

UDC 338.22(498):332.122

Berlingher Vasile

## ENTREPRENEURSHIP IN THE RURAL ENVIRONMENT

*The development of business in Romania was described in the article. Taking into account the statistics shown that in Romania, about 9.6 million people live in rural areas, rural entrepreneurship can be a separate kind of entrepreneurship. The author has presented the arguments that affect on entrepreneurship development in rural areas. The positive and negative aspects related to sustainable rural development was given.*

*National programs for rural development aimed at increasing the competitiveness of farming and forestry, the support of the European community for the establishment of agricultural and non-agricultural activities in rural areas, oriented toward economic development and increasing the quality of life in rural areas were described.*

*The success or failure of a strategy for encouraging entrepreneurship in rural areas depends largely on new created jobs, on the growth of household income in rural areas, the number of enterprises set up and, not ultimately, differences in living standards between rural and urban population were grounded in the research.*

**Keywords:** entrepreneurship, rural, sustainable development, competitiveness, enterprises.

**Problem definition.** Romania has been crossing a period of transition from socialism to capitalism since 1989, transition not yet completed. At the same time, it has been trying to develop and strengthen the mechanisms of market economy. The centrally planned economy has proven inefficient as its operation based on socialist ownership has not ensured the entrepreneurs' freedom of action on the basis of market competition, problem still faced today, after 25 years of transition.

The consolidation and development of market economy mechanisms, the knowledge of the management and entrepreneurial practices that would support the Romanian economy, as it has happened in other developed countries, leave much to be desired.

Regardless of the social period we are going through, the economic organizations are facing increasingly complex situations, generating many changes. Thus, the entrepreneurial leadership is needed not only in the interest of companies but also in that of the society.

**Analysis of the latest researches and publications.** The study carried out shows that entrepreneurship must be present in the interest of the society and that of the entrepreneurs at local and central level who are facing the existing bureaucracy and the increasingly complex environment in which they operate. In the developed countries the agricultural policies of the European community are completed and the results are positive, the income of the rural population in some countries are comparable to those in the urban areas because the income generated from the economic activities carried out in the rural areas of these countries is comparable with the income generated from the urban industries

However, there are countries where the living standard in the rural area is at the limit of poverty, less

developed countries where people live with less than 2 euros/day<sup>1</sup>.

**Formulating the goals of the article (defining a task).** The attention and resources of the international community must move towards the rural development of these countries, justified not only by reducing poverty but also by the fact that agricultural activities are conducted on the largest areas of land and water [7]. In these countries the rural development should not be concentrated only on the agricultural activities but on the entire system using potentially productive natural resources.

Agriculture, animal husbandry, forestry must be regarded not as strictly agricultural fields but as parts of an integrated system jointly with the development of the human capital, the infrastructure and last, but not least, the social development.

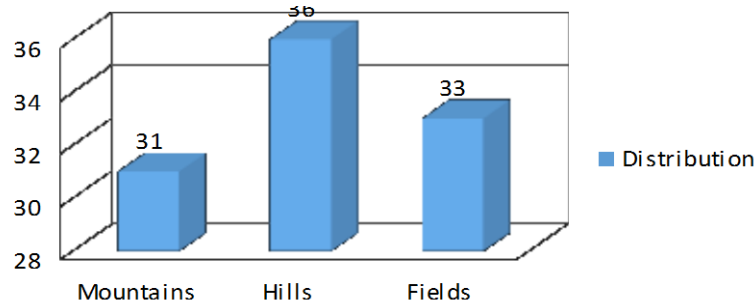
**Entrepreneurship and rural development in Romania.** The rural development draws the attention and the resources worldwide, not only at national but also international level, as rural development is important both for the developed countries and for the less developed ones with a preponderant rural population. In such communities, because of the uncontrolled deforestation and the use of various fertilizers and pesticides, the agricultural areas are damaged. The biodiversity, important for climate regulation (water and air, soil fertility, food production, etc.) as well as the natural habitats are destroyed, farming and fishing are affected and the productivity of these activities is increasingly lower.

