration is regarded as a qualitatively new level of agricultural development that has engulfed all aspects of modern agriculture: production, exchange, economic relations. This involves not only the breadth of the phenomena, but also about the quality of their depth. Agro-industrial integration is immanent expression in the formation of macroeconomic agro-industrial complex, which occurs through a process of integration of agriculture and industry. Agro-industrial integration is the content of formation process of agricultural and agro-industrial production. And the emergence of agriculture is economic and legal registration of the gradual development of agro-industrial integration.*

**Key words:** *agro-industrial integration, agricultural production, processing industry.*

### INTRODUCTION

First of all, we need to understand what the agro-industrial integration is, what is the content of this economic process. From the outset, it should be noted that the need to link agricultural and industrial production is associated with increased levels of socialization of production. Agro-industrial integration is a common phenomenon in contemporary agrarian economies of developed and developing countries. In modern conditions the decisive role in developed countries plays financial capital. In agriculture of several countries, mainly in Western Europe, an important role plays agricultural cooperation. Agriculture of developed countries differs by the predominance of commercial agriculture. It develops on the basis of mechanization, use of chemicals manufacturing, biotechnology and advanced breeding techniques.

### MATERIAL AND METHOD

The object of research is the process of agricultural integration and its influence to the

current conditions of the agricultural production in Moldova.

To study the phenomenon of agricultural integration have been studied the scientific works of specialists in this field, as well as statistical data about processing of raw materials, production, distribution and sale of agricultural and food products in the country. In addition, we have used the following modern methods of economic research: a comparative, historical, statistical and economic.

### RESULTS AND DISCUSSIONS

Higher synthesis - the union of agriculture and industry do not arise and is not achieved automatically.[2]. For this, the following terms and conditions are necessary:

- A high level of development of productive forces and production relations;
- A high degree of social division of labor;
- Industrialization of agricultural production;
- Deepening of specialization and increasing of level of concentration of agricultural production;



- Broadening and deepening of inter-farm co-operatives;

- Initiation and development of production and economic links between agriculture and industry in the form of agro-industrial integration.

Republic of Moldova, not having the outlet to the sea, is rich in agricultural resources. Agriculture and processing of agricultural products occupy about 30% of gross domestic product of the country. The automotive industry accounts for 40% of employment and 60% of exports of the country. The need for agro-industrial integration in the Republic of Moldova is determined by the requirements of rational use of scarce economic resources, both in agriculture and in industry.

Table 1. Main indicators of agricultural enterprises

Data	2005	2006	2007	2008	2009
Number of farms	1524	1522	1528	1573	1620
The annual average number of workers (thousands)	115,0	95,7	82,1	74,2	66,9
Basic production funds for agricultural purposes (million MDL lei)	4262	4639	4708	5355	6084
The number of unprofitable farms	739	759	634	552	884
The wage fund (million MDL lei)	737	759	722	920	841
The average monthly salary (lei MDL)	534	607	732	1034	1048

Source: National Bureau of Statistics of Moldova

Analyzing the data in the table, we can conclude that in 2009 most of the indicators were increased, albeit marginally. The number of farms has increased by 3%, while the number of workers in agriculture declined by approximately 10%.

This chart shows how much increased performance of the enterprise during the period from 2005 to 2009. And from 2005 to 2007 increase in the fixed assets of the agricultural enterprise varies from year to year. From 2005 to 2006 increased more sharply than in 2007. The same trend is observed from 2007 to 2008 and 2009, which is noticeable that the last increase in the analyzed period, more intense than in the previous period.

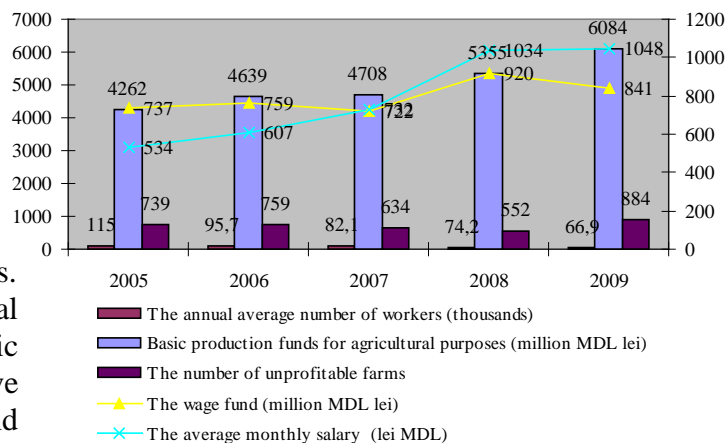


Fig.1. Histogram of main indicators of agricultural enterprises

Grew well and the basic production assets and the average monthly wage. The increasing the number of unprofitable enterprises in this period is associated with the difficult economic and political situation in the country. In agriculture, the integration can improve production efficiency through solutions based on it the following problems:

- *the impact of soil and climatic conditions on the reproduction process in agriculture is smoothed.* In this industry, we have the intertwining of natural and economic processes;

- *more rational is used of constant capital, operating in agriculture.* In this industry, the production time is substantially longer than working period. Therefore, cars, tractors, farm equipment is used uneven during the year, by the seasonal work. In the agro-industrial integration means of production are used more evenly during the year;

- *The manpower is used more efficiently.* The agriculture is characterized by seasonality in the use of labor. Agro-industrial integration allows to transfer between agricultural and industrial production of human resources and the means of production in times of greatest need.[3]

The necessity of agro-industrial integration is objectively due to development needs of industry also. Here, on this basis can more effectively be accomplished the following tasks:

➤ *needs of the processing industry for raw materials are fulfilled more completely.* Agro-industrial integration creates the opportunity to achieve continuity of supply of raw materials;

➤ *industrial wastes are used more rationally.* Here in the agro-industrial integration should be included the possibility of obtaining of additional forage, additional fertilizers, recycling of wastewater of sugar mills and turning them into food;

➤ *Manpower is used more efficiently in the industry.* Processing industry as well as farming, works according to different seasons of the year. On the basis of agro-industrial integration we can reallocate labor and capital goods from the processing industry to the agriculture.[4]

Like and any form, AIC is playing an active role in developing of the content of agricultural production. However, it is important to emphasize that the form only fixes the existing material content. You cannot really slow down the execution of an integrated agro-industrial production. But we cannot get ahead of ourselves, artificially creating a form of agriculture where the agro-industrial integration has not started yet, where appeared the material prerequisites and conditions for it. [1]

The main directions for the development of integration at the regional level, based on the assessment, the current situation, is as follows [2]:

➤ development of theoretical frameworks and refinement of methodological approaches of integration in the agricultural production;

➤ creating of optimal organizational and economic conditions for the integration units functioning;

➤ improved forms of integration in agriculture;

➤ working out of the mechanisms of formation and functioning of enterprises during the integration at the district and regional levels;

➤ enhancing the role of integration that ensures the rational use of productive resources and income distribution.

One of the factors in the development of agro-industrial integration in Moldova should be a privatization of processing enterprises with the transfer of controlling interest to agricultural producers to improve the manageability of their activities with regard to the interests of the village. At present, there is the following situation in production of enterprises of different ownership forms:

Table 2. Gross agricultural output by ownership

Forms of property	2005	2006	2007	2008	2009
Total(million lei)	12402,2	12266,7	9432,5	12460,3	11259,5
Including:					
• public	117,4	106,5	74,9	137,2	61,8
• private	12284,8	12160,2	9357,6	12323,1	11197,7
Including:					
Collective	3508,0	3359,1	2589,6	4311,1	3373,1
Households and farms	8776,8	8801,1	6768,0	8012	7824,6

Source: National Bureau of Statistics of Moldova

Data from the table indicates that in agricultural production dominates products produced by private enterprises, the value of the cost of which varies from year to year. So, in 2009, the collective and farms had been produced goods to 11197.7 million lei, which is below the 2008 level to 90.87%. This trend is due to the overall decline in production in the country as a consequence of the international financial - economic crisis.

In addition, it is necessary to consider the situation in the field and in the European Union, given the political orientation of Moldova for European integration. Given the long experience of agricultural production in European countries, they have reached a sufficiently high level of development and the interweaving of agricultural and industrial production.

The European experience of agricultural integration to help our country on the path to more efficient production in agriculture and in industry.

