

THE LEVEL OF TRAINING AND INFORMATION OF FARMERS IN MAINTAINING AND PROTECTING THE ENVIRONMENT, PART OF THE EU AGRI-ENVIRONMENTAL INDICATORS

ADRIAN BĂNEȘ¹, TIBERIU IANCU², SORIN STANCIU², MANUELA DORA ORBOI³

¹Romanian Academy – Timisoara Branch, Timisoara, Romania, e-mail: abanes@gmail.com

²USAMVB Timisoara, Faculty of Agricultural Management

³USAMVB Timisoara, Faculty of Agriculture

Abstract: *Despite some improvements, the EU's natural resources are under continuous decreasing. Ecosystems and their services, the so call backbone of biodiversity and human well-being, are increasingly threatened by land take for settlements and infrastructure as well as intensification of agricultural production. This paper provides information on the number of participants in the agricultural and food sectors participating in training activities on the environment and the use of environmental consulting services in the rural development policy.*

Key words: *training, information level, environment protection*

INTRODUCTION

Over 10 years, in 2025, 83% of the expected global population (about 8.5 billion people) will be living in developing countries. Yet the capacity of available resources and technologies to satisfy the demands of this population for food and other agricultural supplies remains uncertain. Agriculture has to meet this challenge, mainly by increasing production on land already in use and by avoiding further misuse on land that is only marginally suitable for cultivation. Major adjustments are needed in agricultural, environmental and macroeconomic policy, at both national and international levels, in developed as well as developing countries, to create the conditions for sustainable agriculture and rural development. This will involve education initiatives, utilization of economic incentives and the development of appropriate and new technologies because inappropriate and uncontrolled land uses are a major cause of degradation and depletion of land resources.

At European level exists a specific legislation for access to training for persons employed in agriculture. Thus, Council Regulation (EC) 1698/2005 from 20 September 2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) contains specific provisions regarding the importance of training for the objectives set by the CAP, but also for the overall development objectives Union.

MATERIALS AND METHODS

The present paper provides some facts of the European Union (EU) agri-environmental indicator farmer trainings level and use of environmental advisory services.

Main indicators are the number of participants from the farming, food industry and forestry sectors in information actions devoted to the environment and its share out of the total participants in vocational trainings supported by rural development policy and the number of farmers' applications for the use of environmental farm advisory services and its share out of the total number of farmers' advisory service applications supported by rural development policy. Supporting indicators for the study are EU expenditures on training, information actions and use of advisory services devoted to the environment and supported within measures of the Rural Development Programmes (RDP) and the share (number) of

farm managers having practical experience, basic training, and full agricultural training, with special attention to the situation in Romania compared to other EU countries.

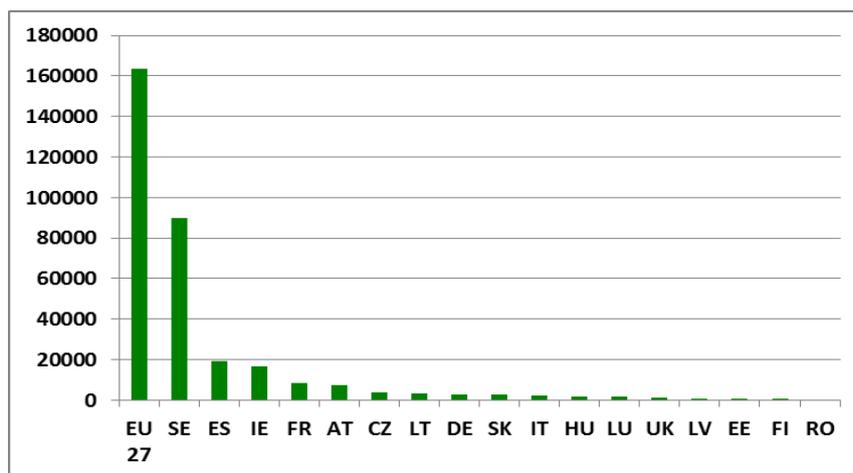


Figure 1. Number of participants to environmental trainings and information actions

