Centre for Research on Settlements and Urbanism

Journal of Settlements and Spatial Planning

Journal homepage: http://jssp.reviste.ubbcluj.ro

Increasing Agricultural Competitiveness by the Setting up of Young Farmers. The Case of Moldavia, Romania

Alina-Mirela MARCU[1]

[1] *"Al. I. Cuza" University, Faculty of Geography and Geology, Department of Geography, Iaşi, ROMANIA*
E-mail: alina_marcu87@yahoo.com

K e y w o r d s: *agricultural sector, beneficiaries, European funding, rural space, young farmers*

A B S T R A C T

Out of the modernization processes carried out in the rural space, we can identify those measures designed to improve knowledge and human potential. Considering the rural community as a group with relatively strong cohesion determined by their social and economic interests and imposed by the life in common from generation to generation, we intend to analyze the development of agricultural holdings owned by the young farmers in Moldavia, after the accession of Romania to the European Union. It was therefore necessary to take into consideration the implementation of Measure 112 "Setting up of young farmers", developed under the National Rural Development Programme 2007-2013. The financial grant awarded under this measure addresses especially farmers aged up to 40 years, individuals or legal persons, who practice mainly farming activities. The aim of this measure is to increase the productivity of agricultural holdings led by young farmers and increase the number of farmers who start practicing an agricultural activity for the first time as heads of holdings as well as to encourage them to make investments. All along, this measure supports the enhancement of environment protection, hygiene and animal welfare, and safety at work. Thus, changes in the social structure of rural communities have shown a priority in increasing the quality of life in Moldavia, as well as the lifestyle gradual change and optimization, by developing agricultural holdings, which mainly produce agricultural products for human consumption and animal feeding. Also, the changes that occurred in social structure dynamics developed simultaneously with the increase in the competitiveness of the agricultural sector, especially in Iaşi and Vrancea counties.

1. INTRODUCTION

This article aims to apply the principle of spatial distribution, formulated by Emmanuel de Martonne to determine the spatial characteristics of the beneficiaries of European Union funded projects. The specific position relative to the relief is important because it may suggest that there may be causal links between the population and climatic condition. And the second principle used, is the principle of causality introduced by Alexander von Humboldt in geography. This refers to the discovery of the causal links among non-refundable financial absorption, and territorial distribution of farmers in Moldavia. The main objective of this article is to analyze the development of agricultural holdings in the possession of the young farmers in Moldavia, after the accession of Romania to the European Union.

This paper is intended to be a comprehensive study that would answer the following questions: *Where* and *Why*, the most investments were made in Moldavia? The answers to these questions will primarily depend on basic resources linking European grant funding, namely: natural resources, financial resources, human resources and material resources.

Most natural resources are irreversibly consumed; few are those who have the capacity to regenerate. As regard to soil as agricultural land, it should be noted that it is subjected to the action of the law of *Diminishing Returns*. Along with soil and other natural factors: topography, water, climate etc. they have a particularly strong effect on agricultural production

manifested independently of human will. The other two resources, material resources are goods produced and labour used to produce other goods and/ or services, whereas human resource is the one that coordinates all other resources, the only source of creation and innovation.

Launched in 1962, the Common Agricultural Policy (CAP) of the European Union is a partnership between agriculture and society, between Europe and its farmers. It aims:

- to enhance agricultural productivity, to ensure consumers a stable supply of food at an affordable price;

- to ensure a decent standard of living for European Union farmers [1].

In 1988, the strategy for "the future of rural areas" identified one of the essential foundations of a common policy for Rural Development: the extreme disparity between rural and non-rural Europe [2]. This strategy highlighted the need to better develop the approaches and provide more financial resources that countries were able to provide separately [3].

Thus, in September 1993, the Standing Committee of the Council of Europe appointed the Committee on Agriculture and Rural Development to elaborate a document to identify the guiding principles of sustainable development of agriculture and of European rural space, known as the *European Charter of Rural Space* [4].