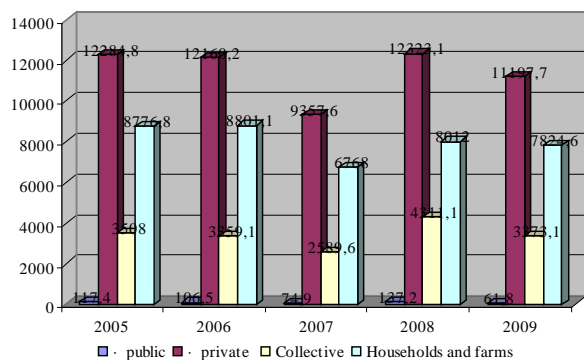


Fig. 2. Histogram of gross agricultural output by ownership

This chart shows the level of production of Moldavian enterprises of different ownership forms, as well as fluctuations in over the years in the analyzed period. It is worth noting that the production of private enterprises over the public sector, although this figure fell to 2009 compared with 2005 by 8,8%.

At the same time significantly reducing the production of state-owned enterprises and collective farms in 2009. This period is characterized by a general decline in production in both the private and public sector by 9% and 55% respectively.

Timeliness of payments and unilateral approach to setting of prices for the products and services provided by the processing and service enterprises had accelerated the development of negative trends. All this don't contribute to the establishment of equal relations between agricultural producers and enterprises in the processing, servicing and trading finished products.

However, the agro-industrial integration is not receiving proper development, and the proportion of agro-industrial units in volumes of production, processing, marketing, service delivery remains low.

Low-level indicators of co-operation and integration of agricultural producers in many respects is due to the following reasons [4]:

- the general state of crisis, typical for the country economy as a whole;;
- inefficient monetary and fiscal policies;
- insufficient state support;
- imperfection of the legal and regulatory framework of agro-industrial integration;

- underestimation of agricultural producers to the benefits of co-operation and development of integration processes;

- weak organizational and outreach efforts of government agriculture and local government agencies.

As a result, many of the problems that are resolved all over the world through co-operation and integration of agricultural producers and processors is not effectively in Moldova.

## CONCLUSIONS

In these circumstances is required a complex of actions, most important of which is to overcome the antagonism between the interests of agricultural producers - on the one hand, and between the processing and service enterprises - on the other hand, by developing their cooperation and integration on mutually beneficial terms with the provision of certain priority to rural producers because of their leading role in the cycle of food production. Main goal is better use of powers, overcoming the local monopoly in the field of processing, servicing and trading, as well as providing opportunities for increased investment.

Accelerated development of integration in the agricultural sector at the present stage is the main direction of economic stabilization of agricultural production, an additional factor in increasing productivity, the guarantor of social stability.

## REFERENCES

- [1] Adizes I.K., 2009, Integration. Survive and become stronger in times of crisis, Alpina Publishers, Moscow, 35-39.
- [2] Lipsits I.V., 2006, Economy, Omega – L, St. – Petersburg, 57-59.
- [3] Savchenko P.V., 2005, National Economy, Economist Ltd, Moscow, 83-89.
- [4] Tumanova E.A., 2011, Macroeconomics, Infra – M, Moscow, 123-127.
- [3] Biroului Național de Statistică al R. Moldova, 2005-2010, <http://www.statistica.md>

## RESIZING OF REAL LABOUR FORCE IN RURAL AREAS IN THE CONTEXT OF OCCUPATIONAL MOBILITY. ROMANIAN CASE STUDY

Monica Mihaela TUDOR

Institute of Agricultural Economics – Romanian Academy, Bucharest, Casa Academiei, Calea 13 Septembrie, 13, B Building, 5<sup>th</sup> Floor, District 5, 050711, Bucharest, Romania, Phone/Fax: +40 21 318 24 11, E-mail : monik\_sena@yahoo.com

*Corresponding author* : monik\_sena@yahoo.com

### Abstract

*The size and characteristics of the labour force in rural areas are conditioned, besides other factors, by the phenomenon of temporary occupational migration. The occupational migration (both in Romania and abroad) of the population with the domicile in the Romanian rural area has many and deep economic and social implications. This phenomenon extracts a significant part of population from the rural labour market which, potentially, could offer their labour force. The size of the circulatory migration phenomenon for work – both in Romania and abroad – results in a significant decrease of the active population that effectively supports the labour force supply at a certain moment, in a certain rural area. An estimation of the real available active population on the basis of the data from the survey conducted September 2009 under the project CAPACITIES -DALFI [1] reveals that in total active population with the domicile in the 4 communes from the sample, only 37.7% is permanently present in the commune and effectively supports the labour force supply at commune level.*

**Keywords** : rural economy, labour force, occupational migration, Romania

### INTRODUCTION

The external migration flows for jobs from CEE countries to West European countries are motivated, on one hand, by the lack of occupational alternatives in the origin countries, and on the other hand by the significant differences between the labour remuneration in the origin countries and the West-European countries, as main destinations of the circulating migration flows. The job deficit in the CEE countries is much stronger in the rural areas, so that the pressure upon the occupational migration is greater with the active population in these areas. This phenomenon extracts a significant part of population from the rural labour market which, potentially, could offer their labour force. In this context, our studies propose the development of a **model** for measuring the **real disposable labour force** size in the rural area.

### MATERIAL AND METHODS

**ACTIVE POPULATION from the economic point of view** (according to Labour Force

Survey - LFS) *includes all active persons whose usual place of residence is in a certain*

**ACTIVE POPULATION (LFS) =**  
Employed population + The Unemployed ILO

*territory, who supply labour for the production of goods and services during the reference period, regardless if they are working away for less than 6 months.*

But not all the active persons at a certain territory (according to LFS definition) are effectively available to respond to the labour force demand from the local/regional economic operators, as part of the active population is working:

- on daily, weekly commuting basis in other locality from the country
- on the basis of contractual arrangements shorter than 6 months in a foreign country.

So, the persons of working age, resident in Romania, but who left to foreign countries for less than 6 months, are registered in the active population category in Romania

The persons of working age, resident in the (rural) locality X, are considered as local

labour force even though they carry out their activity in other (urban or rural) locality.

By DALFI project, we propose a new statistical methodology and indicator that estimates the **REAL ACTIVE POPULATION from economic point of view**, that force which is available for entrepreneurs and their plans.

**REAL ACTIVE POPULATION from the economic point of view (DALFI definition Proposal) includes all active persons whose usual place of residence is in a certain territory, who supply labour for the production of goods and services during the reference period and non-resident active population who supply labour in the certain territory in the reference week for less than 6 months**

**REAL ACTIVE POPULATION (DALFI) =  
ACTIVE POPULATION (LFS) -  
- active resident population who supply  
labour in other territory (commune, town or  
abroad) in the reference week +  
+ non-resident active population who supply  
labour in the given territory, in the  
reference week**

The conclusions of the present study are a result of a qualitative and quantitative analysis based on the primary data resulting from a field survey in 4 representative communes from the point of view of the experience in migration [2].

## RESULTS AND DISCUSSIONS

At present, 2.5- 2.7 million Romanians are on the territory of other EU Member States (according to the OECD International Migration Outlook, 2010 [3]). Out of these, the studies indicate that 50% of the Romanians who migrate for work come from the rural areas (according to the estimations of the Applied Economy Group – Romania [4]). About 4.5 million active people have the domicile in the rural areas in Romania [5]. **Hence, about 1/3 of the active population is working abroad.**

In the areas of origin of the migratory flows, the dislocation of the labour force generates a diminution - temporary diminution or for variable periods of time – of the disposable

labour force; in the areas of destination, it results in an increase of the available labour force. **That fact shifts the equilibrium point on the labor markets in both regions mentioned above.**

The size of the circulatory labor migration for work – both in the country and abroad – results in a significant diminution of the active population, which effectively supports the labor force supply at a given moment (the reference week) in a certain rural area. A first simplified evaluation of the DALFI estimated REAL ACTIVE POPULATION, on the basis of data from the field survey conducted in September 2009, reveals that out of total active resident population in the 4 pilot communes, only 37.7% are permanently present in the commune and offer their services on the local labor markets.

At the same time, other 30.4% of the active population, with residencies in the investigated communes also works in other localities from Romania, being largely included in the daily commuting flows to their working place. The share of the active rural population included in the circulatory migration flows for work to foreign countries amounts to 31.9%, most of them having occupational arrangements longer than 6 months.