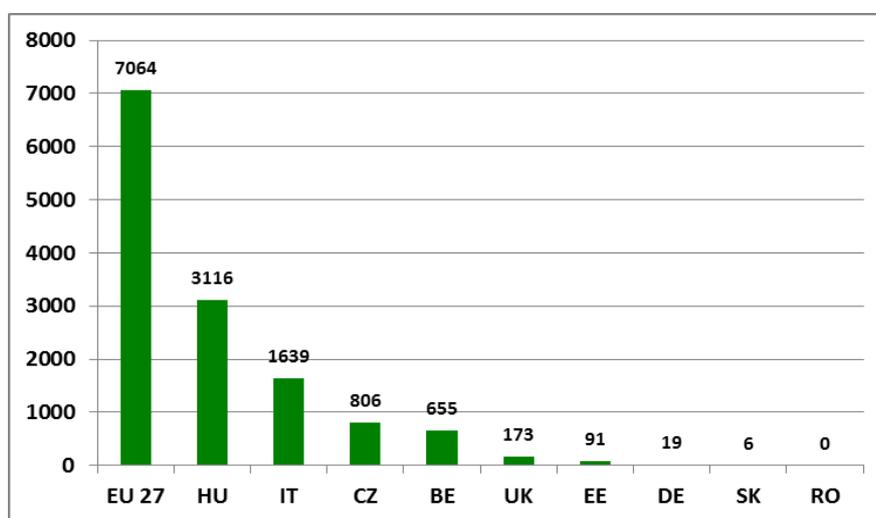


Figure 2. Number of applications for environmental advisory services

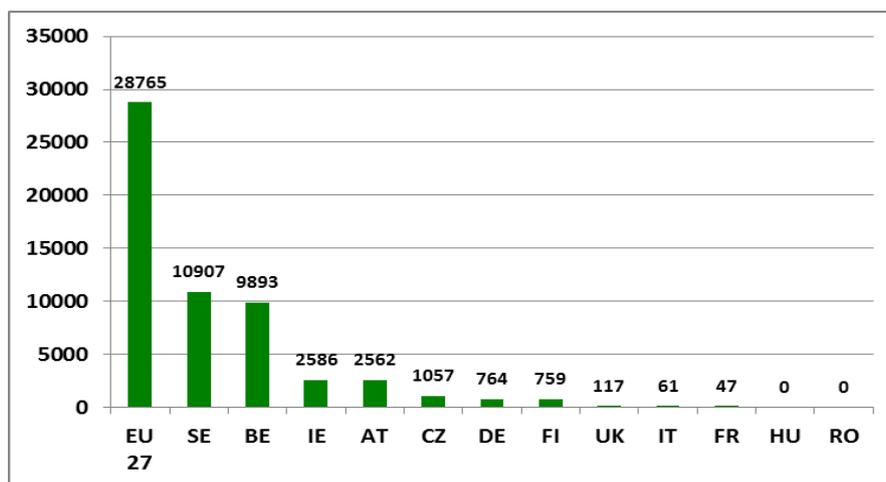


Figure 3. Number of economic actors participating to environment trainings and information

As can be seen from the above data (figure 1 to 3), Romania is found in the tail lists of EU countries, to number of participants to environmental trainings and information actions, number of applications for environmental advisory services and number of economic actors participating to environment trainings and information. It seems that the agricultural managers in our country rely more more on practical experience they have, rather than on the various training programs.

RESEARCH RESULTS

As noted above, Romania is on first place in the practical experience of managers unlike other EU countries, with a very low rate to basic training and one almost nonexistent in full training (figure 4). Also can be observed the great disparity between the three, the vast majority of other countries levels of training beeing much closer as values.

