

CONSIDERATIONS ON THE MAIN FEATURES OF THE AGRICULTURAL POPULATION IN THE EUROPEAN UNION

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Abstract

The paper aimed to analyze the EU-27 population by means of the following indicators: population structure by origin, age, gender, training level, income in member states, emphasizing Romania's position among other countries. In the EU-27 there large differences regarding rural and agricultural population. The main trend is the reduction of agricultural population, but there are countries where it is increasing and states where it is declining. Despite at EU level 5 % of its 504 million inhabitants are working in agriculture, there are states with a higher percentage of agricultural workforce and also with a lower labor percentage. Rural population aging and decreasing number, migration to cities, relatively low training level, gender discrepancies from a country to another, low income per annual working income mainly in the 12 countries which joined the EU in 2004 and 2007 below the EU average income are the major features of the EU-27 agricultural labor. Romania has the highest agricultural population working in small sized farms and the lowest income per farmer below Euro 2,000. The gap between the EU and Romania could be diminished by training, high technologies, implementation of associative forms in agriculture destined to grow up productivity and competitiveness.

Key words: agriculture, characteristics, European Union, labor force

INTRODUCTION

The development of agriculture is highly conditioned by labor force. The number of people working in agriculture, their training level, practical and managerial skills are the key factors which could contribute to agriculture development in the future.

The existing gap between the availability of jobs and the supply of graduates is an important barrier which could affect agricultural labor force in the coming years [6].

Working people in the EU agriculture is different from a state to another regarding age structure, training level, productivity, income and living standard [7, 16].

In this context, it is considered important to analyze what is happening with labor force dealing with agriculture, which is the actual statement and which are the major trends with a deep impact on the future development of agriculture.

MATERIALS AND METHODS

The documentation is based on the European Commission Reports and Eurostat data base and refers mainly to the year 2011, but also to figures recorded in the previous years, used as a comparison reference term.

The opinion expressed in the text belongs to the author and also the paper present other authors' opinion on the same topic, a reason to establish similarities or differences in the subject approached.

The following aspects have been approached: EU population and its distribution by member states, population by living area, population growth rate, population in agriculture by EU member states, origin, age, gender and education level, income by annual working unit (AWU) in agriculture and by farm size.

RESULTS AND DISCUSSIONS

EU population accounted for 502,4 million people on 1 January 2011, 503,7 million people in January 2012 and 504.5 million

people in 2013 including Croatia's population, the last country which joined the EU in July 2013. In 2012 the EU-27 population was by 1.3 million persons higher than in 2011. Compared to the year 1960, when its population was just 402,6 million persons, it registered a substantial increase by the year 2012. [9]

The EU population increased by 0,25 % in 2012 compared to the year 2011. The highest gains were recorded in Germany, United Kingdom, France, Italy, but also in the Netherlands, Spain, Belgium and Sweden.

Table 1. EU-28 Population and GDP/capita in terms of PPS in 2012

Country	Population	Share of the EU-27(%)	GDP/capita in term of PPS*, 2012	Country	Population	Share of the EU-27(%)	GDP/capita in term of PPS*, 2012
Malta	421,364	0.08	86	Hungary	9,908,798	1.95	66
Luxembourg	537,039	0.10	272	Portugal	10,487,289	2.06	78
Cyprus	865,878	0.17	95	Czech Rep.	10,516,125	2.07	80
Estonia	1,324,814	0.26	67	Greece	11,062,508	2.18	79
Latvia	2,023,825	0.39	59	Belgium	11,161,642	2.20	119
Slovenia	2,058,821	0.40	84	Netherlands	16,779,575	3.30	131
Lithuania	2,971,905	0.58	66	Romania	20,057,458	3.95	47
Croatia	4,262,140	0.84	61	Poland	38,533,299	7.59	65
Ireland	4,591,087	0.90	129	Spain	46,704,308	9.21	99
Slovakia	5,410,836	1.06	73	Italy	59,685,227	11.77	100
Finland	5,426,674	1.07	115	United Kingdom	63,730,107	12.56	109
Denmark	5,602,628	1.10	126	France	65,633,194	12.94	109
Bulgaria	7,284,552	1.43	46	Germany	82,020,578	16.17	121
Austria	8,451,860	1.66	129	EU-28	507,069,424	100	100
Sweden	9,555,893	1.85	127		-	-	-

Source:www.europa.eu/about_eu/facts-figures/living [10].