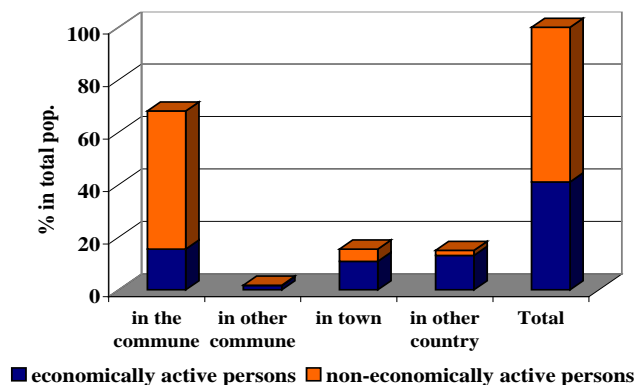
The analysis of the active population structure, on the basis of data from the field survey, draws the attention on the need to revise the statistical indicators with regard to the calculation of labour force indicators in the Labour Force Survey, due to the impact that the circulatory migration for work has upon the actual available labour force.

The brief analysis of the external migration flows for work and of its economic consequences reveals several aspects:

- generally spiking, in the Romanian villages are permanently presents, more non-economically active persons that economically active persons
- in the structure of rural population involved in circulatory migration to foreign countries, it is the young active population that prevails;
- the largest part of the rural population included in the circulatory migration flows for work has better education and qualification.

**Who left, who remained in the village?**

Structure of the population from sample by the participation to the economic activity reveals that 77% of the persons that are permanently present in the villages of residence are included in the category of non-



economically active population (pensioners, children and other inactive persons).

Figure 1: Structure of the population from sample by the participation to the economic activity and by the place of activity

Source: Project Capacities – DALFI 200 / 2008, field studies in 4 representative communes, by the intensity of experience in the external migration - September 2009.

Due to the lack of job opportunities at local level, the economically active persons, resident in the rural communities, are involved in occupational arrangements in other locality from Romania (generally, a town) or in foreign countries.

**In general, the younger population of working age (15 – 44 years) opt for the occupational migration solution (Fig. 2).**

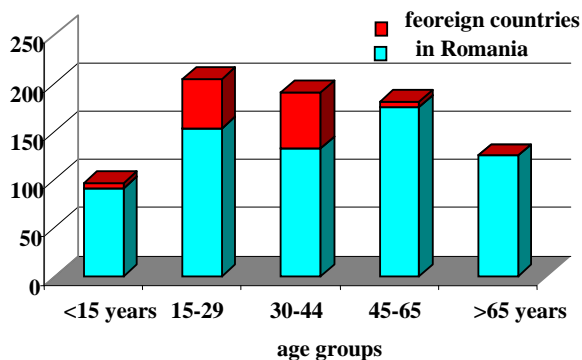


Figure 2. Structure by age of the rural population in the sample by the place where they work (in Romania or abroad)

Source: Project Capacities – DALFI 200 / 2008, field studies in 4 representative communes, by the intensity

of experience in the external migration - September 2009.

The structure of persons who were abroad in the reference week in the pilot communes included in the field survey was dominated by active persons aged 15 – 44 years, distributed as follows:

- 15% of the population under 15 years old;
- 20% of the population of working age (15 – 65 years) out of which: 25% of the rural population in the age group 15 - 29 years; 30% of the rural population aged 30 – 44 years; 3.3% of the adult population aged 45 - 65 years.

**The largest part of those who leave to work abroad having an educational level above the rural average (Fig. 3).**

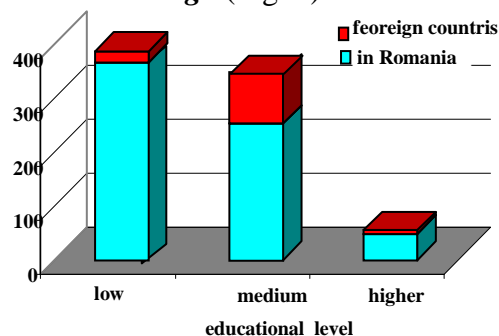


Figure 3. Structure by educational level of the rural population in the sample by the place where they work (in Romania or abroad)

Source: Project Capacities – DALFI 200 / 2008, field studies in 4 representative communes, by the intensity of experience in the external migration - September 2009.

The structure of persons with the domicile in the pilot communes who were abroad in the reference week:

- 5.4% of the population with low educational level;
- 27.1% of the population with medium educational level;
- 12.2% of the population with high educational level.

**CONCLUSIONS**

The data from the field survey conducted in September 2009 on certain representative samples of holdings in four Romanian communes reveal the fact that the access on the labor markets of other countries

substitutes the employment in agriculture of the rural active population belonging to the age groups 15 - 34 years. The rural population's reaction to the low job supply in the rural area is the *territorial mobility* of the labor supply to those areas where the business environment is more developed and the labor market is functional. The men and the women from the rural active population are equally included in the migration flows to work abroad.

The size of the circulatory migration phenomenon for work – both in Romania and abroad – results in a significant decrease of the active population that **effectively** supports the labor force supply at a certain moment, in a certain rural area. A simple estimation of the real available active population on the basis of the data from the survey conducted in September 2009 under the project DALFI reveals that in total active population with the residence in the 4 communes from the sample, only 37.7% is permanently present in the commune and effectively supports the labor force supply at commune level (Table 1).

Table 1. Structure of population of working age by the place of activity

<b>Active population with the residence in the communes included in sample, out of which:</b>	100	100	100
- % of active persons permanently present in the commune	37.7	37.7	37.7
- % of persons working in another commune	4.0	4.0	-
- % of persons working in another town	26.4	26.4	-
- % of persons working in a foreign country under occupational arrangements shorter than 6 months	4.6	4.6	-
- % of persons working in a foreign country under occupational arrangements longer than 6 months	27.3	-	-
<b>Active population with the residence in the communes included in sample</b>	<b>100</b>	<b>out of which</b>	<b>:</b>
<b>Total active population according to LFS definitions</b>		<b>72.7</b>	
<b>REAL ACTIVE POPULATION (DALFI) at commune level</b>			<b>37.7</b>

Source: Project Capacities – DALFI 200 / 2008, field studies in 4 representative communes, by the intensity of experience in the external migration - September 2009.

At the same time, other 30.4 % of the active population with the domicile in the investigated communes is working in other localities in the country, being included on a

large scale into the daily commuting flows to work. The share of rural active population included in the circulatory migration flows to work abroad reaches 31.9%, the largest part of it having occupational arrangements longer than 6 months.

The analysis of the active population structure on the basis of the data from the field survey highlights the need to revise the statistical indicators regarding the calculation of labor force indicators in the **European Union Labor Force Survey (EU-LFS)** due to the impact that the circulatory migration to work has upon the real available labor force.

The utility of the revision is obvious:

- the present indicators estimating the labor force cannot fully reveal the implications of the *occupational migration flows* upon the labor force that a region effectively has at its disposal at a certain moment. There are two main parts involved in this calculation: the area of origin and the area of destination of circulatory migration for work. *In the areas of origin of the migratory flows, the dislocation of the labor force generates a diminution - temporary diminution or for variable periods of time – of the real active population; in the areas of destination, it results in an increase of the available labor force. That fact shifts the equilibrium point on the labor markets in both regions mentioned above.*

- our results, after the survey conducted in four communes in 2009, underline the hypothesis that the reality is different than in statistics. The discrepancies between the data available from **EU-LFS** and the results of the survey done under the DALFI Project are huge. That is why the estimation of the real active population is necessary and the present statistics must be updated with new indicators and methods:

- The need for the scientific substantiation of the statistical measurement methodology of the actual available labour force

- The detailed study of the characteristics and size of the actual available labour force in the rural area.