Thus, in Romania the rural development must as well focus on the whole system with productive potential using water resources, including waste water management, irrigation and land improvement, together with human capital development, infrastructure and social development.

<sup>1</sup> The last survey dated April 2015 carried out in Great Britain by the Institute for the Research of the Globalist Development indicates that the number of the Planet inhabitants living on less than 1.25 USD / day is of 1.5 billion, more than the figure of 1.2 billion declared by the World Bank. It also mentions that 550 million of the 1.5 billion are living in a complete poverty, with only a few cents per day.

The rural area of Romania covers a surface of 207 522 km<sup>2</sup> (87.1% of the total surface of Romania)], out of which a lot is insufficiently used from economic point of view. Geographically speaking, it is distributed

in rather balanced proportions (plain, hill, mountain). The population of this territory represents 45.5% of Romania's population covering unevenly the country territory<sup>2</sup>.

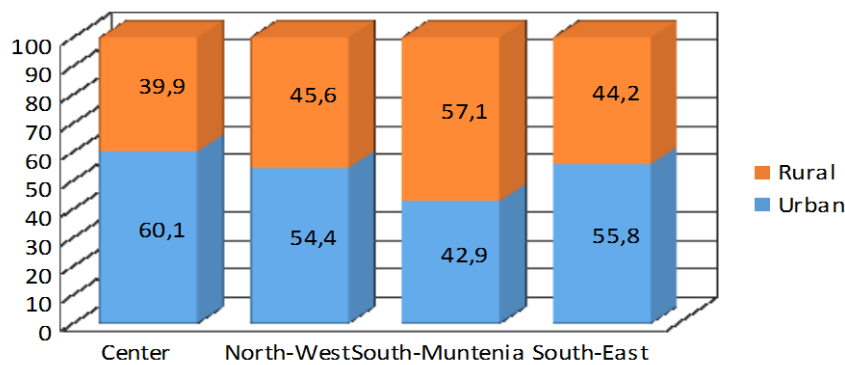


Romanian geography

These disparities put a mark on the social-economical development of the respective areas and on the quality of the rural population life.

We found that in these areas, and not only, it is necessary to develop information centers, training and consultancy centers for farmers in order to

disseminate the agricultural practices friendly to the environment, to underline the unfriendly practices represented by the agricultural-chemical inputs such as fertilizers, pesticides, etc., as well as the phenomena that result in reduced productivity and fertility of the soil.



Distribution of the urban and rural population on regions

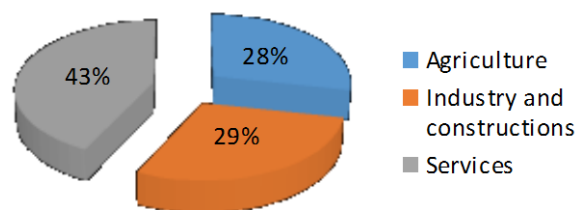
The rural economy has got an increasing potential that is still insufficiently exploited. In 2014 the agriculture generated 31641.2 million RON gross added value (GAV), representing 5.34% of the total GAV. The evolution of GAV distribution on sectors indicate the continuous decrease of the agriculture weight (6.00% of the total GAV in 2012, 6.4% in 2014) in the favor of the secondary and tertiary sectors [8]. The labor productivity amounted in 2014 to 2470 euro per occupied person, 5 times smaller than the national average of 12,530 euros per occupied person, while industry and constructions recorded values of 1.5 times higher.

The degradation of the irrigation infrastructure, the negative effects of drought, the insufficient water reserves have affected the agricultural area. At the same time, the carrying out of activities in the productive sector rather than in the processing one directly affects the results of agricultural activities.

As concerns the traditional activities (crafts, handicrafts) carried out by craftsmen who work on their own or organized in associations and craft cooperatives, we notice that in 2014, out of the total 2017 cooperatives or groups of producers 42.5% were craft cooperatives while the population occupied in economy on activities was of 28.9% in industry and constructions, 42.8% in services and only 28.3% of the total employed persons belonged to the agricultural sector [5].