With a view to the reform of the Common Agricultural Policy made in 2003, this introduced a new system of direct payments, named "single payment scheme", which is no longer linked production aids [5].

The concept of rural development is part of a relatively new policy in the history of the Common Agricultural Policy [6]. Born as part of an intensive cooperation between the agricultural structural policy and regional development policy, it was consolidated as a comprehensive policy only in *Agenda 2000* [7].

For the programming period 2007-2013, the Rural Development Priorities cover three key areas: the agri-food economy, the environment and the broader rural economy and population. The current generation of strategies and programs of Rural Development is built on four pillars, [8] namely:

Axis 1 - to improve the competitiveness of the agricultural sector and forestry.

Axis 2 - to improve the environment and the countryside.

Axis 3 - to improve the quality of life in regions rural and diversify the rural economy.

Axis 4 - the Leader approach.

In all countries of the European Union, farmers preserve the life of the countryside and maintain the rural lifestyle. The disappearance of farms and farmers has a material adverse impact on villages. But farmers need machines, buildings, fuel, fertilizers and veterinary care, because farmers use the countryside for the benefit of all. They provide public goods, through a good management and proper maintenance of our soil, our landscape and our biodiversity. The market does not pay these public goods. The European Union provides income support to farmers as compensation for services rendered to the society as a whole. The European Union Member States invested 96 billion euro under the rural development policy for the period 2007-2013. Farmers receive direct payments provided that they meet certain standards of public health, animal and plant health, environment and well-being of animals, and keep their land in good agricultural and environmental conditions. If the farmer does not meet these conditions, the direct payments they claimed may be reduced or even withdrawn completely for the year during which they violated these standards [9].

As beneficiary of a financial program supported by the pre-accession funds, Romania had access to EU structural funds only since 2007, and the financial assistance for rural development scheduled for period 2007-2013 is focused on the European Agricultural Fund for Rural Development (EAFRD).

Some of the major reform elements adopted by Romania in this period were the significant judicial and organizational changes that occurred nationwide in the context of European integration and the allocation of financial resources for their implementation. But, the most important document was the *National Plan for Agriculture and Rural Development* (NPARD) elaborated in period of 2000-2006, which was the basis for the implementation of the *Special Pre-Accession Program for Agriculture and Rural Development* in Romania (SAPARD) and which was approved in December 2000. The aim of this program was to solve several long-term issues of the agricultural sector and rural areas.

Essentially, farm size has evolved independently from the Common Agricultural Policy reforms [10], but according to Kerekes (2010) the viability and economic size of holdings is an important problem in the rural area because of the excessive number of workers in small family farms [11], while the next important factor of competitiveness is the orientation on diversification [12]. At national level farmers practice different types of crops and livestock breeding based on specific traditions of the Romanian village. These farms are characterized by a relatively diversified production structure, driven both by the household needs and insufficient, inadequate and old technical equipment, which hinders productivity and limits the surplus of products for sale [13].

2. THEORY AND METHODOLOGY

This scientific approach involved several methods as follows:

a). Mapping method was used for a comparative time analysis by comparatively examining

the financial support before and after the accession of Romania to the European Union. The method involved making graphical representations of the reality in the field at a smaller scale and simplified to retain the essence of the territory.

b). Statistical method involved statistical data processing, for achieving a comprehensive analysis of rural development based on the knowledge of European Union funding instruments. The drawbacks of this method were caused by the fact that statistical data had to be updated according to official sources, provided by Agency for Rural Development and Fisheries at the end of 2013. The database was developed by using the publicly displayed data on the website of Paying Agency for Rural Development and Fisheries [14], public institution with legal personality, subordinated to the Ministry of Agriculture and Rural Development.