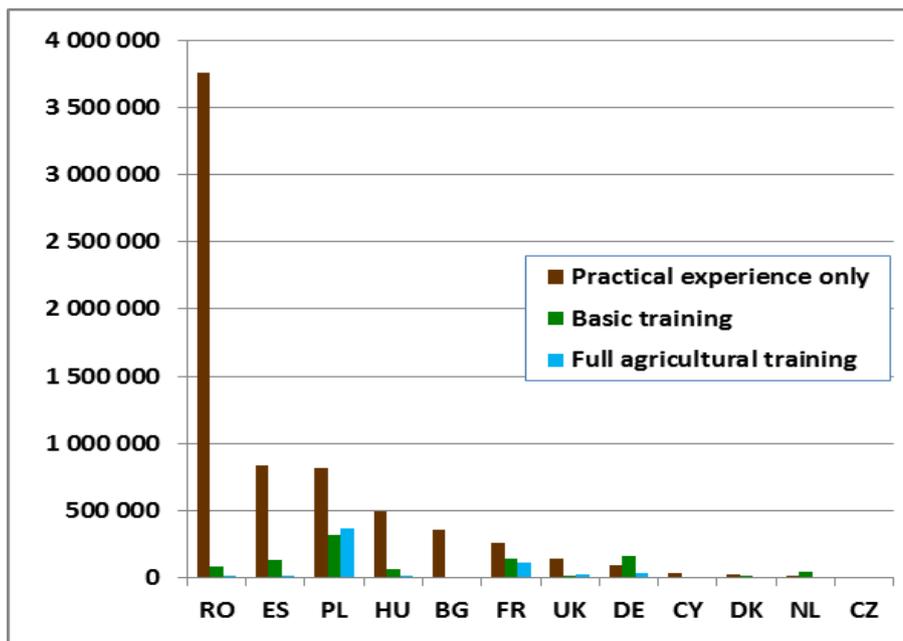


Figure 4. Farm managers highest training level, number of farmers, 2013

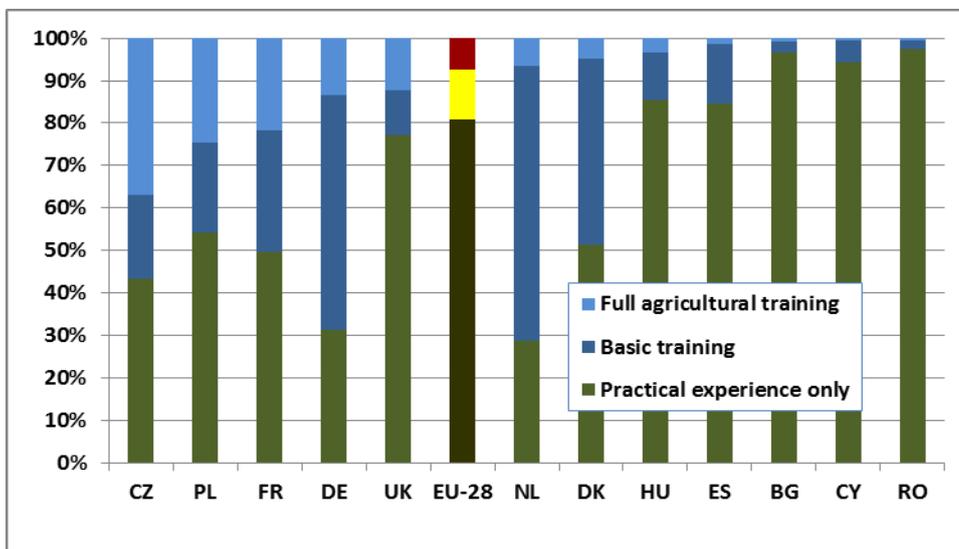


Figure 5. Share of farm managers having as highest training level, %, (2013)

Even if in most countries there is a high level of practical experience (except the Netherlands), in the Czech Republic, Poland, France, Germany, Great Britain and Denmark, the percentage of basic and full training is over 50%, compared to countries like Hungary, Spain, Bulgaria or Romania, where the percentage is below 15% (figure 5).

Next we studied the experience of farmers according to farm size. The size of farms begins with the very low level of 0 euros and up to very large, over 500000 euros. The comparison was made between several EU countries, neighboring Romania or representative for European agriculture (Table 1, Figure 6). We considered representative a graphical comparison between Romania and France, and between Romania, France and Hungary (as a neighbour).