The stimulation and development of an efficient rural entrepreneurship oriented towards specific agricultural and non agricultural activities will increase the number of employed people in rural areas by reducing the migration of young people and adults from rural to urban areas. They will involve more actively and directly in developing the communities and indirectly in increasing the living conditions of the inhabitants of these areas.

<sup>2</sup> As per Eurostat data of 2012



*Distribution of the employed persons in economy*

**Setting forth the research basic material** The relevant results of the rural entrepreneurial success that can also be considered as support objectives for any entrepreneurial program are as follows:

- increasing the number of small businesses;
- increasing the employment in rural or urban areas;
- strengthening and expanding the already existing businesses;
- attracting investments [4].

The objectives mentioned above can also be considered as indicators that actually support the increase of the rural or urban population life standards when accomplished.

Beyond the direct measurable effects, the entrepreneurship success in general also generates indirect benefits such as: identifying the successful practices for the business community, disseminating the good practices and values of entrepreneurship, improving business community or creating a basis for further growth and development.

In Romania, rural entrepreneurship can acquire a striking size subject to the continuation of the agriculture reforms and to the existing dialogue between the authorities involved in the reform programs and the farmers.

Two conditions are critical in Romania for the success of the reforms in this field. The first condition is to identify the stakeholders in the reforms process "upwards" [5].

This allows identifying the winners and losers of the changes that may occur. On such ground one can set priorities and, especially, can achieve the stakeholders' involvement in drawing up and then implementing the reforms. The second condition for success is accepting that a "downwards" reform, namely to simply ask for the new legal or institutional framework to be respected without any involvement of the stakeholders would not generate the expected results.

In this context, the reform process in agriculture can generate positive effects and can be effective only through a rural development oriented research, a dialogue with the stakeholders in order to meet an as small resistance from the potential losers as possible.

The reform process should also consider attracting people with entrepreneurial spirit from the urban areas to set up businesses in the local communities, business people with a rural background who maintain the family connections in the rural communities. For them it is easier to recognize the business opportunities, the access to

grants for sustainable rural development. The life quality, the labor cost, the beauty of the scenery, the social or family connections are reasons for them to return to the rural communities.

Other opportunities offered by the rural community are:

- 1) the increase of the regions attractiveness;
- 2) the identification of the regional and local assets and their transformation into entrepreneurial activities;
- 3) the including of the entrepreneurial education in the curricula of the gymnasium and high school and in the labor training programs;
- 4) the generation of the communities support for the entrepreneurial spirit;
- 5) organizing services to support the entrepreneurs in the form of networking systems that would provide resources such as technical assistance and training, access to capital, land and buildings or legal assistance;
- 6) connecting the rural entrepreneurs to regional, national, international markets so that they do not depend only on a local, relatively stagnant market;
- 7) stimulating innovation and technology support expansion [4].

The discussions carried out with the people in the communities with economic problems and especially those in the rural areas are meant to highlight the particular problems and shortcomings faced in order to convince the authorities to give them more support, more public resources. Unfortunately, such an approach cannot have any chance of success, especially when government resources are not too high and when the communities voice counts doesn't weigh much in the redistribution of public money.

Moreover, such an approach prevents people in the community to see the opportunities they have and that they can turn into economic advantages. Even in the poorest rural communities it is possible to achieve an "inventory" or a map of some assets - human, physical, social, physical or financial - that can be used to attract the interest of some entrepreneurs looking for opportunities to improve their business.

Entrepreneurs usually make decisions by themselves but their organization must be formal and flexible in order to be able to react quickly to the changes imposed or to the new opportunities. They must be linked to the resources and the markets outside their own community also by using information technology, electronic commerce or by applying some collaborative

sector or geographical marketing strategies to enable and develop interactions and entrepreneurial exchanges in the local, regional or even foreign communities.

Of course, these things need technical assistance and training that would increase the awareness of the isolated entrepreneurs of the importance of accessing larger markets for their products and services.

The major advantage to encourage entrepreneurship and innovation in the agricultural and

food industries is given by the existence of free land in the rural area, suitable for business start ups, provided the requirements of the sustainable development are respected.

But for a longer time horizon, rural development can be understood and practiced only in terms of sustainable development programs, tools and mechanisms aimed to promote sustainable agriculture in Europe.