We wanted an analysis of statistical data, by the use of output indicators both at county and local level. The database was created by quantifying the number of projects approved and the public contribution paid to beneficiaries for investment. Finally the management of geographic information was achieved by creating cartographic material with the aid of: Phicarto [15] and Adobe Illustrator programs.

Fig. 1. Geographic location of the research area.

The geographical area under study is represented by the Romanian historical province of Moldavia, located in the North - East of Romania and known in the literature as the *Western Moldavia*. Geographically, Moldavia is bordered by the Republic of Moldova in the east, Republic of Moldova and Ukraine in the north, Transylvania and Wallachia and Dobrogea in the west and south.

The varied topography of this area has favoured the development of human settlements from ancient times and due to its geographical position on the axis of European trade routes the region has constantly evolved demographically and economically.

3. RESULTS AND DISCUSSION

In accordance with the *Applicant's Guide* for Measure 1.1.2. "Setting up of young farmers", the European funding was addressed especially to farmers aged up to 40 years, natural or legal persons, who would practice farming [16]. By applying this measure it was intended to improve farm incomes in case of agricultural holdings owned by young farmers, to increase the number of farmers that would start farming for the first time as heads of their holdings. Other aims were to receive and encourage investments and support the environment preservation, high level of hygiene and animal welfare, and safety at work. With respect to funding, the contribution of the Romanian Government was of 20% and the contribution of the European Union was of 80%. Therefore, in case of this measure, a total of 1.349 projects were contracted in the Moldavian rural area during the sessions held between 2008 and 2011, with a total budget of 28,984,000 million euros.

3.1. The analysis of the total number of projects implemented and their financial value at county level

As it can be seen in Figure no. 2 in the region of Moldavia, the counties in which the most European projects were contracted are Iași County with a total of 366 investments and Vrancea County with a total of 271 beneficiaries.

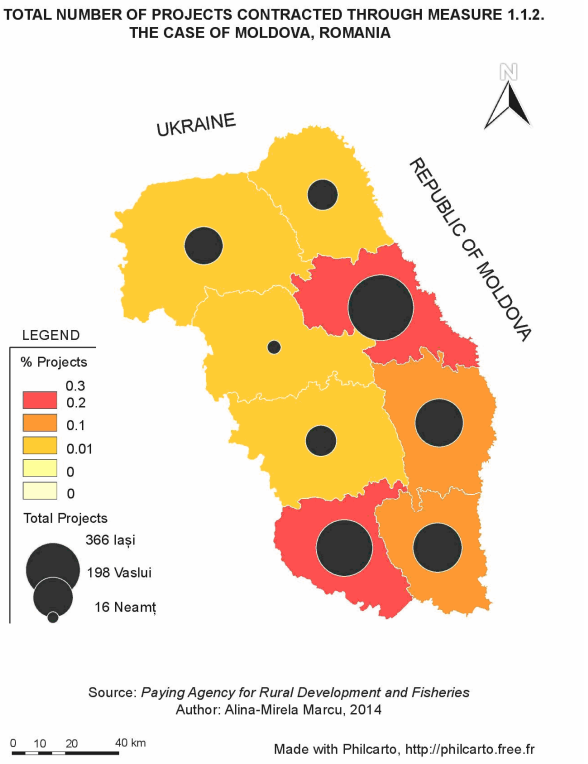

Fig. 2. Total number of projects contracted.

One possible explanation could be related to land use, which primarily reflects the natural conditions of the environment or of phenomenon of dispersion, which is the result of social conditions, especially to the social transformations which conditioned the formation of villages. We also notice that villages are agricultural for the most part, based on crop cultivation and livestock breeding in steppe in Moldavia and Siret Valley and in Vrancea County, where the grasslands of the high area favoured the development of a varied effective of animals. In addition we add extremely favourable natural conditions from piedmont area where the cultivation of vines in Vrancea County, present an ancient tradition. In terms of financial value of contracted projects under this measure, a higher absorption of EU funds in Iași can be observed, and the following positions are occupied by four other counties, namely: Vrancea, Galați, Vaslui and Suceava.

