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## HUMAN CAPITAL AND SUSTAINABILITY OF THE EUROPEAN UNION RURAL AREAS

### Abstract

*Sustainable rural development is one of the priorities of the European Union, given that rural areas make up 91% of the total territory, providing food products for the urban and rural population. Human capital of rural areas is an important factor of long-term rural development. Problems such as rural depopulation, aging of the rural population, position of women and youth as labor force, inadequate qualification structure of the rural population, represent constraints on the future development of these areas. The aim of the paper is to analyze the age, gender and educational structure of the rural population and to notice the obstacles to sustainable rural development in the countries of the European Union, since human capital is an important determinant of the sustainability of rural areas.*

**Key words:** human capital, sustainable development, European Union, rural areas

**JEL klasifikacija:** J21, J43, I25, O18

## ХУМАНИ КАПИТАЛ И ОДРЖИВОСТ РУРАЛНИХ ПОДРУЧЈА ЕВРОПСКЕ УНИЈЕ

### Апстракт

*Одрживи рурални развој је један од приоритета Европске Уније, с обзиром да рурална подручја чине 91% укупне територије, при чему обезбеђују прехранбене производе за урбано и рурално становништво. Хумани капитал руралних средина, важан је фактор дугорочног руралног развоја. Проблеми као што су рурална депопулација, старење руралног становништва, положај жена и младих као радне снаге, неадекватна квалификациона структура сеоског становништва, представљају ограничења будућег развоја ових подручја. Циљ рада је анализа старосне, полне и образовне структуре руралног становништва и сагледавање препрека одрживог руралног развоја на нивоу Европске Уније, с обзиром да хумани капитал представља важну детерминанту одрживости руралних средина.*

**Кључне речи:** хумани капитал, одрживи развој, Европска Унија, рурална подручја

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## Introduction

The rural areas of EU-28 are making up for 91% of the entire territory and 56% of the entire population. Such areas generate more than 15% of gross value added and employ 13% of the working-age population. The primary goal of such environments is the food product production for rural and urban population, as well as the production of industrial raw materials. Thus, rural development is of crucial importance for the EU and one of the key priorities as well (Tomasz, Edward & Mariana, 2016).

Rural development policy in the EU has set a sustainable framework for the future of the rural areas of Europe as its goal and it is closely connected with the improvement of conditions in the countryside, which includes the aspects of housing, living environment, infrastructure, communication, employment possibility and land management. Such actions are specifically important for many countries of Central and Eastern Europe, with rural depopulation in mind (Pašakarnis, Morley & Maliene, p. 703, 2013). The final goal of such actions is the improvement of the human capital in rural areas, having in mind that human capital is a very important determinant of sustainable rural development. Human capital enables innovation generating and the integration of new methods into economy of the rural areas (Marinas, 2015).

Human capital is an important factor of rural development, whereby, qualification, age and gender structure of the labor force of such areas make up the entire key determinant of a long-term sustainable growth. The employment problem of women, elderly and youth, the rural depopulation problem, as well as the educational services inadequacy in rural areas are also some of the problems of the rural areas in the European Union and an obstacle for sustainable growth. The main goal of this paper is the analysis of gender, age and qualification structure of rural population through observation of the limitation of future development of rural areas at the European Union level.

## Basic determinants of rural area sustainability

Three dimensions are crucial when it comes to rural area sustainability: economic, ecologic and social. Criteria, indicators and goals that are in close connection with the aforementioned dimensions are interdependent and they overlap. For example, economic decisions farmers make are affecting ecologic and social components, while living environment preservation is a precondition for long-term economic potential of rural areas (Siudek & Vashchyk, 2014).

The Common Agricultural Policy of the European Union for the period 2014-2020, in the rural development area, anticipates three key goals: the improvement of agricultural competitiveness; sustainable management of natural resources and climate actions; balanced territorial development of rural areas, including incenting and maintaining employment rate (European Commission, 2013). Rural development priorities of the EU listed here are accentuating the importance of all three dimensions of rural area sustainability.