*The association Center for Health Research and SADC Consulting Expert have finished the project "Entrepreneurship in Rural Areas", co-financed from the European Social Fund through the Sectoral Operational Program Human Resources Development 2007-2013 [9]. The aim was to promote the financing of long-term sustainability of rural areas in terms of human resource development and employment, the project covering the rural part of Bistrita-Nasaud County.*

*The nonrefundable financial assistance amounted to 2,088,766 RON. The project lasted for two years, engaging 100 people from 18 villages: people looking for a job, farmers, unemployed or housewives who have benefited from programs of counseling, labor mediation and active employment measures. Of these, 60 took part in training programs, 59 with a bachelor's qualification as an assistant manager, public relations assistant or having entrepreneurial skills. Of the 60 trainees, 10 were able to obtain a job.*

*"What is more important for us, beyond the results, the monitoring indicators and the projects submitted by the Managing Authority or the European Social Fund, is that this project is trying not only to provide certain skills to the participants, but rather to change their mentality into a positive and active attitude regarding their status on the labor market. The biggest expectation at the completion of this project is the professional and personal development of the participants", said the project manager.*

Rural entrepreneurship is therefore a component of what today means a broad perspective of the rural development, a modern, coherent approach, through development programs with the application of some collaborative strategies, given the opportunities offered by the local communities. The success of a rural sustainable development project depends on the opportunities offered by the rural areas, the stakeholders and the parties involved, from the design phase and ending with the execution and implementation stages. One must not forget that the level of rural education, the community involvement, the financial and material resource allocation, the environmental protection, the fundamental problem of our days, are all factors that influence the business environment in rural areas.

The study carried out indicates that the level of education in rural areas has improved, but at a very slow pace, 2.3% of the population has higher education, 23.4 secondary education, 33.2% vocational, 34% gymnasium, 5.6 primary education.

In this context the following aspects are relevant:

- the dropout rate in rural areas has decreased slightly in all levels of education, but in relation to urban areas it still remains high;
- the number of the agricultural high schools in the last decade has seen a downward trend (from 2511 graduates in 2009 to 1828 in 2014) [1].

The low attractiveness of the agricultural sector, the low interest of students towards vocational schools in the agricultural field are some of the causes that led to the lack of managers and entrepreneurs in rural areas. Continuous training courses are in an early stage of activity, which ranks Romania on a negligible place in the European Community [2].

The training level mentioned above justify the low number of SME's involved in the development of rural agricultural and non-agricultural activities.

The success of rural development projects can not be achieved without a cooperation between public authorities and private sector organizations. Public-private partnerships must be set up in order to develop local cohesive strategies for a competitive and sustainable development.

Among the non-agricultural active companies at national level, only 19.1% operated in the agricultural sector in year 2014. The study shows that the companies density per 1,000 inhabitants in rural areas was of 9.84 as compared to 25.66 per 1,000 people nationwide.

The analysis of the micro-enterprises in rural areas indicates a reduced financial ability from the part of the potential entrepreneurs. Without tools and mechanisms for financial and material support of the rural development programs they have no chance of success. The issue of financing a business is less accessible in the rural areas as it requires high crediting costs, interest, fees, commissions, etc.

The partnerships that are to be formed with the support of the National Program for Rural Development 2014-2020 should offer such tools and mechanisms to support such initiatives.

The management knowledge, the specific knowledge of environment management allow to a significant degree the separation of the approaches that give obvious results from the ones that lead to unsatisfactory results in rural areas.

The entrepreneurs and managers have the mission to identify the risks in order to improve the economic activities of the rural communities but also to create grounds for further growth and development.

When the risk causes are analyzed and understood from the very forecasting stage of a business in the agricultural field, then mechanisms can be built to avoid the risk causes and to avoid the risk but not to treat its effect. An entrepreneur with good managing skills who follows constantly and coherently the rural sustainable development, shall always have an advantage in identifying the risks and shall contribute efficiently to the increase of the life standards in the rural communities.

Given this context, rural entrepreneurship must pursue coherently and systematically the rural development, must identify the risks of increasing economic productivity and, on this basis, it must raise the standard of living in rural areas.