## ACKNOWLEDGEMENTS

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## REFERENCES

- [1] PN II - Capacities Project (DALFI, 2008-2010), no. 200/2008 (Coordinator: IAE, Bucharest; Partners: ICES "Gh. Zane" Iasi; USAMVB, Timisoara; Pitesti University)
- [2] Field surveys in 4 representative communes from the point of view of the experience in migration abroad – September 2009 - Commune Banloc, county Timis, commune Stalpeni, county Arges, commune Sohatu, county Calarasi, commune Sabauani, county Neamt
- [3]\*\*\*OCDE(2010) International Migration Outlook, [www.oecd.org/dataoecd/6/13/45629644.pdf](http://www.oecd.org/dataoecd/6/13/45629644.pdf)
- [4] [www.muncainstrainatate.anofm.ro/aderarea-la-uniunea-european-n-beneficiul-tuturor](http://www.muncainstrainatate.anofm.ro/aderarea-la-uniunea-european-n-beneficiul-tuturor)
- [5]\*\*\* INS (2010) Forta de munca in Romania. Ocupare si somaj



## IMPROVEMENT AND DEVELOPMENT OF AGROTOURISM IN THE NEAMŢ COUNTY - ROMANIA

Nicolae-Gabriel URSUIANU<sup>1</sup>, Manea DRĂGHICI<sup>1</sup>

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine, Bucharest  
59 Mărăşti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232,  
Fax: + 40 21318 28 88, E-mail: dmprofesor@yahoo.com

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine, Bucharest  
59 Mărăşti, sector 1, 011464, Bucharest, Romania, Phone: +40 0764 537 237,  
E-mail: gabicove2002@yahoo.com

**Corresponding author** : dmprofesor@yahoo.com

### Abstract

*The paper examines the evolution and development of agrotourism in the Neamţ County. The following indicators were considered and analyzed: tourist reception, accommodation capacity, the number of tourists accommodated, accommodation capacity depending on the type of tourist reception and classification category and number of nights. Thus, it appears in 2001-2006, an increase in tourist accommodation structures, from 11 to 48 guest houses, from the total in the Neamţ County. Accommodation capacity has also grown to a total of 742 rural guest houses, and the number of accommodated tourists increased to 17537 people in 2006. It analyzes the ways of implementation of the local Plan for sustainable development for 2007-2013 in the Neamţ County.*

**Keywords:** agrotourism, rural house holds, egg production, local Plan for sustainable development in Neamţ County.

### INTRODUCTION

Located in the north-eastern Romania, Neamţ County has tremendous tourism potential and rich diversity represented by the geographical landscape, ethnographic and folkloric elements, originality by cultural and religious historical sights, the weather resorts and spas but also by all the developing agrotourism in these regions in recent years [1].



Photo 1: Romania – Neamţ County



Photo 2: Melania guesthouse (Vaduri – Bicaz, Neamţ County)

On improvement and development of rural tourism is an increase of accommodation as well as the number of tourists from Neamţ county agrotourist guesthouses [2]. In this respect, the paper provides an analysis of the evolution of agrotourism in Neamţ County, in order to highlight the increasing tourist accommodation, the number of tourists accommodated and the number of nights spent during 2001-2006 [3].

## MATERIAL AND METHODS

The following indicators were used: the tourist reception with functions of tourist accommodation, tourist accommodation capacity, guests stay in tourist reception with functions of tourist accommodation by type of structure, tourist accommodation capacity, the types of structures for tourists reception with functions of tourist accommodation and classification categories during January to September 2007, the number of overnight stays in tourist reception with functions of tourist accommodation by type of tourist accommodation structures and categories and classification in the period 01/01 to 30/09/2007 and net use indications of places of accommodation, by type of tourist accommodation structures with functions of tourist accommodation and classification categories in the period 01/01 to 30/09/2007. The average annual growth was calculated,

$$r = \sqrt[n]{\prod (p1/p0)} - 1$$

where:  $\prod p1/p0 =$  chained growth indicators [4].

The period examined was 2001-2006 and 2007 for the last two indicators. Data collected from the County Council were statistically processed and interpreted on ways to implement a local plan for sustainable development for 2007-2013 in Neamț County.

## RESULTS AND DISCUSSIONS

For the analyzed period, 2001-2006, regarding the tourist reception with tourist accommodation service, we notice an increase in the number of rural and agrotourist guesthouses.

Thus in 2001 from the total number of tourist accommodation in Neamț County of 63 units, 11 were rural and agrotourist boarding houses, and in 2006 out of 103 tourist accommodation structures at the county level, 48 were rural and agrotourist hostels, which entails an average annual growth of 33.33% per year in the rural and agrotourist guesthouses (table 1).

Table 1: Tourist reception with functions of tourist accommodation - number of units -

Name	2001	2002	2003	2004	2005	2006	Rate (%)
County total: (of which)	63	64	76	78	94	103	9,76
Rural and agrotourist guesthouses	11	27	28	29	42	48	33,33

Fig. 1 shows the evolution of rural and agrotourist guesthouses in the analyzed period 2001-2006 for the Neamț County.

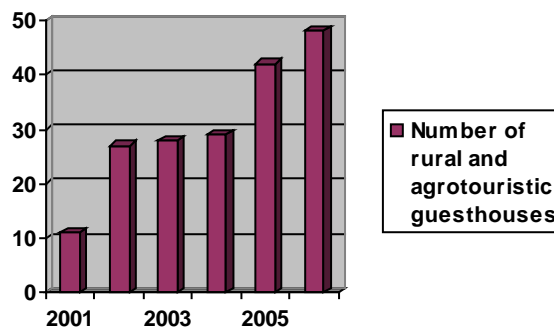


Fig. 1: Evolution of rural and agrotourist guesthouses in Neamț County during 2001-2006

Regarding the existing accommodation capacity - seats - in the period 2001-2006, we can also see a significant increase (Table 2). In 2001, from the total accommodation capacity of 2989 places, rural and agrotourist guesthouses held a number of 122, in 2006 this figure had increased significantly, reaching a total of 742 seats in the 4121 at the county level. Thus, we can see that the average annual rate increased with an average of 43.32% per year.

Table 2: Existing tourist accommodation capacity - places -

Name	2001	2002	2003	2004	2005	2006	Rate (%)
County total: (of which)	2989	3076	3482	3483	4045	4121	6,63
Rural and agrotourist guesthouses	122	291	341	343	645	742	43,32

Tourist accommodation capacity - seat-days - saw an improvement of almost nine times higher in the period under review. Thus in 2001 the capacity has reached 25,533 and 214,113 in 2006 (Table 3). When calculating average annual growth rate, it increased reaching a value of 50.53% per year for rural and agrotourist guesthouses.

Table 3: Running - places – days

Name	2001	2002	2003	2004	2005	2006	Rate (%)
Total: (of which):	733915	830515	1051884	1150550	1164661	1263552	9,50
In rural guesthouses	25533	58343	87699	95154	129102	214113	50,53

Regarding the number of tourists staying in tourist reception in 2001-2006, an increasing trend is also observed. In 2001 from the total of 98,932 tourists accommodated, a number of 920 were accommodated in rural and agrotourist guesthouses, but the highest value was reached in 2006, where from a total of 140,761 tourists accommodated, a number of 18 473 stayed in rural and agrotourist guesthouses. Thus, there is an annual average increase of 4.06% during 2001-2006 on the total number of tourists accommodated in the Neamț County, while the increase in the guesthouses has led to a value of 77.47%.

Related to the number of tourists in the country accommodated in these structures, we can also say that it increased, and the average annual rate reached 4.57% from the total number of tourists in the country and in the rural and agrotourist guesthouses the average annual growth was of 76.05%. Total tourist in the country accommodated in the Neamț County in 2001 was of 81,950, from which 870 accommodated in rural and agrotourist guesthouses; but most of the 2001-2006 figure is reached in 2006 by a number of 17 537 tourists from the country accommodated in rural and agrotourist guesthouses; from a total of 119,913 (table 4).

Table 4: Tourists staying in tourist reception with functions for tourist accommodation, by types of structures – people -

Name	2001	2002	2003	2004	2005	2006	Rate (%)
Total number of accommodated tourists of which:	98932	97092	110861	129300	117344	140761	4,06
In rural and agrotourist guesthouses	920	3623	5536	6314	11731	18473	77,47
Total number of accommodated tourists from the country of which:	81950	77296	89602	104833	93503	119913	4,57
In rural and agrotourist guesthouses	870	3395	4980	5936	10954	17537	76,05

Running tourist accommodation capacity of the accommodation tourism in January-September 2007 was of 960 507 seat-days, the average growth rate dropping by 42.94% per year, while in the rural and agrotourist guesthouses the value was of 192 553 seat days, and the average annual growth rate also decreased to 60.98% per year (table 5).