As in the previous case, on the last place we find Neamț County, where, the financial value is of 334,000 Euro, because this territory has a low population density with seasonal economic activities.

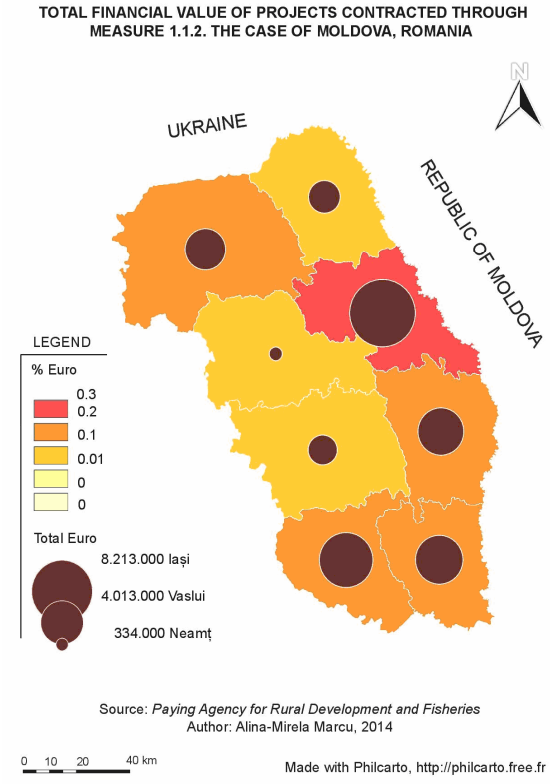

Fig. 3. Total financial value of projects contracted.

This category includes all settlements in the upper basin of Trotuş river and from the upper basin of Tazlău river and middle basin of Cașin and Oituz rivers from the county of Bacău. The fewest changes occurred in the central part of Tutovei Hills, because of the natural conditions, where the villages are functionally in the category of rural settlements with predominantly agricultural functions.

3.2. The analysis of the total number of projects and total value of their, per years

Aiming to achieve a detailed analysis of this measure at the regional level, we decided to classify these projects depending on the period in which they were implemented. According to Figure no. 4, 2008 can be considered the year of onset for the beneficiaries of these projects, the number of young farmers increasing from one period to another. However, we can see the low interest of applicants from Neamț County. Here, no project was implemented in 2011.

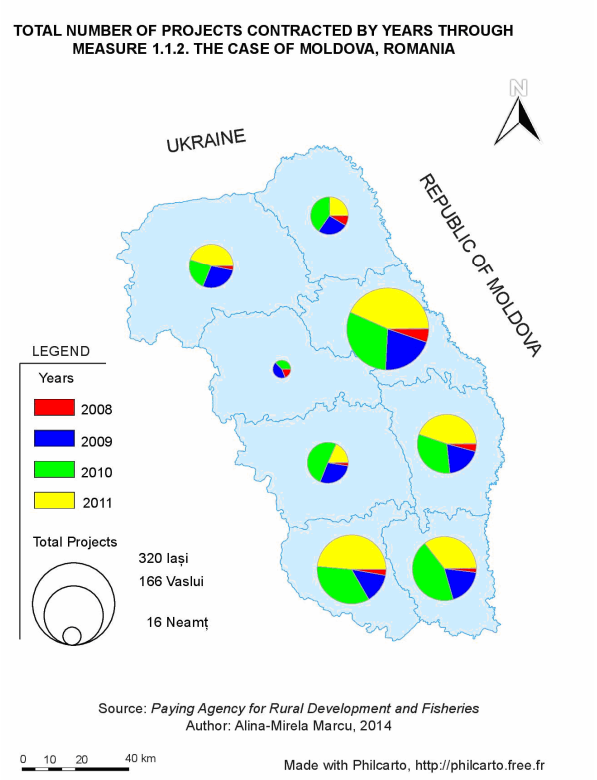

Fig. 4. Total number of projects contracted by years.