Attention and resources should not be focused only on agriculture or irrigation, but also on infrastructure, micro non food industries, allocating human, materials, water resources and waste water management. The issue of agriculture, the issue of forestry or livestock are no longer approached separately but everything fits into a natural resource management within sustainable production systems, integrated with human capital development, infrastructure and social development in strategies and programs of rural development.

The National Program of Rural Development 2014-2020 covers the entire territory of Romania, it is organized in administrative – territorial units and it includes 5 bio-geographical regions (Sten, Pontic, Pannonian, Continental and Alpine) of the total 11 in Europe.

**The National Program of Rural Development 2014.** The EU rural development policy for the period 2014-2020 is in line with the objectives of the Europe 2020 strategy and the objectives of the Joint Agricultural Policy, in pursuit of three strategic long term objectives:

- stimulating the competitiveness of agriculture;
- ensuring a sustainable management of the natural resources and fighting against climate change;
- favoring a balanced territorial development of the rural communities in particular by supporting the local economies, creating and maintaining jobs [3].

Romania's rural development strategy for the next four years is part of the reform and development context proposed by the EU. Following the general lines stipulated by this strategy, Romania aims at

supporting in a sustainable and intelligent manner the economic and social development of rural areas. The economic and social imbalances between the development levels of different regions of the country, but also between rural-urban residence environments, call for active policies to ensure concurrent economic development, social welfare and environmental protection. Such policies, which give grants for social - economic development of the rural areas, are set out in the National Rural Development Programme 2014 - 2020 (RDP), focusing on:

- Organic productions (for bio / organic / green products) and their certification including for small farmers or large farms that sell in hyper-markets;
- Increasing the attractiveness of regions;
- Identifying the regional and local assets and turning them into entrepreneurial activities;
- Including the entrepreneurship education into the curricula of secondary and high school education and in the training programs for the labor force;
- Generating community support for entrepreneurship;
- Organizing services to support the entrepreneurs in the form of networking systems that provide resources such as technical assistance and training;
- Facilitating the access to capital, land and buildings or to legal assistance;
- Connecting the rural entrepreneurs to the national, regional and international markets - so that they do not depend only on a local market;
- Stimulating innovation;
- Extending the technological support.

The RDP (Rural Development National Program) 2014-2020 stipulates such grants policies for social-economic development in rural areas. Investors have 9.85 billion euros available as grants for investment projects that must be efficient and cost efficient as per the European standards [3].

Even though there is no universally applicable recipe for rural entrepreneurship, there are many successful examples. A good example is the program carried out in the period April 2014 - September 2015 with 6.36 million RON money from the Social Fund. 5% of this amount was the contribution of the partners (SC MPA SRL Sibiu, EUROED Association, the Association of Human Capital and BPI SRL Italy and Inceptus Romania în association.) [6].

**Rural Force** project targeted 940 people in the counties of Ilfov, Covasna, Brasov, Sibiu, Alba, Mures, Harghita, Cluj, Bistrita Nasaud, Maramures, Salaj, Bihor and Satu Mare. Those who wanted to join had to be looking for a job, to be inactive or engaged in subsistence agriculture. The courses were opened for people who had turned 18 and who had completed at least 10 classes.

The project included courses of entrepreneurial skills (240 participants), computer skills (112 participants) English courses (60 participants).

440 people were able to certify their skills in the areas in which they worked. Moreover, a number of about 140 people benefited from services of personnel placement and found a job.

"In rural areas there aren't many companies that can hire them, but we found them jobs especially in trade, timber industry and constructions", declared the representatives of EUROED Association for WALL-STREET.RO who managed to hire 44 people. The carpenters, joiners, electricians, builders and plumbers were at large demand. "We found jobs both for young people, but especially for people aged 40-45 years, even above," declared the representatives of EUROED Association.