An important determinant of rural area economic growth is the economic dimension of rural development sustainability which includes both the characteristics of agricultural and non-agricultural sectors in rural areas, as well as the labor market. Yet, both ecologic

and social factors may have a drastic effect on the economic growth of such areas, and they might represent important constraints. Economic component of sustainable rural growth refers to the necessity of living environment management in rural areas, in order to preserve the elements of a natural environment. Namely, through their economic activity in the countryside, people influence the worsening of the living environment quality, wherefore the availability of contemporary methods and environmental protection technologies in rural areas play an important role in the slowdown and elimination of such negative processes (Sobczyk, p. 122, 2014). The social dimension refers to people and countryside living conditions and it plays an important role in the accomplishment of sustainable rural growth. Key indicators which are connected with this component are: employment rate, educational level, internet access (Hull, 2008).

The problem of rural growth sustainability of the European Union includes three components – economic, ecologic and social. Less favorable economic parameters are characteristic for the rural environment of Eastern and Central European countries when it comes to the members of the European Union, while the most advantageous economic indicators occur in Western and Southern European countries. Besides that, the worst ecologic parameters are possessed by some of the older members of the EU, while the question of rural area social growth in the EU is a bigger problem for some of the newest members.

According to a certain research (Siudek & Vashchuk, p. 106, 2014), taking into account the economic component of the rural areas of the EU, the most developed countries in the period 2000-2012 had been: Luxemburg, the Netherlands, Slovenia, France and Malta, while the least developed were Lithuania, Romania, Slovakia, Poland and the Czech Republic. From the ecologic aspect, the countries with the best parameters were: Latvia, Finland, Austria, Sweden and Estonia, while the rural areas of the Great Britain, Spain, France, Poland and Malta had the worst indicators. Also, the highest level of social growth in the rural area framework of the EU was recorded in Luxemburg, Denmark, Belgium, Sweden and the Netherlands, while the lowest was recorded in Romania, Croatia, Poland, Lithuania and Greece.

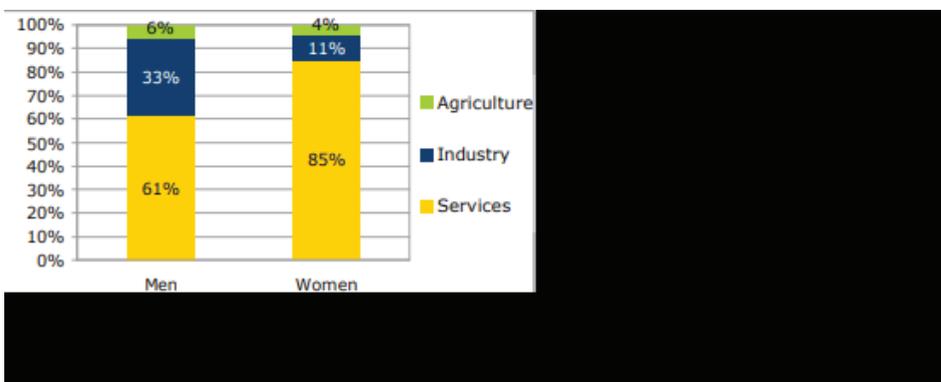
## **The position of women labor force in the rural areas of the EU**

Women are characterized with the lower rate of economic activity, especially in the rural areas. Even when they are working, they receive lower salaries for their work and they have lower representation in the decision-making positions. The average difference in men and women salaries in EU-28 is 16.4%. For example, in rural areas of Spain, the percentage of women which earn between 400 and 1000 euros is higher (56.8%) than the percentage of men, while men are more dominant when it comes to average salary between 1000 and 1800 euros (Alonso & Trillo, p. 153, 2014). In agriculture, which plays an important role from the employment aspect in the rural areas, especially for newer members of the EU, women are rarely seen on managerial positions and they manage smaller agricultural holdings.