Table 5: Running tourist accommodation capacity, by type of tourist accommodation structures and classification categories in the period January-September 2007 - seats - days -

Types of tourist accommodation structures	Total	of total, by classification categories (margarete)				Rate (%)
		4	3	2	1	
Total	960507	13234	391985	331335	86044	- 42,94
Rural and agrotourist guesthouses	192553	5044	80418	101459	5632	- 60,98

Another indicator taken into consideration is the number of overnight stays in tourist reception structures with functions of tourist accommodation and classification categories. The analyzed period is 01/01 to 30/09/2007. During this period the highest value of 103,147 was met at two-star guesthouses for the Romanian tourists, while the lowest value of 213 was met among foreign tourists for 4-star category guesthouses.

We can see a decrease in annual growth for all three types of tourist accommodation structures. Thus we can say that the annual rate decreased by 44.49% per year on the total number of overnight stays, with 46.68% for Romanian tourists, and also the annual rate of foreign tourists decreased by 49.77% per year (table 6).

Table 6: Overnight stays in tourist reception with functions of tourist accommodation by type of tourist accommodation structures and categories of classification, from 01/01 to 30/09/2007 - Number of overnights -

Types of tourist accommodation structures	Total	Of the total, by classification categories (margarete)				Rate (%)
		4	3	2	1	
Total number of overnights (of which):	265070	4697	99292	109909	27859	-44,49
Romanian tourists	227727	4484	69471	103147	27320	-46,68
Foreign tourists	37343	213	29821	6762	539	-49,77

Under the percentage ratio, indexes of net use of accommodation by type of tourist accommodation structures and categories of classification in the period 01.01 to 30.09.2007 have reached the highest value of 1 and 4 margarete (daisies). The predominant value of tourist and agrotourist guesthouses of 28,5% is met for the 4 margarete guesthouses, while the smallest share is held by the 2 margarete guesthouses with 13,7%. If we consider the average annual growth rate, we will see a decrease in the total number of types of tourist accommodation, while for the tourist and agrotourist guesthouses this rate has increased by a share of 19.87% on year (table 7).

Table 7: Ratios of net use of accommodation, by type of tourist accommodation structures with functions of tourist accommodation and classification categories, from 1.01 - 30.09. 2007 - percentage -

Types of tourist accommodation structures	Total	Of the total, by classification categories (margarete)				Rate (%)
		4	3	2	1	
Total (of which):	27,6	35,5	25,3	33,2	32,4	-2,75
Rural and agrotourist guesthouses	15,2	28,5	15,3	13,7	28,1	19,87

In figure 2 we can see the evolution of the percentage of accommodation depending on the type of classification for tourist and agrotourist guesthouses in the Neamț County during 01.01-30.09.2007

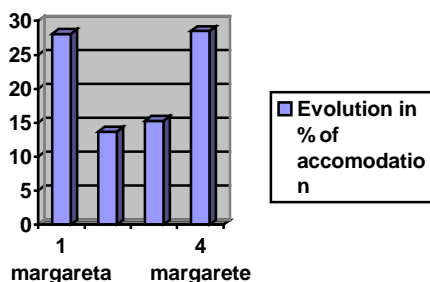


Figura 2: Evolution of the percentage of accommodation depending on the type of classification for guesthouses.

## CONCLUSIONS

1. The number of rural and agrotourist guesthouses during 2001-2006 increased from 11 to 48.

2. Existing tourist accommodation capacity evolved, ranging from 122 seats in 2001 to 742 seats in 2006.

3. The number of tourists accommodated in rural and agrotourism guesthouses has seen an improvement from 920 in 2001 to 18,473 in 2006.

4. Running tourist accommodation capacity of the tourism accommodation structures in January-September 2007 was 960 507 seats-days at the county level, while the tourist and agrotourist guesthouses held a number of 192 553

5. The largest percentage for tourist and agrotourist guesthouses related to accommodation seats, was held by 4-margarete category guesthouses.

## ACKNOWLEDGEMENTS

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## REFERENCES

- [1] Dan Ghinea, 2002, Enciclopedia geografică a României, Editura Enciclopedică, București, p. 868-874
- [2] x x x – Consiliul județean Neamț, Planul local de dezvoltare durabilă, 2008
- [3] x x x – Planului local de dezvoltare durabilă a județului Neamț pentru perioada 2007-2013.
- [4] Ceapoiu N. Metode statistice aplicate in experientele agricole si statistice, Ed.Agro-Silvica, Bucuresti 1968

## TRADITIONS AND CUSTOMS REGARDING ANIMAL BREEDING WITH MAJOR IMPACT IN RURAL TOURISM – STUDY REALISED IN VAIDEENI, CORBENI, RUCAR AND DOMNESTI VILLAGES

Julian VLAD<sup>1</sup>, Cristina (NEGRE) PÎRVULEȚ<sup>1</sup>, Marius MAFTEI<sup>1</sup>, Gheorghe SĂVOIU<sup>2</sup>, Mirela STANCIU<sup>3</sup>, Andi FIȚA<sup>4</sup>

<sup>1</sup>University of Agricultural Sciences and Veterinary Medicine, Bucharest, 59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, Fax: + 40 21318 28 88, E-mail: [vladiul@yahoo.com](mailto:vladiul@yahoo.com), [negre\\_cris@yahoo.com](mailto:negre_cris@yahoo.com), [mariusmaftei@yahoo.com](mailto:mariusmaftei@yahoo.com).

<sup>2</sup> University of Pitesti, Faculty of Economics, Pitesti, 110040, Pitesti, Targu din Vale, no.1, Arges County, Romania, Phone: +40 348-453100, Fax: +40 348-453123, E-mail: [gsavoiu@yahoo.com](mailto:gsavoiu@yahoo.com)

<sup>3</sup> „Lucian Blaga” Sibiu University, 41 Nicolae Teclu, 550200, Sibiu, Sibiu County, Romania, Phone: .0269 234 111, Fax: 0269 234 111, E-mail: [mirela\\_stanciu2008@yahoo.com](mailto:mirela_stanciu2008@yahoo.com).

<sup>4</sup> Sanitary Veterinary and Food Safety National Agency., 37 Dudului str., 060603, sector 6, Bucharest, Romania, Phone: : +40 0374 150 200, Fax: 021 312 49 67, E-mail: [andi.fita@yahoo.com](mailto:andi.fita@yahoo.com)

**Corresponding author:** [vladiul@yahoo.com](mailto:vladiul@yahoo.com)

### Abstract

*This study present the results of an ample research regarding customs, traditions and manners in animal breeding (mountain shepherded), with major impact in rural tourism and with capabilities in alternative programmes for occupation of rural mountain area, being in an increasing process of aging and inactivity. The authors option was to restricted initially to the wester Carpathian mountain village queen, Vaideeni area, at the foot of the mountain Roman's peak or Romanian's peak, but were useful in distinguishing replicated elements of rural tourism programs from Corbeni, Rucar and Domnesti mountain lands. Sociological research has focused on a semi-structured interview described in the summary section describing the material and method of investigation and the results discussion and conclusions are presented in specific sections. As a final remark we can see that occupational and traditional richness and diversity, religiosity and pastoral myth of rural mountain may reopen a Pandora's box, where budding hope of resurrection of the Romanian rural mountain tourism, invading fully objective and rational agro-tourism product, but also remnants of pastoral convoluted thinking time, which seems to have disappeared many decades from European tourist memory, but is a great cultural heritage and tourism value.*

**Keywords :** animal husbandry, traditional occupations, rural torusim , semi structured interview

### INTRODUCTION

Romanian mountain village has preserved even in troubling times, the character of ancient religion and mythology, with its own calendar in employment, traditionally the dominant influence of livestock. Pastoral transhumance space required and always requires a long culture, expressed in the same way, respectively in a frobenian or Spenglerian manner, tired of the same culture time employment, traditional, religiously twisted, mythological and protected and focused on a long extract from present or "suspended" pure and simple celebration. This

suspension is intended to balance celebration excessive spaciousness of transhumance, as very special and continuous effort of providing a support farming in rural tourism recovery.