Table 1

Share of farm managers with practical experience only, differentiated by farm size, 2013

| Country | Total | Zero € | Less than 2000 € | From 2000 to 3999 € | From 4000 to 7999 € | From 8000 to 14999 € | From 15000 to 24999 € | From 25000 to 49999 € | From 50000 to 99999 € | From 100000 to 249999 € | From 250000 to 499999 € | 500000 € or over |
|---------|---------|--------|------------------|---------------------|---------------------|----------------------|-----------------------|-----------------------|-----------------------|-------------------------|-------------------------|------------------|
| BG | 357820 | 930 | 248930 | 57600 | 24870 | 11530 | 5390 | 4080 | 2060 | 1410 | 610 | 400 |
| DE | 94000 | 250 | 710 | 4540 | 17130 | 22090 | 15560 | 15900 | 10140 | 5480 | 1460 | 730 |
| ES | 838040 | 15960 | 194800 | 148040 | 144210 | 107110 | 67040 | 70940 | 47620 | 28260 | 8810 | 5270 |
| FR | 256390 | 1540 | 34560 | 26490 | 32990 | 31080 | 25140 | 34670 | 32210 | 27680 | 7430 | 2600 |
| HU | 492390 | 17100 | 329510 | 78510 | 35430 | 16470 | 7050 | 4700 | 2160 | 990 | 280 | 190 |
| RO | 3761970 | 98820 | 2671790 | 584600 | 299220 | 71650 | 18680 | 10150 | 4010 | 2100 | 580 | 380 |
| UK | 144190 | 1540 | 14670 | 14310 | 19550 | 19280 | 14640 | 18390 | 15820 | 15790 | 6870 | 3340 |
| EU-28 | 5944800 | 136140 | 3494970 | 914090 | 573400 | 279210 | 153500 | 158830 | 114020 | 81710 | 26040 | 12910 |

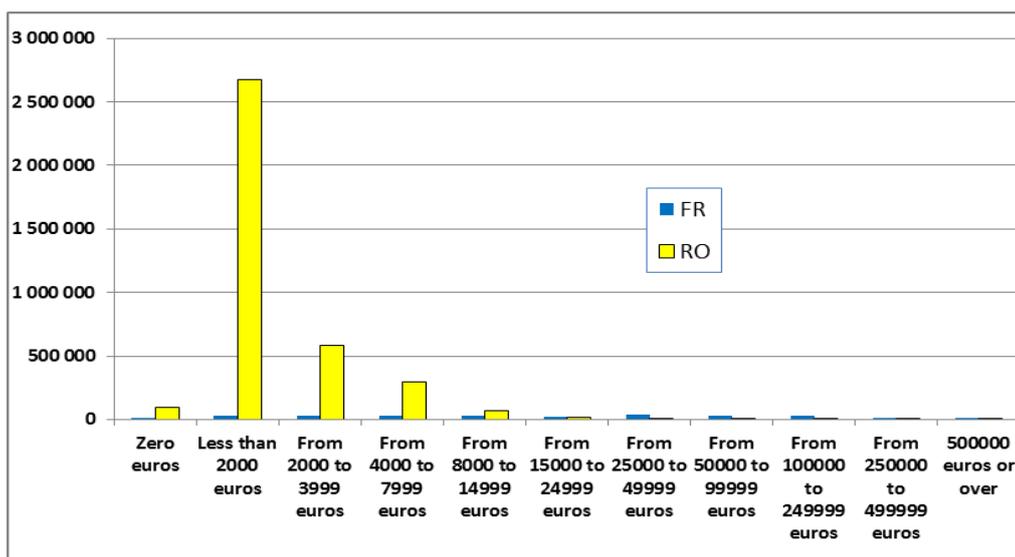


Figure 6. Share of farm managers France vs. Romania, with practical experience only, differentiated by farm size, 2013

As can be seen, in terms of practical experience, Romania stays very well on small farms, family farms, up to the level of 8000 euros, with a peak to up to 2000 euros. France in contrast, has a more uniform distribution and much lower for all cases.

Moving on basic training, in Romania and Hungary, the situation is somewhat similar to the previous one, high values at small farms and low values to large farms, with the same elevated to the level of under 2000 euros. However, the discrepancy between the values is not as high as in the previous case (Table 2, Figure 7).