A totally different situation we encounter in Botoșani County, where the hilly landscape has created good conditions for carrying out agricultural works, and in terms of economic activities, all villages from county are predominantly agricultural.

But the great agricultural possibilities of the county remain a reality that will have to be taken into account in the future, by continuing the process of modernization and intensifying the agricultural production. These processes may become possible in this direction, only by passing from individual property with low yields, to an undifferentiated agriculture, the largest surfaces benefitting from higher means of mechanization. In terms of financial value of these projects implemented per years, we can say that there is no difference between the two map representations, respectively, Figure no. 4 and Figure no. 5. If before this analysis, there were some differences, in this case, the situation remains unchanged.

The explanation is given by the financial amount as support for the young farmers, which was of 12.000 Euro for a holding with minimum size 6 UDE, while the financial support could increase by 4.000 Euro/1 UDE, but could not exceed 40.000 Euro/holding.

In the case of installation of young farmers, the granting financial funds were scheduled in two instalments. The first instalment was paid at the date approved by the Payment Agency for Rural and Fisheries and represented 60% of the total amount and the second instalment of 40% was given to accomplish the actions specified in the Business Plan.

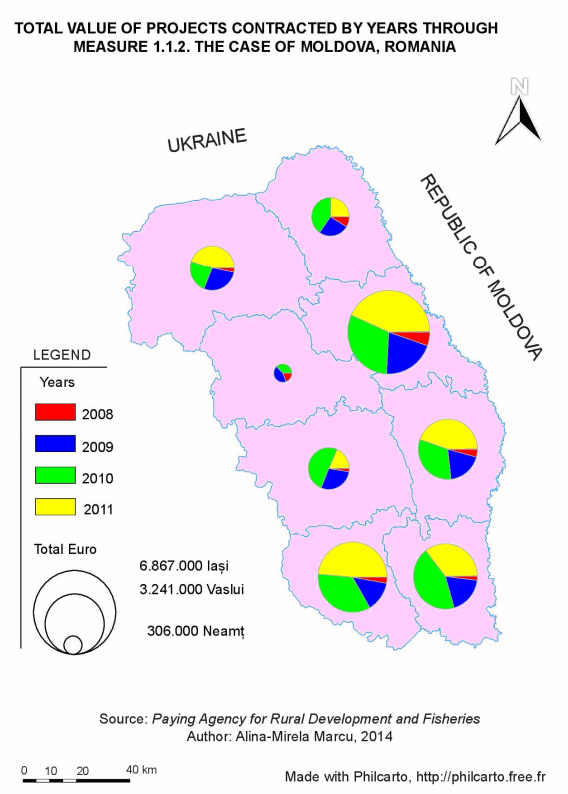

Fig. 5. Total value of projects contracted by years.

But to get the funds, in the first three years of financial support, applicants had to follow training courses in one of the fields of agriculture farm management, farm accounting, environmental protection, organic farming, and so on.

3.3. Spatial and local distribution of the projects contracted by Measure 1.1.2.

Regarding the territorial distribution of projects implemented at the local level in Figure. no. 6 we find that the vast majority of investments were made in the eastern region due to favourable natural conditions. Our attention is drawn primarily by the large number of beneficiaries in Galaţi County, located in the Matca locality. Settlements in this part of the region benefit from good natural conditions, such as ground stability, slope inclination, the presence of water, availability of valleys and hills, etc. Besides these, the county's economy has largely been influenced by natural factors as soil fertility, the Danube River and the proximity to the sea, the convergence of the river and road axes between Siret and Prut, the Transcarpathian passing of Oituz and also determined by social and economic factors that acted variably, but continuously over time. Therefore, agriculture is particularly important to this territory by providing significant production of cereals, sunflower, vegetables and large quantities of meat, milk, fish and bee products.