Two trends stand out in a first analysis:

I. In the Western Carpathian mountain village there is a replication of the general trend mirrors the settlement transhumance in time and space of religious holidays (Christian), in close connection with the activities derived from shepherding the major occupation of the inhabitants, keeping alive a pattern of the traditional calendar, occupational, religious and mythical;

II. In the entire area beneath lands Fagaras be slightly further north or further south on the contrary, other local influences have given this special way of blending faith and mythology, pastoral occupations, a remarkable degree of specificity, especially in the holidays, regular party spirit so necessary to brief individual pastoral life.

Thus, during the traditional culture of the mountain village has become the valences of "living space" and can be captured only through a "living schedule," Mirror of traditional village life, as distinguished Ernest Bernea stratifications among the first in our culture time of this schedule, both over-time "holidays, and" extra time "or out of time, suspension of his time in moments of natural crossing, and recovery for forgetting, remembering to add" micro-time "traditional activities accomplished by calendar days, mansions and watches, wonderful lasting memory izvodire reflexive. "Calendar of Romanian peasant life as something living and organic does not come to measure amounts of time but the time comes to make a fleeting expression, walking time to give a face", becoming "the symbol of death and rebirth, and the order , push the leaf bud and give Bobu to bake ". [1] Of course, throughout this calendar was set and target research presented in this paper, regarded as an original source to be exploited particularly in rural tourism, as still today, to our deep astonishment, the Romanian mountain village peasant calendar is the point, ordinance, time allotment, "a calendar is the order of the time ... Without schedule, one would do in a way, one otherwise. A calendar month is all felu, if not like one another. Why do not you do Tuesday or Sunday in April to do in September. "[2] Microtime reflected in microcalendar who detaliat it, it is a knitting of days, mansions, hours and moments (so dear and close to the shepherds, who are accompanying their flock of sheep, in all that they are written and over all day, mansions , watches and moments that have been given). Romanian village during the live calendar that is both traditional and employment, mythological and religious, both on the outside, as long described as being from

within the peasant and that included time in the depths of his heart and of thought. Calendars are tools with which people in mountain villages have agreed the occupational with major ritms of nature to traditional religiosity, sacred and profane in ancient times until the recente. In parallel to the official calendar, recognized by church and state, Romania has survived an unofficial timetable, calendar ethnologists called popular channels transmitted by ordinary folk, their reality being recorded by Romanian expression „neaoșă”, make someone's head timetable [4]. Mirrors universe occupational areas have generated multiple calendars entwined with religious ones, with the habits and ocupationally, restructured continuously from the time pastoral agrarian calendar, etc.. All these benefits for only two seasons: summer (pastoral, agrarian or potential) and winter (pastoral, agrarian or wine). It's survive even a calendar of old women, rather inserted in burgher language than that of the peasant, as a humorous note to the calendar so popular in general. To shepherds, passing seasons regime translates into alternative crops (summer and winter) of the itinerant and pastoral links with the village community, but it is never larger than the nature of work, unrounded off into years, but with the touch of superstition, especially for bad time to be able to keep out of his way [5,6]. Time shift has provided a lesson in Romanian mountain village. A lesson about life that can not be appropriated by anyone, except during the party. Death, as Mircea Eliade, is something that is learned. At first they did not understand anything, as nothing in life or understand. He is her grammar, a dictionary of them, like a foreign language you want to learn. Mircea Eliade provides that "documents" folklore and books of the Dead (Egyptian, Tibetan, Jewish). We believe that learning is living document over the transition time is in even suspension Romanian shepherd. Otherwise you can not explain the pastoral serenity of death, exposed by Miorița ballad. Shepherd will circumvent the wedding, the party is where he learned the lesson best death. In this study, based on a research topic focused on the interview, either detailed or fleeting, a

contraction of space is required in order to expand the importance of such time.

## MATERIAL AND METHODS

Geographical area of research was the more rural pastors today have Ungureni name under which they are known pastors in the villages located in the slope of the Carpathians south to the east of the Olt river bed, on the fields Vaideeni, Corbeni Princely or Rucar. The research method used was that of semi-structured individual interview, conducted in 23 families, where they were pre-only themes around which the discussion was to act respecting the specific methodological requirements that distinguish it from alternative structured interview (the most extreme compliance questions, but their pre-established order. Guide interview that formed the basis of sociological research that has been endowed with the field team consists of six researchers described in the box below.

Box 1 .Semi-structured interview guide that was the basis of sociological research

### Major themes from detailed written dialogue in the family farm livestock (shepherds)

#### 1. Knowing of pastoral traditions

Note: It will identify key local religious holidays pastoral impact (related to climbing in the mountains, calving lambs, barren sheep buck, local or holiday Nedeia Campeneasca bacitelor pastors and other holidays). Usually, all linked to the saints but also important in the pastoral tradition of oierilorr will identify whether producării genuinely traditionalist in terms of knowledge of major occupational habits.

#### 2. Fairs calendar dated traditional occupations, religious and mythological

Note: The fairs are a double impact in the area (a religious holiday is backed by a traditional shepherd's related to the sale of specific sheep breeding products, from cheese to wool, etc.).

I. Nedeia or local nedeita and his touristic impact.

II. Other regional religious and pastoral events.

III. Other events (focused on the sacredness, mythology, etc..)

#### 3. Recovery current celebrations of local rural tourism

4. Number of service tourist accommodation structures, dependent and pastoral products or habits (type, capacity of existing accommodation and in operation, the average occupancy rate, origin of tourists, the average length of stay, charges, services offered to tourists by traditional herders or local)

5. New occupations appeared from ocupationally valorification and local traditional pastoral in local rural tourism.

6. Workshops and crafts connected in ratio with the pastoral activities and with recovery of livestock products (pastorals).

7.Trades missing or endangered that were the occupational and traditional public holidays, religious and mythological.

Some of the results of this research are summarized, respecting originality and traditions of pastors families and events description made by interviewees.

## RESULTS AND DISCUSSIONS

In rural mountain area, time and space join together like brothers, redefine pastoral causality. All three elements of space, time and causality defines the behavior of peasants in the Western Carpathian mountain villages, the village became a cyclical phenomenon existential flocks in origin, redefined as an organic whole or as an existential framework of essential knowledge and life history and national culture [7 ]. Feast of religious and mythological located in this area closely derived from grazing activities as the major occupation of its inhabitants have created calendars of exceptional vitality of rural tourism which recovery is very importantă.Pierderea holidays for pastoral mountain village would be tantamount to losing pastoralității time, identity and sense of being in space Romanian transhumance.

Private time to angle the incessant flow of things, actions and deeds during the appraiser, vital events and defining moments is called by the peasants in the mountains "veac" (century).

Thus is the expression for time for the Romanian peasant century, but in a special way, meaning that animals household and things, and people are under age and age, that is eternal as the cosmos, but also fleeting as life. Favorite time of the day but down peasant become the shepherd's life every day. Nedeea presence, pastoral outdoor celebration in the whole area of the mountain village is able to describe occupational unitarism causation and the Christian feast of traditional pastoral mountain village.

### *I. Results of sociological research in Vaideeni*

Because of the harsh life of shepherds in ancient town called "Vai de ei" (Woe to them) and now the Vaideeni, and also of the troubles caused by the nature surrounding them, and some mishaps that have befallen the flock, „șăranii” of this mountain cities especially habits learned Marginimea Sibiu, have enshrined certain habits related celebrations throughout the year and they have passed on from generation to generation [8]. Ritual aroused the coming New Year holidays are traditionally treated by occupational and pastoral. Thus, the threshold of New Year takes place celebration of Vârjelatului event. People gather in groups, to larger homes, and participated in a common meal, followed by games - or just after the flute song after song from his mouth and after shouting. On this night put 12 sheets of onion in the window of the house, each month representing one month of the year, which is sprinkled a little salt. Morning is controlling leaf onions, as people's faith, showing how it will be months of rainy or dry with an eye to outdoor grazing and the effect on villagers. Sheets wettest months shows that they represent will be rainy and dry ones, because these months will be dry. After dining ends, put on the table bars of maize, where from faith of old people from the household minds wealth, under the table is putting a bird, which is wasteful, as the birds, the grate, spread the pile of grain. Also put on the table and other treats - apples, pears, nuts, cheese, wool, garlic, distaff, etc. - to be a year of good health and rich in cattle and humans. In the same room they sat on another table,