*PPP=purchasing power standard=comparison indicator measuring the price of a range of goods and services relative to income, using a common notional currency called the Purchasing Power Standard

The lowest figures concerning population are in Malta, Luxembourg, Cyprus, Estonia, Latvia, Slovenia and Lithuania whose population represent less than 0,5 % of the EU population (Tabel 1).

The EU population has grown by 2 million people in average per year. The forecasts until 2050 project the following trends: (a) a substantial aging determined by two causes: the lower expectations for births and the higher life expectancy, the highest in the world; (b) a deeper decline in the number of working population because of the decreasing number of young people of 15 years old, (c) an increased number of retired people. Therefore, three major aspects are expected to

The deep decrease of the population was registered in Romania, Bulgaria, Lithuania, Latvia, Portugal, Hungary, Greece, not only due to the low birth rate but mainly to migration.

Distribution of the EU population by member states. Four EU states have more than 54 % of the EU population as follows: Germany 81.8 million inhabitants, France 65,3 million people, United Kingdom 62.9 million and Italy 60,8 million, all together accounting for 270,8 million persons.

dominate the EU demography in the future: longevity, a positive aspect, a declining number of children, a negative aspect and an increased migration from low developed economies to the highest developed ones [2].

EU-27 population by living area. A number of 206,683 thousand persons were living in the urban area, representing 41.21 % of the EU-27 population in 2011. The most numerous population in the urban areas is in Malta (100%), the Netherlands (71%), United Kingdom(71%), Belgium (68 %), Luxembourg (62%) and Cyprus (62%). In the same year 2011, in the rural areas a number of 117.464 thousand persons were living, representing 23.43 %. The most numerous

population in this area was registered in Ireland (73%), Slovakia(50%), Estonia (48%), Hungary (47%), Romania (45%). In the intermediate area, about 177,293 thousand persons representing 35.37 % of the EU-27 population were living in this environment. The most population living in the intermediate area was concentrated in Sweden (56%), Estonia (52%) and Bulgaria (45%). Therefore, the EU population is strongly urbanized because about 75 % people are living in the rural area. In the future, the declining trend is expected to continue so that in the year 2020 it is estimated that the share of population in the rural space will exceed 90 % in 7 EU member states. [8]

In Romania in 2010, rural population accounted 4,427 thousand people, representing 44.42 % of Romania's population. However, compared to the year 2005, when the rural population was 5,361 thousand people representing 54.4 %, the situation is better showing a reduction of population. [4]

Population growth rate in the EU. An important growth was recorded in the urban area +5.2 at 1,000 inhabitants and in the intermediate area +2.2 at 1,000 capita. In the rural area, the trend was a negative one, the population decreasing by -0.8 at 1,000 inhabitants. Therefore, in the rural area, the population will be lower and lower compared to the other areas, especially with the urban one which is more attractive for better paid jobs.

In 2011, the rural population decline was noticed in 18 EU countries, while in other member states it recorded an increase as follows: Ireland +6.1 at 1,000 inhabitants, France +5.1, United Kingdom +2.7, Italy +2, Finland +1.3, Sweden +1.2, Slovakia +0.8, Spain +0.7 and Czech Republic +0.2. [8]

Employed population in agriculture by EU-27 member states. According to the EU statistics, in 2010, the employment accounted for 212.76 million persons, representing 42.43 % of the EU total population.

In agriculture, it was noticed a number of 10.4 million employed people, of which 9,736,100

full time employed (in terms of annual working unit=AWU), representing 92 %. Since the year 2000, agricultural labour in the EU declined by 25 % in terms of AWU.

The share of people employed in agriculture at the EU level is 5 % of its total population. The highest share is registered in Romania (35 %), Poland (14 %), Greece (12 %), Portugal (11%) and Spain (10%). The lowest weight of the population employed in agriculture was recorded in Italy (3.7 %), France (3%), Belgium(1.8%) and United Kingdom (1.4 %).[11]

In Romania, agriculture is characterized by a high number of employed persons, Romania being placed on the top position in the EU-27 from this point of view, followed by Poland, Italy France, Spain and Germany [5].