France instead, starts with small values up to the level of 25000 euros, then grow to large farms, the top holdings beeing between 100,000 and 250,000 value of the euro.

Table 2.

Share of farm managers with basic training, differentiated by farm size, 2013

| Country | Total | Zero € | Less than 2000 € | From 2000 to 3999 € | From 4000 to 7999 € | From 8000 to 14999 € | From 15000 to 24999 € | From 25000 to 49999 € | From 50000 to 99999 € | From 100000 to 249999 € | From 250000 to 499999 € | 500000 € or over |
|---------|--------|--------|------------------|---------------------|---------------------|----------------------|-----------------------|-----------------------|-----------------------|-------------------------|-------------------------|------------------|
| BG | 9610 | 20 | 4360 | 1540 | 1160 | 740 | 490 | 450 | 320 | 280 | 140 | 90 |
| DE | 165230 | 170 | 340 | 1700 | 8070 | 13150 | 13260 | 23030 | 34050 | 47050 | 18020 | 6390 |
| ES | 136610 | 1230 | 15100 | 14170 | 17440 | 16530 | 13990 | 20740 | 18350 | 12650 | 4100 | 2310 |
| FR | 148170 | 350 | 5200 | 4350 | 5990 | 7170 | 8420 | 20410 | 35780 | 44900 | 12430 | 3170 |
| HU | 65290 | 1670 | 24090 | 10530 | 8950 | 6940 | 4440 | 4210 | 2410 | 1460 | 310 | 270 |
| RO | 81490 | 710 | 39010 | 16020 | 12230 | 5780 | 2760 | 2240 | 1400 | 920 | 280 | 140 |
| UK | 19430 | 140 | 630 | 780 | 1320 | 1460 | 1410 | 2500 | 3090 | 4250 | 2360 | 1510 |
| EU-28 | 625830 | 4290 | 88730 | 49090 | 55160 | 51770 | 44770 | 73580 | 95400 | 111510 | 37640 | 13880 |

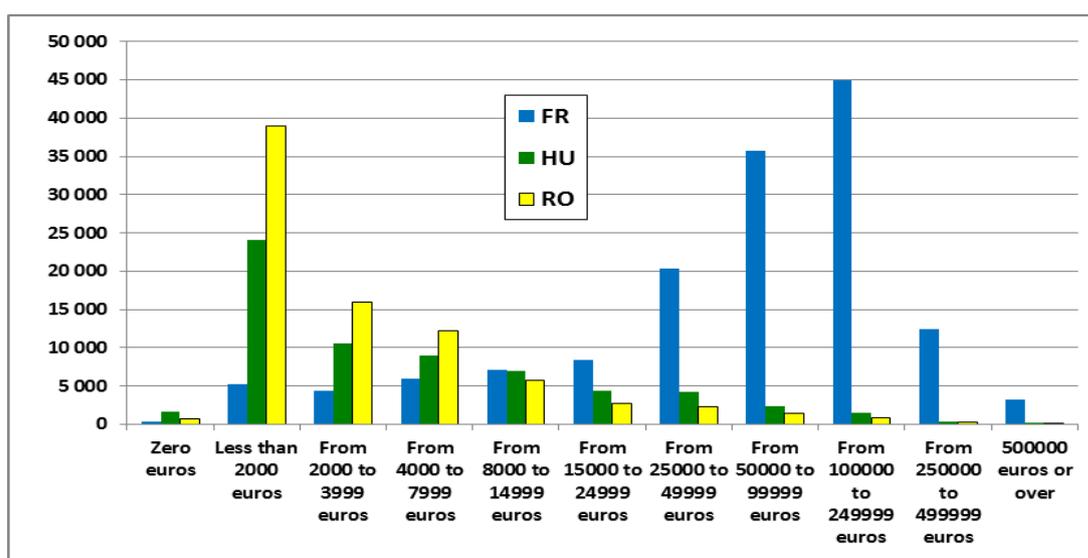


Figure 7. Share of farm managers with basic training, France-Hungary-Romania, differentiated by farm size, 2013

If we refer to the full training, both Romania and Hungary keep the previous trend, that is inversely proportional to the size of the farm, and France keeps the direct proportion to farm size. The big difference, however, is the number of holdings. In the former case this number was about the same, indicating that our country stays better to smaller and less profitable farms and France stays better on the larger and more profitable. This time, the difference in number of farms starts pretty quickly in favor of France, from 4000 euro, and clearly increases to the larger holdings, up from 50000 (Table 3, Figure 8).