three, five, seven or nine pots of earth, upside down. Under each pot is put by the host objects without the knowledge of young people. Frequently used objects within reach are human but significations well defined: ring, comb, knife, mirror, cob (with or without the mustache), pencil, a little book, etc.. After all the pots are placed on the table, are called young people to find their fortune. If the girl or boy chooses pot ring, means that the year will get married and one who will take the pot with a mirror you love beautiful girl who picks corn involuntary pot with a mustache, meant that the girl will be lucky rich but old, and that choosing the pot of corn without a mustache, the young boy will be lucky and rich. The young man who finds comb, will be lucky beautiful but poor girl, and one that will find the pot of wool, you'll have more luck with the boy, while the young woman who finds pot in a cup of brandy, will be lucky shepherd who loves a drink. The atmosphere created by identifying objects hidden camera pans creates a prolonged state of joy and comments throughout the events. As an evidence of a great respect they had their parents and try and inspire the children for being a pastor since the early years of the twentieth century, the first day of the year was devoted to pastoral Vaideeni (Saint Vasile). As Ball was born shepherd who was and is a holy celebration in Vaideeni shepherds. At this festival dressed in vaideean peasants costumes all participants play on a stage, recited poems inspired by the hard life of shepherds, sing songs in the voice of the pipe or are investments as băcițe Whistling in the area. So famous is this festival that she come to attend the shepherds from Novaci of Băbeni in Poiana or Sadu Sibiu. It is a true celebration of pastoral occupation. Heat games, hore hand, whipping, Hațegan, Serb, and two games, and even "Cârpătorului Game" - performed by older ones that take up almost day. The party were drawn slowly home to most of the inhabitants of the village culture and custom "Vârjelatului" tends to disappear completely. On days 16, 17 and 18 January, when winter is celebrated Sânpetru, women pastors sheep clipper scissors link, saying the Our Father three times to bind the



wolf's mouth and can not enter into the fold. The Martyrs, March 9, housewives smoked with flowers on, gathered in summer, or rags, yard, barn cattle, snakes do not bite them, evil spirits can not enter the house, to be rich in cattle and sheep, in fruit trees and earth. During this time, says Our Father three times. The Christian faith is often mixed with that of the mythological type. At St. George, on April 23, beech leaves are put at the gates, evil spirits can not enter the household. On the night of St. George cattle are carefully guarded for fear of women taking milk from cows. In ancient tradition, these women walked naked and with different spells, taking milk from cows that could be the first night of passover approach. In the first night of Easter thieves sounds of boiler brandy pipes and to not be caught when they go to steal and cattlemen, in the same night gathering at home and have livestock with great care.

On May 7 women are not working wool and fast to not heads the sheeps. in the Saturday before Easter and three thursday after, "Thursdays of stone, not washed, not cut the sheep, being threatening to hail and thunder.

The big Nedeea from Vaideeni event is on the 24 June. This event is essentially in shepherd communities life, and is manifested in the village in the mountains bot more in the field area, vis-a-vis from cemetery (the live-aside, but along with the dead, buried under the fir tree). In the village gather fairies flowers, wreaths are intertwined (as many girls in the house, as many crowns). Old ladies gather fairies flowers, bundle link them, sprayed them with water from the well or at all "and links them to the attic. Girls go to the fountain, sprinkle with water together with the boys, bring them home and put coronets icons, to bring luck and protect them from evil. Icons line are given inheritance pastor, pastor or in his absence at his wife left from the house.

In the mountains, the evening before Fairies event, girls gather flowers, entwined by a wreath and a crown than lower. On the morning of Midsummer girls spread crown greater than lathe doors, where the sheep come to milking. Small crowns are attached at the neck of the sheep who comes first for

milking. The little crown who is first eaten by sheep, showed that the girl who braided her will marry quickly. After going of the milking sheep and of shepherds with the flock to graze, girls take the big crown and a hidden in spring. When shepherds come with milking sheep at noon, are obliged to find the crown and bring it to the sheepfold. If you find it, girls are allowed to sprinkle water, if not, sprinkle it on her daughters. Then the dance begins with having brought of the sheep with the olds shepherds. The symbols imprinted deeply into these habits are abundant in milk, health and luck, wealth for all, peace and joy. At the Feast of the Holy Ascension - 40 days after Easter - at the gate they put lovage and begin the "lovage beat", especially children, from the belief that the one who touches you for first time will take your power. All posts are held as well go to sheep and shepherds: Easter, Sânpetru, St. Mary of the Cross and on Christmas Day, etc.. (Including Wednesdays and Fridays are held with the priority). Also for the good of the flock, at the Sânpetru, they not purr, and and at the St. Elias is great fear of Thunder. Feast of St. Elijah sisters, Anna and Marina, and St. Panteleimon (July 27) - his brother - is scrupulously respected the spirit of broad community support and pastoral and brotherly aid. At Ana Foca is considered to be bad of boiled, fire from down the ground. Marina event requires big attention for big bad fire from heaven. The Elisei is celebrating as the past of Jordan River and treated it with "salt", making it a good drink. At Obrejenie on 6 August, it eats fish. The girls lie to their destined dream. It makes the game all the time for celebration marking sheep.

The Vaideean shepherd celebrates his animals who may cause difficulties in his pastoral work, mythological trying to pacify them. So the Macovei day is the day of the bear - August 1 - and celebrates, being afraid (bad) of bear. Then start the reproductive season for sheeps. Also it is extracted honey from hives. Honey is consumed at the table. Still celebrating the day Precup and the Wolf day - 11 August - when no work because is considered to be bad of wolf.

If the shepherd ball dominating even winter feast of St. Basil and Nedeia from Vaideeni marks the middle of the summer and the beauty of nature and alpine pasture and the pastoral profession, the Holy Mary's events are the last days for autumn Nedeea's of holidays in the mountains all around and finally the descent from the mountain. At Saint Mary Major begins to descend songs, sung mournfully by shepherds who have their cattle, and with joy by the owners and shepherds of the sheep.

If the first sings, "Pretty Holly Mary / Do not let the fall to come / Let the shepherd of my brothers among the trees slow down", others sing, pretty Holly Mary / Let fall to live / To escape the bondage of slavery / Shepherd of shepherds / ferry to serve. " Last Neda of Vaideeni takes place on 14 September, the Day of the Cross. This is taken near the river Neda Luncavița in Zăvoi, and have the name "Girls uted".

With this occasion, boys who are ready for marriage are choosing the future wives, and dance with them a popular folk dance named "hora". At 15 septembe sheeps come down from the mountains, rams are matting, and the shepherds goes with herds for grazing. At the 26 october the sheeps goes back to the owners ant that's mark the end of summer grazing. After this date, for the owners who wants to leave the herd with the shepherd for late grazing, is calling another payment. Starting from St. Nicolaus all the animals comes near the house, in the approach of hay storages. The village community still exercising pressure on each member of it to remain as much as possible joined in the order of Christian, mainly Orthodix and mostly Christian. The main traditions, from where we star in this research, in Vaideeni village, are respected in the pastoral mountain area so the following is what is specifically for each locality selected for the project.

### *II. Corbeni sociological research results.*

Lonely in his traditions, with one single village event, the pastoral population are in a real transhumance to the small cities from around, in that days that are alive in the

pastoral communities memories. The traditional events days for lambs weaning catch them in a long periple to Domnesti and sheep trouble is going to Cicanesti. Them Nedeia became an event by neighbours. The traditional products goes to the city losing at in the city market or on the small streets from Curtea de Arges. Traditions are still alive in the shepherds memory. With a smole help from authorities tradidions coul be reborn.

### *III. Domnesti sociological research results.*

Spring traditions and events are very closed with agricultural works and with pastoral activities. First spring day is associated, in folk traditions, with Old Ms. Dochia, an old lady who die on the 1 March and reborn on the 9 March. Is believed that Old Ms. Dochia spinning the Martisor thread putted on the breast of shepherds, being a sign of goo luck. Between 1 and 9 of March are the Old Ms. Days (from spring, summer and autumn), and on the 9 of March is day of Martyrs. They said that if at the Martyrs day the weather is cold, the situation will continue til on the St. George day. In pastoral calender, between St. George (Sângiorz), 23 april, și St. Dumitru (Sâmedru), 26 october, is defined pastoral summer, and between Sâmedru and Sângiorz, pastoral winter. Inside of this two intervals has kept some local events like Armindenul, Sumedru' fire, Paparuda, all on the dominant field of communication with an intensive ocupational and traditional character, as an belonging dialogue lost from the last century. They still keep Armindenul, celebrated on the St. George, when at the houses leve are puted beech leaves as a symbol of spring.