Table 2. Employed population in agriculture by EU-27 member states in 2010 (thousand persons)

Country	Employed people in agriculture	Country	Employed people in agriculture
Austria	154.00	Lithuania	366.10
Belgium	80.94	Luxembourg	2.64
Bulgaria	754.70	Malta	18.50
Czech Republic	132.75	United Kingdom	0.00*
Cyprus	78.80	Netherlands	213.00
Denmark	78.10	Poland	3,797.30
Estonia	0.00*	Portugal	708.08
Finland	0.00*	Romania	7,159.47
France	1,012.80	Slovakia	0.00*
Germany	763.70	Slovenia	74.71
Greece	706.35	Spain	2,227.02
Ireland	0.00*	Sweden	141.50
Italy	0.00*	Hungary	1,179.47
Latvia	183.20		

Source: European Commission. EU agriculture-Statistical and Economic Information, 2012, Employment in agriculture. Statistical Sources and Applications; *Lack of data. [7].

Structure of occupied population in the rural area by activity sector. In the EU-27, in 2008, about 57.3 % of people were employed in the tertiary sector, 29.1 % in the secondary sector and 13.6 % in the primary one. In 2008, in Romania about 32.6 % people was employed in the tertiary sector, 38.1 % in the primary sector and 29.3 % in the secondary one. A relatively similar

situation was noticed in Bulgaria, Hungary and Poland [15].

Agricultural population structure in the EU by origin. Most of the working labour, more precisely 75 % is represented by family full time work force, 17 % by nonfamily full-time work force and 8 % by part-time nonfamily work labor. Exception: France where about 44 % is full time employed in family farms, Slovakia with 28 % and Czech Republic with 22 %.

Taking into account the legal status, about 97.1 % persons are owners of agricultural holdings and 2.9 % are juridical persons.

Agricultural population structure in the EU by gender. About 50 % of active age persons are women, but only 44 % are employed. There are differences from a country to another. A reduced percentage of employment, more exactly less than 40 % was registered in Italy and Greece, while a high employment percentage was recorded in Finland, Estonia and Lithuania, in the Nordic countries in general (over 48 %).

At EU level, the share of women is 28 %. But, there are countries where women are highly employed like in Romania (34.5 %) and countries where the percentage is very small like Belgium, Denmark, Malta, Sweden and United Kingdom.

In 2011 compared to 2010, the employment rate for women recorded a reduction of -1.3 % compared to -2.1 % total employment rate for women in the EU-27.

About 60 % women are working in the agriculture of three countries: Romania 34.5 %, Poland 18 % and Italy 9 %.

The major problems women are facing in the EU agriculture are: the equal chance on the labor market for getting a job, equal payment for equal work and equal chance for making decisions [14].

Agricultural population structure in the EU by age. The main feature of rural population is aging in the EU, because the number of young people wishing to work in agriculture declines, mainly in Romania and Bulgaria. But, the highest percentage of young people working in agriculture was noticed in Denmark and the Netherlands,

because these two countries are mainly agricultural countries and young people is accustomed to work together with their parents in the farm since their childhood. In Poland and Hungary, agriculture looks to be more attractive than in other countries for young people.

If we compare the situation in Romania and Bulgaria, we can notice that people working in agriculture is very old. In Romania, 66.7 % of working people in agriculture is older than 55 years while in Bulgaria the percentage is higher (70.1 %). Analyzing in more details, one can easily notice that: in Romania, the age structure of the working people in agriculture is the following one: 44.2 % belong to the category over 64 years; 22.5 % belong to the 55-64 years category, 17 % belong to the 45-54 category, 11.9 % belong to the 35-44 years category and 4.4 % belong to the category below 35 years. [15]

Agricultural population structure in the EU by education level. In general, farmers' education level is very low. However, in the EU, about 20 % farmers have a basic or complete agricultural training. But the farmers' training level varies from a country to another between 71 % in the Netherlands and less than 1 % in Malta.

Regarding the education level of the young people belonging to the 30-35 years category, one could say that 25 % have a predominant rural education, 38 % have a predominant urban education and 30 % have an intermediary education.

It is wise as the work force to be better trained in order to enhance its capacity to keep pace with the increased international competition, but the amount of money spent on education varies from a country to another.