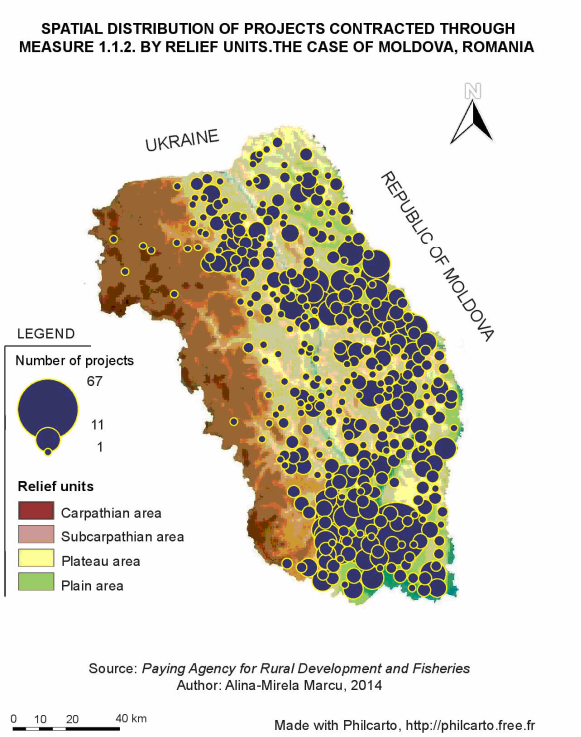

Fig. 6. Spatial distribution of projects contracted by relief units.

A relatively high local distribution of projects is met in Iaşi County because the most densely populated areas are finding along the central axis that connects Paşcani city to Iaşi municipality. Thus, a peri-urban area was formed around the city of Iaşi, which includes localities with a high number of beneficiaries, because the locals of this area are qualified as active population, due to the proximity of urban centres.

In addition, the geographical contact position of Bacău County between two geographical units, plateaus and mountains, as well some of the natural and historical elements have favoured the development of a mixed economy here, in which livestock breeding, the crop of cereals and fruit growing represent the basic agricultural practices. The structure of agricultural land shows the predomination of arable soil, meadows and pastures, the basic crops being maize, wheat, fodder plants and potatoes. Livestock breeding predominates in the Depressions of Neamț, Bistriţa and Cracău-Tazlău as well as Cașin Depression, where sheep breeding is most common.

In terms of cattle breeding, they occupy an important place in the central and western Suceava Plateau, whereas pigs breeding is specific to Rădăuți Depression. In this way, the Suceava Plateau is characterized by intensive farming.

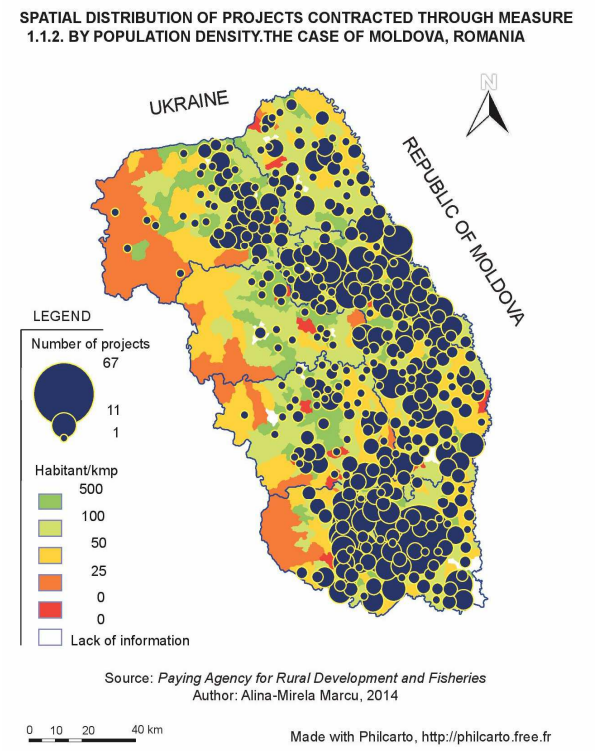

Fig. 7. Spatial distribution of projects contracted by population density.