Sumedru's fire are celebrated in the eve afternoon of St. Dumitru, when children and boys gather more points of the village including pasture edge and gather twigs and dried leaves of walnut, corn cobs, then put it on fire and shouted:

*-Come to Sumedru's fire! Paparuda is a specific tradition for summer dry periods, when a girl, or a woman, dressed with leaves, walking through the village and sing Paparuda, ruda, Come to wet me, With clean water lefted from God. Șezătoarea was held in*

late fall and winter during the long nights and she attended the girls and women, each with her work.

Crack as a mean to organize the villagers to help each other. It was made combining hair removal.

Domnești village is knowed till today fo market fairs, real traditional events. First big fair recognized in Romania was organized on 25 March in Domnesti. Traditional character is reinforced by shep's traditional food. Another fair, with a great mythological character, is that who marks the end of a long pastoral cycle, on „*Probeajen*”, marking the excessive colling of water. Recent tradition has also imposed to the village and her childrens, the village fair, who tried to replace mountain traditional Nedeia. In the last year, the shepherds association introduced „the shepherd event”, on the St. Dumitru day (25-26 October).

#### IV. Rucăr sociological research results.

Kept till today cry sheep festival, which takes place a week after the Holy Mary event, on September 15, is the most important religious and traditional and occupational event. The event have attached a modern label who try to define his area and extending it successfully centered on pastoral activities, known as „*Expo Pastoralis*”. An gastronomy exhibition, focused on pastoral products called „*A meal in a dish*” replaces the requirements of the high tourist area.

Box 2. An excerpt from ANTREC holiday calendar in 2010.

MARCH	21-22 March – <i>A meal in a dish</i> , Rucăr, Argeş County
APRIL	12 April – <i>National day of rural tourism</i> Rucăr, Argeş County
MAY	May – <i>Tradition and ecotourism fair</i> , Rucăr, Argeş County
SEPTEMBER	12-13 September - <i>Expo Pastoralis /Cheese parade</i> , Rucăr, Argeş County 26-27 september <i>Sheep trouble/ Cheese and meat festival</i> , Bran, Braşov County and Rucăr, Argeş County
DECEMBER	6 December – <i>Old Man Nicholas Come</i> , Bran, Braşov County and Rucăr, Argeş County

Also remacable is Heroes Praise fair, on 28 March, completed in september by event

„Heroes fighting with death”, dedicated to the shepherds. Another regional event are „milk measurement” from half of June till half of July, each owner going to the herd for this measurement to evaluate his rights. We can note also some of the newest customs, coming from the past, but with a very good touristic message as mentioned below.

Box 3. Customs about the girls who hopes to marry, practiced on the very evening of the new year.

*A group of girls come in a cattle barn. If cattle are sleeping, make them kick in saying: "Let this year." If the animal is not raising, the admonition will be repeated. The number of this auctions represents the number of years after which the girl will marry! Marriageable girl make some cookies („dry”), this evening. She goes outside from the house eating this „dry”. Which party will hear the dog barking, that part will come from her destined one. If a family has more girls, they search for the bones jelly and put it on the doorstep outside. On of which of them will take the dog first, that will get married first.*

*Marriageable girl leads the garbage to the river. From which party will come the dog to look in the garbage, there will come also her future husband.*

*Ciurlezu. , childrens, especially girl, walk with this „ciurlez” (a little bucket with water and some basil) saying incantations and wishes to households that are received. The boys sit around the church awaiting those with the name John.*

*Brezaia. Young men and women until 50 years are organized in groups for Christmas. Brezaia can be considered a kind of folk theater. Most important characters are Old man and Brezaia. Old Man is known by skull of loins (sheep skin) and club in hand after beating children or grown people running it, to give him money. Brezaia (weathercock) is Old Man's wife. She is wearing a raincoat covered with headscarves as different colors and patterns made by the lads of the village girls a few days before Christmas. Weathercock has a knock on the head of wood, like the goat in other areas of the country. During the carol at home, on Christmas night, weathercock play and dash. The third day during village "hora" dance Brezaia is joyful, then falls and dies. The boys go to a pub to get them buried. Old Man making a different gesture grieves them entertained those present. Old Man and Brezaia are two characters symbolize biblical Herod and Herodias.*

*Sumedru's Fire. On the 25th of October, St. Demetrius day children are "Sumedru's Fire." They prepare, in time, fir tree, bush shaped, give fire at dusk and begin to shout: "Come to the fire of Sumedru, maa." Women share their apples, nuts, pretzels and crackers. Meanwhile, around the fire are putted to boil large pots filled with potatoes and kettles with boiled brandy. Mens do that. Some of them cut, on wooden trays, traditional cheese, fresh or smoked. The "sarba like in Rucar" folk dance and the musicians accompanying preparations. When potatoes and brandy were boiled, the whole congregation is invited to snack. It sings and plays until late. I hear frequent callings over the village of "Let the fire of Sumedru, măăă! Custom is old, it is assumed that overlapped a non-Christian ritual cleansing of the area surrounding the fire, the Geto-Dacian origin ritual.*

All these celebrations are losing more traditional and occupational impact, becoming moments or events with impact in the touristic area Rucar - Bran.

## CONCLUSIONS

Many of the customs and traditions on display require to be valued in terms of rural tourism, their complexity is long lost in the rest of Europe. With the recovery of tourism can emerge some closely related professions concerning animal breeding, now at the end of their existence, practiced by the older persons, who still realize from coats to the sheepfold and shepherd hats, to wooden articles tutorials, from primary preparation of leather to fabric crafts. In summary, it can be sold a wide range of local tourism programs to offer even religious pastoral temporal specificity is evident. Thus, to illustrate can be a stay during a weekend entitled: "Two days suspended Nedeea Vaideeni", "A Pastoral Vaideeni party, out of reach of passage", "From Marginime back to Vaideeni during the party", etc.. Stay longer, the maximum duration of a week can provide under the image as "Wolf Week", "Macoveiul - Vaideeni celebration to bear," "uted Vaideean girls - girls in yell lads Fair," "Surrender of Vărjelat" or "Sanziene Vaideeni" either single or combined. Holidays circular Mărginimea, Northern Oltenia and Sibiu can become "What Goes Around, Comes Around During the time of Perennial festival" (Which will travel back in time and the perennial party). Slowly and painstakingly, and then there will be a pastoral festival of suspended time. The entire program will focus on the lack of travel time, giving tourists the chance to live out real time by exploiting the physical natural time of day, from sunrise to sunset, through the mansions and long hours, the suspended during the feast .

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## REFERENCES

- [1] Bernea Ernest, 1997, Spațiu, timp și cauzalitate la poporul român, reed. Ed. Humanitas, București, p. 195
- [2] Bernea Ernest, 1997, Spațiu, timp și cauzalitate la poporul român, reed. Ed. Humanitas, București, p. 198.
- [3] Filipeciuc Ion, 2002, Miorița și alte semne poetice, Ed. Biblioteca „Miorița”, Câmpulung, Bucovina, p.7.
- [4] Ghinoiu Ion, 2002, Sărbători și obiceiuri românești, Ed. Elion, București.
- [5] Rosener, W., 2003, Țăranii în istoria Europei, Ed. Polirom, Iași.
- [6] Wolf, E. R. 1966, Peasants. Englewood Cliffs, NJ: Prentice-Hall.
- [7] Gheorghe Săvoiu (coord.), Mirela Stanciu, Iulian Vlad, Firescu Victoria, Bănuță Mariana, Crăciuneanu Viorel ș.a. 2010, Studiu privind relațiile tradiționale, culturale și spiritualitatea profundă, existentă între repausurile activității de bază pastorale și marile sărbători religioase la românii din arealul rural montan, Editura Universității „Lucian Blaga”, din Sibiu.
- [8] Tomeci V., Diaconescu G., Apostoloiu A., Ionescu G., Diaconescu V., Cădea I., 2007, Vaideeni. Monografia comunei Vaideeni, Ed. CONPHYS, Rîmnicu - Vâlcea.