The employment rate is generally higher for men than it is for women. On the EU-27 level, 76% of men and 62% of women were employed in the year 2009, while in the year 2012, the percentage of women was 62.4% and was 76.4% for men. Such gaps

are approximately the same for each separate regional type (predominantly rural, mixed and predominantly urban) as it is for EU-15 and EU-12 (Graph 1). In predominantly rural areas of the EU-27, only 61% of women aged between 20 and 64 was employed in the year 2009. The situation is even more unfavorable in EU-12 (58%) than it is in EU-15 (63%). The lowest employment rates of women in predominantly rural areas were recorded in Italia (48.6%), Greece (50.9%), Spain (51.6%) and Hungary (52.2%). Contrary to that, Austria (70.4%), Germany (71.5%), Denmark (73.6%) and Sweden (74.6%) have the highest employment rates of women in predominantly rural areas. The employment rates of men in predominantly rural regions are notably higher than when it comes to women. Hungary (65.1%), Lithuania (66%), Latvia (67%) and Estonia (70.2%) have the lowest rates, while Denmark (80.4%), Germany (81.8%), Austria (82.1%) and the Netherlands (86.9%) record the highest employment rates of men in rural areas, everything above the national targets (European Commission, 2011).

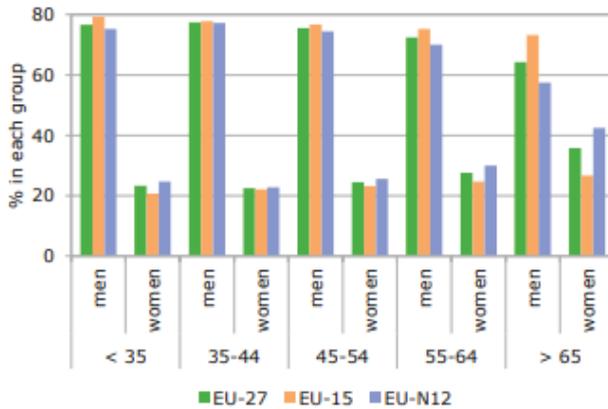
Graph 1 - Employment rate for men and women by type of region (2009)



Source: European Commission (2011). Agriculture and Rural Development. Rural areas and the Europe 2020 strategy employment, p. 3

In agricultural holdings of the EU, the majority of managers, i.e. the ones who are responsible for financial questions and production are men (Graph 2). Only in the oldest age group (65 years and more) women make up for more than 30% of farm managers, especially in the newer members of the EU. This is connected with longer life expectancy of women and it is especially noted in the Baltic countries and some Eastern European countries.

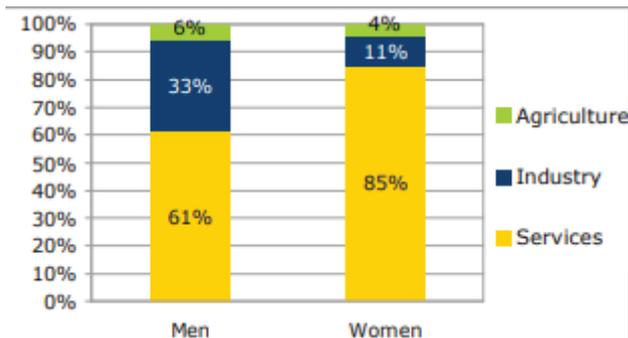
Graph 2 - Farm managers by sex and age groups in 2010 (in% in each group)



Source: European Commission (2013). Agriculture and Rural Development. Structure and dynamics of EU farms: changes, trends and policy relevance, p. 9

In 2011, agriculture provided for 4% of the employment of women in EU-27 (Graph 3), while for men this sector played a slightly more important role. In the utmost extent, women are employed in the service sector (85%). However, when it comes to the employment of women in agriculture, it varies from 34.5% in Romania up to less than 1% in Belgium, Denmark, Malta, Sweden and the Great Britain (European Commission, 2012). Also, rural areas of newer EU members are still dependent from agriculture to a certain extent, where Romania significantly stands out. In Romania, agriculture contributes to 30% of the total employment rate, which is 6 times higher than average in EU-28. Rural environments of Romania are characterized by economic deprivation and educational backwardness, which demands considerable investments into improvement of human capital quality of such regions, in order to eliminate the obstacles for sustainable rural growth (Tigu, Marinas & Valimareanu Mircioi, 2015, p. 357).