Table 3.

Share of farm managers full training, differentiated by farm size, 2013

| | Total | Zero € | Less than 2000 € | From 2000 to 3999 € | From 4000 to 7999 € | From 8000 to 14999 € | From 15000 to 24999 € | From 25000 to 49999 € | From 50000 to 99999 € | From 100000 to 249999 € | From 250000 to 499999 € | 500000 € or over |
|----|--------|--------|------------------|---------------------|---------------------|----------------------|-----------------------|-----------------------|-----------------------|-------------------------|-------------------------|------------------|
| BG | 3070 | 30 | 830 | 330 | 260 | 240 | 180 | 220 | 190 | 300 | 250 | 230 |
| DE | 39910 | 50 | 80 | 330 | 1260 | 1920 | 2020 | 3390 | 5110 | 11430 | 8160 | 6160 |
| ES | 15150 | 200 | 1350 | 1000 | 1410 | 1500 | 1400 | 2070 | 2100 | 2240 | 940 | 920 |
| FR | 111550 | 220 | 1980 | 1640 | 2790 | 4030 | 4830 | 11470 | 22440 | 41310 | 15740 | 5100 |

| | | | | | | | | | | | | |
|--------------|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| HU | 19140 | 1130 | 5090 | 1960 | 2070 | 1940 | 1500 | 1610 | 1350 | 1130 | 480 | 870 |
| RO | 15580 | 310 | 5820 | 1860 | 1560 | 1040 | 790 | 990 | 1040 | 1110 | 590 | 500 |
| UK | 23040 | 190 | 850 | 830 | 1270 | 1520 | 1430 | 2650 | 3390 | 5250 | 3260 | 2400 |
| EU-28 | 778850 | 9120 | 98760 | 74820 | 94510 | 95080 | 76340 | 93480 | 78370 | 93270 | 40820 | 24410 |

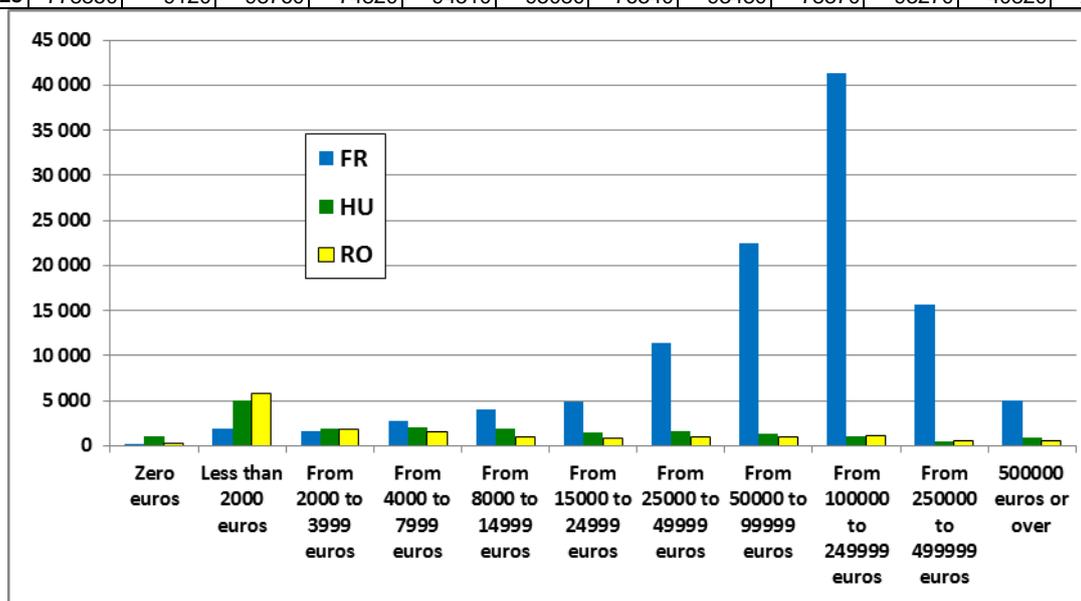


Figure 8. Share of farm managers full training, France-Hungary-Romania, differentiated by farm size, 2013

It follows that we rely more on practical experience and on small farms, there are very few cases in which we have full trained managers, even on large farms.