The main priorities of rural development within RDP in the period 2014 – 2020 are as follows:

- Increasing sustainability, modernization and strengthening the farms by opening the market and processing the agricultural products;
- Supporting young people to settle in so that younger generations of farmers are formed and encouraged;
- Attracting investments in the rural areas and creating new jobs with the precondition of developing the basic rural infrastructure and implicitly the rural area in general;
- Encouraging the expansion of rural economy through the creation and development of SMEs in the non-agricultural sectors of the rural areas;
- Supporting LEADER approach for encouraging the social-economic development in rural areas, the responsibility being placed on the local communities.

The LEADER approach, through the cross jurisdiction of this program, enhances the diversification of rural economy, the competitiveness, the poverty fighting through increased life quality and reduced social exclusion. It offers new opportunities to improve the organizational skills of the local administrations, a development based on the identification of local needs, the capacity to implement local development strategies taking into account the conservation of rural heritage.

Entrepreneurship in rural areas can take different forms by diversifying the use of non-agricultural resources available through entrepreneurial combinations: from industrial applications to consultancy, from tourism to providing conditions for sports and recreation or training, to activities of small commerce in small local shops or online, offering products, services or business opportunities in villages, business ideas and jobs announcements jobs in the countryside.

**Conclusions.** Even though unemployment rates, education levels and public-private partnerships are more reduced in rural areas, there are opportunities to create new jobs through various economic activities, either agricultural or not. But we must not lose sight of the fact that during the coming years many agricultural activities are expected to undergo transformations meant to increase their efficiency and thus to decrease the employment rate in the agricultural activities. It is therefore quite likely that the problem of unemployment in rural areas to increase in the coming years.

Even though the countryside offers many natural opportunities and advantages for investment and for developing lucrative economic activities, the rural population appears to still have great reservations in dealing with banks. Given the fragmentation of the agricultural holdings and the delay in setting up a land market, the value of this asset remains very low and thus less advantageous to be used as collateral accepted by the crediting institutions.

The low level of human capital development in rural areas as compared to urban areas hampers the manifestation of entrepreneurship. Adapting the school

curricula to the specific conditions of different areas is a prerequisite for improving this aspect that can be accomplished through a more pragmatic involvement of both central authorities (Ministry of Education, Ministry of Agriculture) and local authorities.

The leaders elected in the rural communities (mayors, councilors, etc.) do not always have sufficient managerial and organizational knowledge, especially in the context in which they would expect to mobilize community support for encouraging entrepreneurship. The central authorities can compensate to some degree the lack of expertise in local government, without impeding the necessary financial and administrative decentralization of the country.

The lack of critical infrastructure (road networks, water piping, electricity, sewerage, waste water processing, gas etc.) is quite frequently another issue that hinders the development of economic activities through increased business costs, thus reducing the potential competitiveness. The involvement of the central authorities is thus even more justified as the local authorities fail to be effective in attracting and using the structural funds available for Romania.

If the above mentioned issues are ignored in the coming years, the disparities between rural and urban areas shall increase, and the migration of working-age population to other countries shall intensify. We must be aware that addressing these issues can not bring about immediate spectacular results, primarily due to the limited financial resources available to Romania and the factors of cultural and educational nature.

Within 6-10 years, a government strategy implemented consistently, focused on encouraging rural entrepreneurship and creating new jobs may bring about favorable results. As a result, the income of rural residents will grow in a sustainable way and, on this basis, the living standards in rural areas will improve.

The development of such a strategy requires the awakening of the central administration institutions that elaborate policies in the fields of agriculture, public finance, labor and social protection, education, public administration and environment.

Isolated projects and programs of such institutions can only produce isolated results and wasted resources. A coherent approach would allow the formulation of priorities and eliminate the barriers to private initiative.

A government strategy that would encourage entrepreneurship is the approach used by Poland, strategy that is an example of success being focused on five priorities:

- 1) helping the private sector to identify opportunities for investment;
- 2) improving the quality of education by adapting the training of rural people to the specific of the area and to the demands of the potential investors and entrepreneurs;
- 3) increasing the quality of public administration in rural areas;
- 4) modernization and expansion of critical public infrastructure in rural areas;

5) providing technical assistance to rural communities, so that to identify and coordinate the works of public investment.