Graph 3 - Employment of women and men by sectors of the EU, 2011



Source: European Commission (2012). EU Agricultural Economic Briefs. Women in EU Agriculture and Rural Areas: hard work, low profile, p. 3

In 2008, the European Parliament brought the Resolution of Women and their Position in the Countryside, in which, among other, countries are urged to:

- In cooperation with the regional and local management, open new possibilities for education and training of women and to orient their policy towards the improvement of basic living conditions for women in the rural areas (health protection, legal protection, right to work, cultural and social activities, decision making);
- Encourage female entrepreneurship;
- Support female unions, models of mentoring and associations of entrepreneurs;
- Support projects which help and counsel during the establishment of innovative companies for primary agricultural production, which will open new working positions, especially for women;
- Develop the legal form of mutual property which will wholesomely respect women's rights and ensure their social protection and recognition of work;
- Give ideological and financial support for unpaid and voluntary work and to warn about the importance of social work of female organizations (Cesar & Broz, 2014);

Greater involvement of women in economic activities of rural areas would ensure more efficient usage of human capital of such areas, decrease in inequality and the improvement of the position of women in the countryside, all of which contributes to bigger possibilities of rural growth sustainability.

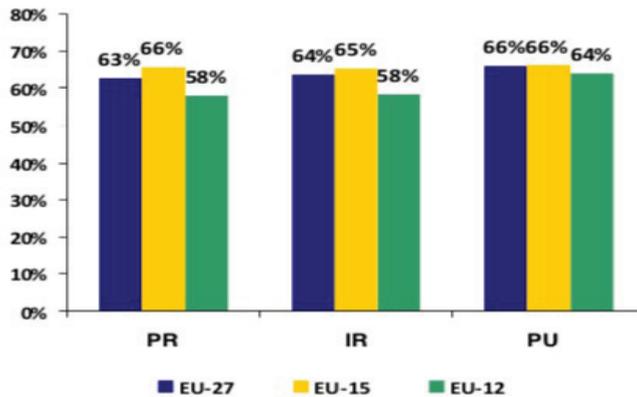
### **Age structure of human capital in rural areas of the EU and the problem of sustainability**

About 30% of farm managers belongs to the age group of more than 65 years of age, which did not change in the period 2005-2010 (European Commission, 2013). However, data shows that older farmers manage smaller farms and that they are not ready for innovation and investment, while the largest farms are being led by middle-age farmers. Many farmers continue to work on their smaller holdings even after the normal retirement age, before giving the land to the younger generation or simply sell it. Young farmers are facing the problem of scarcity of land because the largest parts of the land the retired farmers give to their next generations, usually middle-aged farmers with already developed operations and significant resources, all of which younger farmers lack. The contribution of younger farmers is gradually increasing, especially because of the very restricted access to land.

Some of the reasons why younger people are involved in the agricultural sector are: insecurity and risks which are characteristic for the agricultural sector; rural lifestyle is less appealing to younger people; the price of land and renting are very high in comparison with income; high initial costs; experience and certain skills when it comes to farm management is mandatory (Koszegi, p. 90, 2017). For example, in 2008, in Spain only 38% of people aged from 30 to 49 lived in the same environment in the rural area where they were born, while in 2001 that percentage equaled 44.5% (Alonso and Trillo, p. 151, 2014).

In EU-27, the employment rate of young people for the year 2009 was 64.3% which is under the average rate of 68% (Graph 4).