Next we wanted to see in what age groups are included managers, depending on their training (*Table 4-6, Figure 9-11*).

Table 4.

Share of farm managers with practical experience only, differentiated by age, 2013

| Country | < 35 years | 35 - 44 years | 45 - 54 years | 55 - 64 years | >= 65 years |
|--------------|------------|---------------|---------------|---------------|-------------|
| FR | 12580 | 36390 | 73160 | 79920 | 54350 |
| HU | 32660 | 68700 | 101220 | 135750 | 154060 |
| RO | 272280 | 584590 | 614330 | 843170 | 1447610 |
| EU-28 | 626420 | 1364490 | 1773670 | 2001750 | 2834480 |

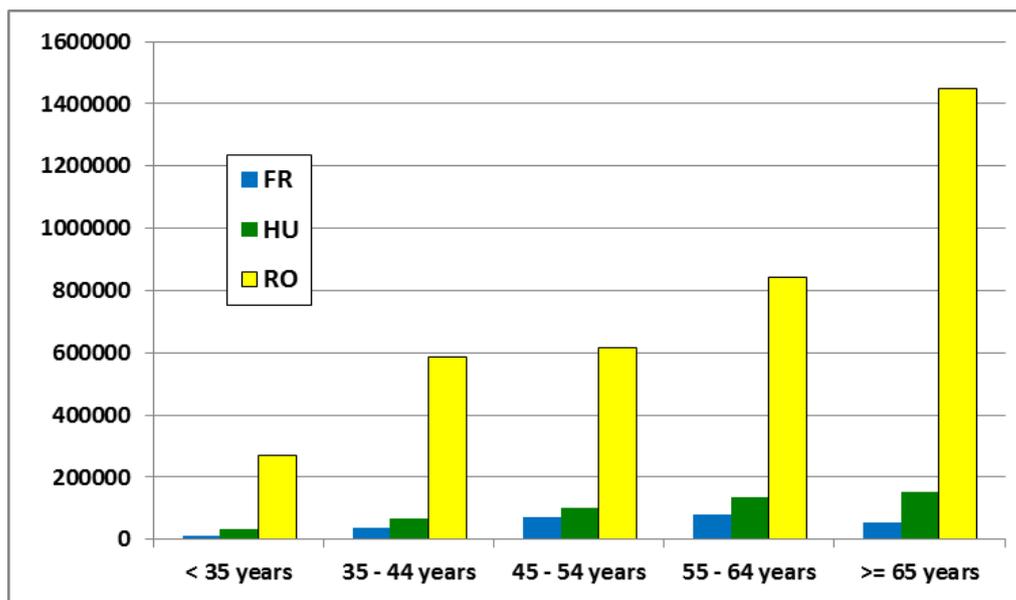


Figure 9. Share of farm managers with practical experience only, France-Hungary-Romania differentiated by age, 2013

Table 5.

Share of farm managers with basic training, differentiated by age, 2013

| Country | < 35 years | 35 - 44 years | 45 - 54 years | 55 - 64 years | >= 65 years |
|---------|------------|---------------|---------------|---------------|-------------|
| FR | 6400 | 32430 | 64050 | 39180 | 6100 |
| HU | 6030 | 12530 | 16530 | 18690 | 11510 |
| RO | 6730 | 22680 | 17990 | 20380 | 13720 |
| EU-28 | 88370 | 249000 | 418830 | 342610 | 148700 |