**Conclusions drawn from the research and prospects for further investigation/** Of course that there are other approaches that can be built as well, with different projects, depending on the specific characteristics of each country or region

and on the interests that need to be promoted. But whatever the approach taken, the success or failure of a strategy to encourage rural entrepreneurship is measurable in the number of new jobs created, the growth of household income, the number of enterprises established and last, but not least, in the positive differences in the living standard of the people in rural areas.

#### LIST OF LITERATURE SOURCES

1. Institutul Național de Statistică - Sistemul educațional. Date sintetice, 2015;
2. Ghid pentru demararea unei afaceri în mediul rural ([www.ruralactiv.ro](http://www.ruralactiv.ro));
3. Programul Național de Dezvoltare Rurală 2014 – 2020/versiunea oficială I – 1 iulie 2014 ([www.madr.ro/.../dezvoltare-rurala/programare-2014-2020](http://www.madr.ro/.../dezvoltare-rurala/programare-2014-2020));
4. Planul de acțiune pentru antreprenoriat 2020 – "Relansarea spiritului antreprenorial";
5. [http://www.madr.ro/docs/dezvoltare-rurala/Descrierea\\_generala\\_a\\_situatiei\\_economice\\_actuale\\_4\\_11\\_2013.pdf](http://www.madr.ro/docs/dezvoltare-rurala/Descrierea_generala_a_situatiei_economice_actuale_4_11_2013.pdf)
6. <http://www.afacerilacheie.net/articole/articole-afaceri/somerii-din-mediul-rural-au-sansa-sa-devina-antreprenori-cu-rural-force-3015.html>;
7. <http://documents.worldbank.org/curated/en/2015/11/25248783/address-challenge-inclusion-1997-annual-meetings-james-d-wolfensohn>;
8. [http://www.insse.ro/cms/files/statistici/comunicate/pib/a14/pib\\_trimIVr2014\\_1.pdf](http://www.insse.ro/cms/files/statistici/comunicate/pib/a14/pib_trimIVr2014_1.pdf);
9. <http://gazetadecluj.ro/tag/asociatia-center-for-health-research/>.

#### REFERENCES

1. Institutul Național de Statistică - Sistemul educațional. (2015) Sistemul educațional Date sintetice [in Romanian].
2. Programul Național de Dezvoltare Rurală 2014 – 2020/versiunea oficială I – (2014) 1 iulie 2014 ([www.madr.ro/.../dezvoltare-rurala/programare-2014-2020](http://www.madr.ro/.../dezvoltare-rurala/programare-2014-2020)) [in Romanian].
3. Planul de acțiune pentru antreprenoriat 2020 – "Relansarea spiritului antreprenorial"[in Romanian].
4. Retrived from [http://www.madr.ro/docs/dezvoltare-rurala/Descrierea\\_generala\\_a\\_situatiei\\_economice\\_actuale\\_4\\_11\\_2013](http://www.madr.ro/docs/dezvoltare-rurala/Descrierea_generala_a_situatiei_economice_actuale_4_11_2013) [in Romanian].
5. Retrived from <http://www.afacerilacheie.net/articole/articole-afaceri/somerii-din-mediul-rural-au-sansa-sa-devina-antreprenori-cu-rural-force-3015.html> [in Romanian].
6. <http://documents.worldbank.org/curated/en/2015/11/25248783/address-challenge-inclusion-1997-annual-meetings-james-d-wolfensohn>
7. Retrived from [http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/files/ius-2015\\_en](http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/files/ius-2015_en) [in English].
8. Retrived from [insse.ro/cms/files/statistici/comunicate/pib/a14/pib\\_trimIVr2014\\_1.pdf](http://www.insse.ro/cms/files/statistici/comunicate/pib/a14/pib_trimIVr2014_1.pdf);<http://gazetadecluj.ro/tag/asociatia-center-for-health-research/>[in Romanian].
9. Retrived from [http://www.insse.ro/cms/files/statistici/comunicate/pib/a14/pib\\_trimIVr2014\\_1.pdf](http://www.insse.ro/cms/files/statistici/comunicate/pib/a14/pib_trimIVr2014_1.pdf);<http://gazetadecluj.ro/tag/asociatia-center-for-health-research/>[in Romanian].