Graph 4 - Employment rate among young people, 2009 (between 20 and 30 years of age)

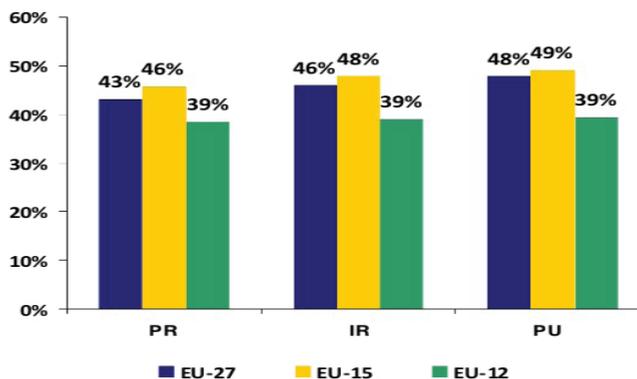


Source: European Commission (2013). Agriculture and Rural Development. Structure and dynamics of EU farms: changes, trends and policy relevance, p. 9

Predominantly rural areas have the lowest employment rates of young people, 62.6% in EU-27, 65.8% in EU-15 and 58.1% in EU-12. Mixed and predominantly urban regions have higher rates, although under the Europe 2020 target of 75%. The employment rate of young people is lower in EU-12 than it is in EU-15 for all regional types. In predominantly rural regions, the lowest employment rate for people between 20 and 30 years of age is recorded in Italy (51.5%), Romania (52.8%) and Hungary (53%). The Netherlands (89.2%), Austria (80.1%) and Denmark (76.9%) had the highest employment rates of young people in the year 2009 (European Commission, 2011).

Also, elderly people from 55 to 64 years of age were hit by very low employment rates. Such rates in the year 2009 was only 46%, whereby 43.2% in predominantly rural regions, 45.9 in mixed and 48 in predominantly urban regions (European Commission, 2011).

Graph 5 - Employment rate for people aged 55-64 (2009)



Source: European Commission (2011). Agriculture and Rural Development. Rural areas and the Europe 2020 strategy employment, p. 7

The lowest employment rate of elderly people was recorded in predominantly rural regions on the EU-12 level (38.6%). On the EU-15 level (45.7%) of the elderly people were employed in the predominantly rural regions in the year 2009, while mixed and predominantly urban areas had slightly higher rates (47.9% and 49.1%, respectively). On the country level, the lowest employment rates of elderly people were recorded in Hungary (29.8%), Poland (32.3%), Slovenia (32.7%) and Italy (35%). Contrary to that, Sweden and Estonia record the highest rates (68.5% and 59.6%, respectively) although they still have lower rates than for other age groups.

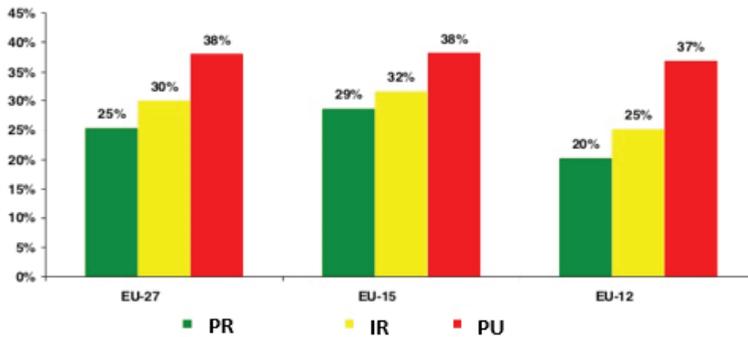
## **Education as a factor of sustainability of the rural areas in the EU**

Human capital of rural areas is consisted of available skills, competitiveness and educated labor force and it represents a key driving force of growth, due to the fact that it contributes to the regional knowledge base and it supports innovative processes, entrepreneurship and productivity. The availability of educated and qualified labor force in the rural areas could generate the increase in income and economic growth of such area (Marinas, p. 493, 2015).