Income per annual working unit (AWU) in the EU agriculture. In general, income in agriculture is smaller than in other fields of activity. The EU Commission Report, 2011 showed that 16.9 % of the total EU population is facing the poverty risk. The highest share of the population in poverty risk is in the following countries: Latvia (26%), Romania (22 %), Bulgaria (21%), Lithuania (21 %),

Greece (20 %), Spain (19%) and Italy (17 %).[16].

In agriculture of the EU, the annual income accounted for Euro 18,000 per AWU (annual working unit) in average in the EU-15 in the year 2000. In the year 2007, it accounted for Euro 25,000 per AWU in the EU-15 and Euro 16,000 per AWU in the EU-27. In the year 2008, an AWU received in average Euro 23,000 in the EU-15 and Euro 16,000 in the EU-27. Therefore the states belonging to the EU-15 have a double income per agricultural working unit compared to the EU-27 average, except Greece and Portugal which are below this figure. All the 12 countries who joined the EU in 2004 and 2007 registered a lower income than the EU-27 average.

According to the Eurostat data in 2007, the highest income per AWU was registered in the following countries: Euro 59,000 in Denmark, Euro 44,000 in the Netherlands and also in Belgium, Euro 43,000 in United Kingdom, Euro 40,000 in Luxembourg, Euro 39,000 in Sweden, Euro 38,000 in Germany and Euro 33,000 in France. The countries where the income per AWU was slightly higher than the EU-27 average were the following one: Euro 28,000 in Finland, Euro 25,000 in Austria, Euro 24,000 in Italy, Euro 21,000 in Spain and Euro 18,000 in Malta. The income achieved below the EU-27 average was recorded in the following countries: Euro 16,000 in Czech Republic, Euro 15,000 in Hungary, Euro 14,000 in Greece, Euro 11,000 in Lithuania, Euro 8,000 in Slovakia, Latvia, Cyprus and Portugal, Euro 7,000 in Poland, Euro 3,000 in Slovenia and Bulgaria, and finally Euro 2,000 in Romania, the last position.

In 2010 compared to the year 2000, income coming from agriculture increased by 12.3 % in the EU-27. Agricultural income increased in 21 countries and decreased in 6 countries. The highest growth was registered in the following countries: Denmark (+54.8%) and Estonia (+48.8 %), followed by Ireland (+39.1 %), the Netherlands (+32 %), France (+31.4 %), Latvia (+25.5%), Belgium (+24.1 %), Bulgaria (+23%) and Germany (+22.8%). The highest decrease was recorded in Romania

and United Kingdom (-8.2 %), Greece (-4.3 %) and Italy (-3.3 %).

Taking into account that in 2008 there were 13.7 million farmers in the EU, their structure by income class was the following one: 5 % less than Euro 5,000, 34 % Euro 5,000, 16 % between Euro 5,000 and 10,000, 11 % between Euro 10,000 and 15,000, 7 % between Euro 15,000 and 20,000, 5 % between Euro 20,000 and 25,000, 4 % between 25,000 and 30,000 Euro, 3.5 % over Euro 70,000. Therefore, the higher income, the lower percentage.

Income per AWU by farm size in the EU.

Taking into account farm size, the highest income over Euro 35,000 per AWU is achieved in the largest farms producing over Euro 120,000 gross margin. It is 10 times higher than in the small farms where the average income per AWU is only Euro 3,500. This is caused by the agricultural land a farmer owns. The larger farms with over 168 ha in average, having 20 times more land than the smallest farms, have in general 4 times more employees.

In 2010, income per AWU according to farm size was the following one: 3 % of the number of farms achieved over Euro 70,000/AWU/year; 38 % of farms obtained between Euro zero and 5,000 per AWU/year, 2 % farms registered less than Euro 10,000 per AWU and 7 % farms recorded a negative income, therefore losses and not profit.

The income difference reflects production orientation and performance, diversity of farm structure and applied technologies, natural conditions and input price in the EU member states. In the last decade, the main trends noticed in the field of agricultural labor have been the following ones; gains in productivity due to the reduction of labor force and number of farms and increased farm size[18].

The factors which influenced the income per annual working unit in the EU.

The fact that income per working unit increased by about 1 %, in fact it could be considered that it remained relatively at a constant at the EU level in 2012 compared to 2011, was determined by many factors among

which the main ones are: the economic crisis and the increase of input prices, while agricultural labour input slightly decreased by -0.2 % [1,3].