In Vaslui County, the young farmers have turned their attention to developing the cultures of technical plants and vegetable, viticulture, fruit trees growing, since this is an area where agricultural practices are less diversified, with lower yields. We refer to the less evolved agricultural area, in Bârladului Plateau, that could be improved by the development of material and technical base of livestock, its concentration in specialized units, management of feed and feed concentrates, providing even better veterinary health assistance.

We also observe a large number of investments made by young farmers in the cultivation the vine and the culture of cereals (fig. 7), in the piedmont area, respectively Panciu-Odobești vineyard, which extends on the territory of localities Păunești, Tifești, Balotești, Jariștea, and others. But the same is not happening in the rural area of Neamț County, where the culture of vines is less important. This is because of the climatic conditions, which are not optimal for this culture, but on small areas. However, livestock breeding is a basic agricultural practice in the economy Neamț County, along with the natural forage base, which proves the importance of this economic sector. Neamț County has a rich tradition in animal husbandry it maintaining extensive animal husbandry until the socialism period. However, in the recent years, we can speak about an intensive animal breeding. Thus, the young farmers wish they rationally used the natural meadows and pastures, and increased the use of fodder grasses.

We believe that the agricultural sector in Moldavia faces difficulties in increasing the degree of mechanization of processes and because of the structure of the domestic supply of agricultural machinery, inadequate farm size and financial difficulties due to the high price of cars, and reduced opportunities to purchase their own, from internal and external market. Thus, we can see that young farmers seek an economic optimum depending on the environmental conditions reflected in the spatial distribution of these investments and in the zoning of agricultural production. They developed projects for plant cultivation and various livestock breeding, with a particular emphasis on the culture of cereals, industrial crops and livestock grown in Covurlui Plateau, on dairy farming and vegetable in suburban areas, on the viticulture in Cotnari, Huși and Panciu-Odobești vineyards, and the culture of industrial plants from Suceava Plateau and Siret Valley

4. CONCLUSION

In conclusion, the result of this scientific approach can answer the questions: *Where* in Moldavia *and* why did they make the most investments for supporting young farmers?

Where? The analysis results indicate an increase in the competitiveness of agriculture in the central and southern part of region by developing farms, which produce mainly vegetable and animal products for human consumption and animal feed. Therefore, young farmers have invested in the culture of grain, determined or conditioned by environmental requirements only, traditions, specific traditional units, the agricultural sector is influenced by the distribution of settlements and agricultural structures.

Why? Due to highly favourable natural conditions, which have determined the development of a relatively large agricultural sector in Iași and Vrancea counties, and on the other hand, due to a uniform and complete use of the potential of the local labour force.

Thus, the territorial distribution of these projects confirms a link between geographical location, potential housing and adaptability to social and economic modernization, to young farmers, and the cartographic representations were helpful in clarifying these aspects.

5. ACKNOWLEDGEMENTS

This work was supported by the strategic grant POSDRU/159/1.5/S/133391, Project "*Doctoral and Post-doctoral programs of excellence for highly qualified human resources training for research in the field of Life sciences, Environment and Earth Science*"

co-financed by the European Social Fund within the Sectoral Operational Program Human Resources Development 2007 – 2013.

REFERENCES

[1] *** European Commission Edition (2014) - *Un partenariat entre l'Europe et les agriculteurs - La politique commune de l'UE au coeur de l'alimentation, de la vie rurale et de l'environnement [A partnership between Europe and farmers - The common policy of the EU in the heart of food, rural life and the environment]*, 1049 Bruxelles Publisher, Belgique, p.3.