Rural areas of the European Union are faced with a challenge – creating sustainable jobs for highly-qualified labor force. In this respect, the gap between urban and rural areas continues to expand. Although rural areas make up to a considerable amount of the total EU territory, the per capita income in such areas is barely higher than the half of the income in urban areas. This makes attraction and retention of qualified individuals very hard (Neacșu & Bâldan, 2009). Such problems are especially accentuated within the newer members of the European Union.

The highest number of people aged between 30 and 34 years of age with high education is present in predominantly urban areas (around 5.4 million), which represents 38% for this age group (Graph 6). In mixed regions, that number is 3.5 million, or 30% of the population, in the year 2009. Around 25% of the population aged between 30 and 34 years, in predominantly rural areas, are people with high education, i.e. around 2.1 million people. The lowest percentage of people with high education aged between 30 and 34 in predominantly rural areas can be found in Romania (11.7%), Czech Republic (15.1%) and Hungary (17.1%) in EU-12, and for EU-15 Portugal (16%), Italy (17.7%) and Austria (18%), while the highest rates were recorded in Ireland (44.7%) and Finland (42.4%). On the EU-12 level, the highest rates were recorded in Lithuania (36.9%) and Estonia (32.5%) (European Commission, 2011).

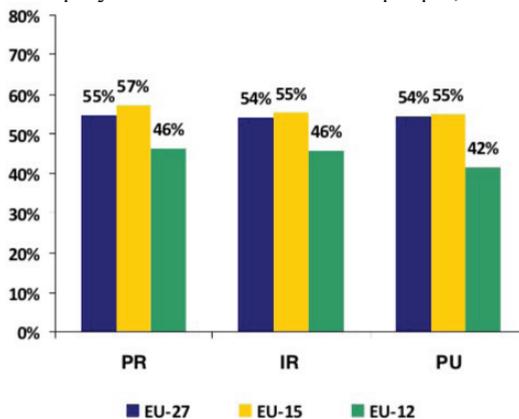
Graph 6 - Population with higher education by region, 2009 (30 to 34 years)



Source: European Commission (2011). Agriculture and Rural Development. Rural areas and the Europe 2020 strategy: education, p. 6

The data shows that people with lower secondary education also have lower rates than average (Graph 7). On the EU level, this rate is 54% in the framework of three different regional types for the year 2009. The employment rate of low-qualified people is higher on the EU-15 level than it is on the EU-12 level (55.6 and 45.5%, respectively). Predominantly rural, mixed and predominantly urban regions on the EU-15 level and EU-12 level had average rates in the year 2009. Slovakia, Hungary and Lithuania recorded lowest employment rates in that period when it comes to low-qualified people in predominantly rural areas (28.1%, 35.4% and 36.1%, respectively), while the highest rates in this area were recorded in Portugal, the Netherlands and Denmark (72.5%, 66.2% and 65%, respectively). The employment rates for such workers in Czech Republic, Slovakia, Hungary, Lithuania and the majority of Poland were under 45%. Sweden, Denmark and the Netherlands, as well as some parts of the Great Britain and Germany have the employment rates of low-qualified people above 60% (European Commission, 2011).

Graph 7 - Employment rate for low-skilled people, 2009 (20-64 years of age)



Source: European Commission (2011). Agriculture and Rural Development. Rural areas and the Europe 2020 strategy employment, p. 8