This situation appeared after an increase by 8,3 % in 2011 and 17.1 % in 2010. Also, agricultural labour input increased by 0.7 % in 2012. Also, taking into account only the countries belonging to the EU-15, agricultural income increased by 3.6 % and decreased by -11.9 % in the member states which joined the EU in 2004 and 2007 (12 states).

The largest increase of income per AWU in 2012 was registered in Belgium (+27.9%), Latvia (+21%), Lithuania (+17.6 %), the Netherlands (+14%) and Germany (+14 %). The deepest decline was noticed in Romania (-27.1 %), Poland (-13.7%) and Slovenia (-12.2 %), Hungary, United Kingdom, Ireland and Austria (-7.5 %).

The EU-15 contributed by 83 % to the total income produced in agriculture and by 50 % to the total agricultural labour input of the EU-27 in the year 2012.

Table 3. Real income change/AWU by EU-27 member states in 2012 compared to 2011

Country	2012/2011 %	Indices in 2012 2005=100	Country	2012/2011 %	Indices in 2012 2005=100
EU-27	+1.0	129.7	Spain	+2.4	100.3
Belgium	+30.0	136.3	Cyprus	+1.7	94.1
The Netherlands	+14.9	114.7	Italy	+0.3	93.9
Lithuania	+13.6	175.4	Poland	-0.3	182.4
Germany	+12.1	140.8	Czech Rep.	-1.4	165.0
Portugal	+9.3	100.9	Greece	-2.0	103.2
Estonia	+9.1	209.8	Slovakia	-5.3	189.4
Latvia	+8.8	136.4	United Kingdom	-6.6	140.8
Bulgaria	+8.7	147.3	Malta	-9.0	74.9
Denmark	+5.2	134.7	Ireland	-10.1	82.7
France	+4.2	134.1	Austria	-10.2	114.4
Luxembourg	+3.7	76.7	Slovenia	-15.1	97.9
Finland	+3.3	126.7	Hungary	-15.7	152.7
Sweden	+3.1	129.3	Romania	-16.4	129.8

(a)**The economic crisis** diminished the income of agriculturists and led to a reduction of employed labor. In the period 2005-2012, real income/worker increased by 29.7 %, while employed working force declined by 20 %. In 2012, income in agriculture increased in 16 countries and decreased in 11 states of the UE-27, as follows: the highest income increase was registered in: Belgium (+30%), the Netherlands (+14.9 %), Lithuania (+13.6 %) and Germany (+12.1 %); the highest reductions were recorded in Romania (-16.4%), Hungary (-15.7 %) and Slovenia (-15.1 %).

(b)**The increased cost of farm input diminished the agriculturists' income.**

In fact, in 2012, real income resulted from the increase by 1.8 % of agricultural production value in terms of producer price and farm input price by 1.6 %. *Agricultural production value* increased mainly due to

price growth by 6.3 % in vegetal production and by 3.9 % in animal production. *Prices for farm input* increased by +3,2 % for buildings maintenance, by +3.7 % for foodstuff, by +4.7 % for seeds and seeding material, by +6.3 % for energy and fuels, by +6.6 % for intermediary services and by +6.7 % for fertilizers and land reclamation.

In this context, as long as income growth is not enough high to cover production costs, direct payments should be provided in order to support farmers in order to maintain farm profitability under the condition of economic crisis [17].

CONCLUSIONS

In the EU-27 there large differences regarding the rural and agricultural population. The main trend is the reduction of agricultural

population, but there are countries where it is increasing and states where it is declining.

Other features of the EU population are: population aging, relatively low training level, gender discrepancies from a country to another, low income per annual working income mainly in the 12 countries which joined the EU in 2004 and 2007 below the EU average income.

However, agriculturists income has slightly increased despite of the economic crisis and increased input price.

Romania has the highest agricultural population, small sized farms and the lowest income per farmer below Euro 2,000. The gap between the EU and Romania could be diminished by training, high technologies, implementation of associative forms in agriculture destined to grow up productivity and competitiveness.

ACKNOWLEDGMENTS

All the support offered to the author by CESAR World Bank Project, "Training the providers of Socio-Economic Guidance Services (SEGPS) to the agricultural Population", financing contract no.2311/26.11.2012 is gratefully acknowledged.

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