[2] **Mahé, L.-P., Orlato-Magne, F.** (2001), *Politique agricole: un modèle européen [Agricultural policy: a European model],* Presses de Sciences Po Publisher, Paris, p. 120.

[3] **Mantino, F.** (2010), *La réforme de la politique de développement rural de l'UE et les défis à venir [The reform of the rural development policy of the EU and the challenges ahead]*, p. 3, Available at: www.notre-europe.eu. Last accessed: October, 07, 2014.

[4] *** *La Charte europeenne de l'espace rurale – un cadre politique por le developpment rural [The European Charter of rural space - a policy framework for rural developpment]*, Available at: http://assembly.coe.int/ASP/Doc/XrefViewHTML.asp?FileID=7441&Language=FR. Last accessed: October, 07, 2014.

[5] **Hureaux, R**. (1993), *Un avenir pour le monde rural [A future for rural areas]*, Pouvoirs Locaux Publisher, p. 84.

[6] **Butault, J.-P.** (2004), *Les soutiens à l'agriculture - Théorie, histoire, mesure [The agricultural subsidies - Theory, history, measurement]*, INRA Éditions Publisher, Paris, p. 78.

[7] **Perraud, D.** (2000), *L'Europe verte : les acteurs régionaux des politiques communautaires agricoles et rurales: [colloque], Lyon, France, 23 octobre 1998 [Green Europe: Regional stakeholders in agricultural and rural community policies: [conference], Lyon, France, October 23, 1998],* Institut national de la recherche agronomique Publisher, Paris, p. 150.

[8] **Loyat, J., Petit, Y.** (2008), *La politique agricole commune: une politique en mutation [The Common Agricultural Policy: A Policy change],* La Documentation française Publisher, Paris, p. 127.

[9] European Commission Edition (2012) - *Les possibilités de financement de l'Union européenne — Guide du débutant [Funding opportunities in the European Union - Beginner's Guide],* pp. 20-21.

[10] **Giannoccaro, G., Berbel, J.** (2011), *Influence of the Common Agricultural Policy on the farmer's intended decision on water use*, Spanish Journal of Agricultural Research 9(4), p.1022. Available at: http://www.agriculturejournals.cz/publicFiles/112645.pdf. Last accessed: October, 15, 2014.

[11] **Kerekes, K.** (2010), *The impact of EU-accession on farming and agricultural employment in Cluj County*, EASTERN JOURNAL OF EUROPEAN STUDIES Volume 1, Issue 1, p. 48. Available at: http://www.ejes.uaic.ro/articles/EJES2010_0101_KER.pdf. Last accessed: October, 15, 2014.

[12] **Tomšík, K., Rosochatecka, E.** (2007), *Competitiveness of the Finnish Agriculture after ten years in the EU*, AGRIC. ECON. – CZECH, *53*, p. 453. Available at: http://www.agriculturejournals.cz/publicFiles/00390.pdf Last accessed: October, 15, 2014.

[13] **Vijulie I. et. al.** (2013), *Analysis of farming types' characteristics in the Boianu Plain (Romania),* HUMAN GEOGRAPHIES – Journal of Studies and Resear Geography 7.1,p. 67. Available at: http://humangeographies.org.ro/articles/71/7_1_13_6_vijulie.pdf Last accessed: October, 15, 2014.

[14] *** Payment Agency for Rural Development and Fishing - statistical data, Available at: www.apdrp.ro. Last accessed: July, 12, 2014.

[15] *** Mapping Program, Available at: http://philcarto.free.fr. Last accessed: July, 12, 2014.

[16] *** (2011), Guide for Applicants for accessing Measure 1.1.2 "Setting up of Young Farmers", Version 05 of October 2011, Available at: http://www.fonduri-ue.ro/res/filepicker_users/cd25a597fd-62/Finantari/Alte_oportunitati/Agricultura_si_pescuit/7_Ghidul_Solicitantului_Masura_112.pdf. Last accessed: July, 12, 2014.