According to a certain research (Zaharia & Oprea, p. 102, 2013) which involves the period 2000-2011 and all regional types on the EU level, the positive relationship between education (i.e. primary, secondary and high education) and the employment rates. It can be concluded that the employment rates of people with primary education is the lowest in the EU, while the employment rates of people with high education is the highest, in the observed period. Also, the employment rates for workers with high education is recorded with the largest increase in Bulgaria from 75.2% in 2001 to 86.1% in 2008 and in Spain, from 75.3% in 2000 to 82.5% in 2007. Germany has made a significant increase of such rate, which had been 82.8% in the year 2005 and 87.6 in the year 2011 which was the highest employment rate of a certain population in the entire European Union. It was also noted that employment rates of a certain population with secondary education has slightly lower values when compared with workers with high education. The largest rates were recorded in Spain (62.1%), Bulgaria (64.8%), Germany (76.3%) and Sweden (80.4%), while the employment rates with primary education were lower from both secondary and high education workers. As such, the highest rates in the analyzed period were recorded in Sweden and they do not surpass 70%, while the lowest were recorded in Hungary which had been under 40% during the entire analyzed period.

EU strategy in the area of education and training for the period 2010-2020 emphasizes the goal of at least 40% people of high education aged between 30 and 34 years. In the focus of the strategy is the ensuring of equality and social cohesion throughout offering of equal possibilities and fighting against any kind of discrimination (Gavrila, Tulbure & Marghitan, p. 46, 2016). In this respect, as a key goal stands out the creation of an attractive system of scholarships which would allow equal access to high education for all young people, especially for those from rural areas.

Education and training are the key factors of positive influence on the quality of life when it comes to people in the rural areas. Research data shows that rural areas lack educated labor force, while some of the Eastern countries are still combating the illiteracy of the rural population. As a result, the supply of the labor force is insufficient, the employment rates are low, the possibilities of employment are bad and the investment rates are small. The employment rates in some of the rural areas of Western Europe and all rural areas of Eastern Europe, still, to a certain extent, depends from agriculture. Low income and seasonal economy of work bear a potential risk of poverty and social exclusion (Strano, 2012).

Investments in the development of human capital should increase the quality of human capital of rural areas especially among the newer members of the EU, which would support both competitiveness and productivity, which are very important preconditions of economic growth and the decrease of disparity between rural and urban areas and fulfillment of key goals of the EU rural growth policy.

## Conclusion

Human capital of rural areas can be a limiting factor of rural growth sustainability, given the problems of the rural depopulation, aging of the rural population, insufficient involvement of women and youth in the rural economy, inadequate qualifications of the rural population, with which even the rural areas of the EU are having problems with, with significant differences between the member countries.

Statistical data points out to lower employment rates of women in the rural areas, lower representation on the decision-making position, as well as the fact that they are paid less than men are. However, Strategy Europe 2020 does not anticipate strengthening of the gender equality as its goal. Even though the goal when it comes to employment rates is 75% for both men and women, a different starting point was not anticipated, having in mind that in year 2012, the employment rates of men were 74.6% and for women only 62.4%. The lowest employment rates of women were recorded in Hungary, Lithuania, Latvia and Estonia, while the highest employment rates were recorded in the Great Britain and Germany.

The problem of predominantly rural areas is the employment of youth as well. The employment rates of youth aged between 20 and 30 years is around 60%, whereby this rate is especially low in Italy, Romania and Hungary and higher than average in the Netherlands, Austria and Denmark. On the other hand, even the elderly people aged between 55 and 64 years are facing the same kind of problem, having in mind that the employment rate was lower than 50% in all regions of the European Union, whereby this rate is especially unfavorable in predominantly rural areas, which indicates to the position of both young and elderly people in such areas and the necessity of a solution for this problem by creating certain projects and actions in the framework of the common agricultural policy of the EU.

Besides that, the data shows that the lowest percent of population with high education is present specifically in the rural regions, in comparison with mixed and predominantly urban regions, whereby this problem was specifically pointed out in Romania, Czech Republic and Hungary, while some more positive examples on the level of the European Union can be found in Ireland and Finland.

The improvement of quality of the rural area human capital of the EU, through ensuring better conditions for the education of the rural population, could bring to the improvement of the growth potential in such areas. Besides that, improvement of usage of human capital of rural areas, through larger involvement of women and young people in rural economy, could enable larger capacities for growth and development of rural areas in the EU.

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