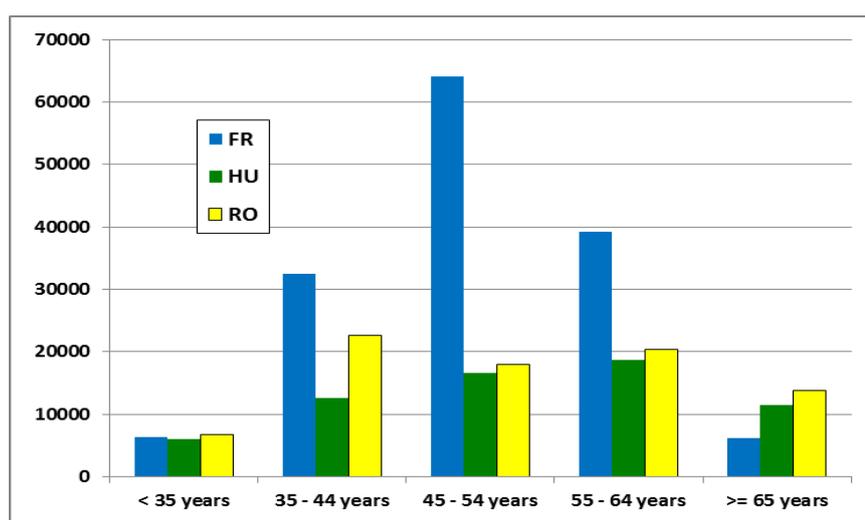


Figure 10. Share of farm managers with basic training, France-Hungary-Romania, differentiated by age, 2013

Table 6.

Share of farm managers with full training, differentiated by age, 2013

| Country | < 35 years | 35 - 44 years | 45 - 54 years | 55 - 64 years | >= 65 years |
|---------|------------|---------------|---------------|---------------|-------------|
| FR | 26110 | 40620 | 29780 | 13620 | 1420 |
| HU | 2070 | 2800 | 4260 | 6380 | 3620 |
| RO | 1440 | 2350 | 4050 | 5370 | 2390 |
| EU-28 | 115950 | 214590 | 258670 | 144600 | 45040 |

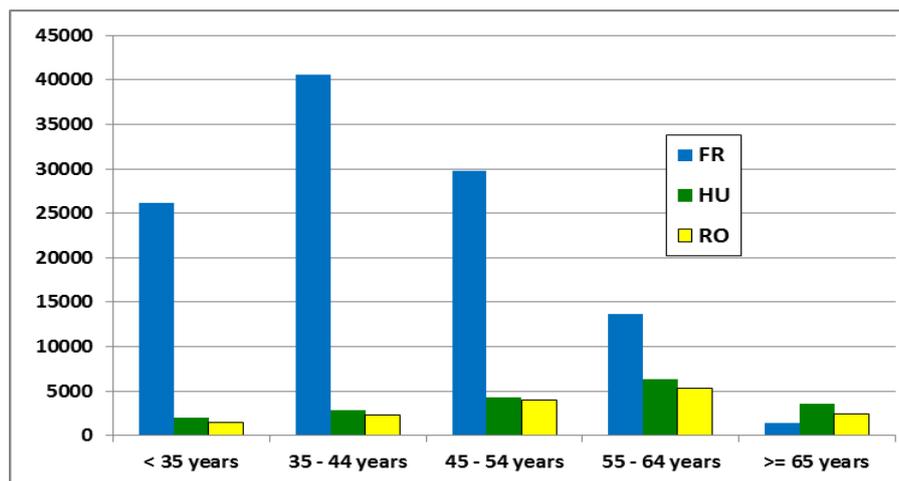


Figure 11. Share of farm managers with full training, France-Hungary-Romania, differentiated by age, 2013

In Romania, the vast majority of managers were aged over 50 years, finding a lack of young managers. To the practical experience, most Romanian managers have over 65 years, quite normal considering that they accumulate experience over time, but still abnormal because they are very many compared to Hungary and especially France, where most are at 45-64 years.

In terms of basic training, managers aged 35-65 years gaining ground in the mid-range with France still in a significant advantage.

To the full training, where should prevail young managers, in Romania most are those aged 55-64, under 35 category occupying the last position. Unlike in France, most full trained managers are those aged 35-44 years, followed by those between 45-55 years and under 35 years.

CONCLUSIONS

An important strategic document that defines inclusive vocational training priorities is the Europe 2020 - a European strategy for a smart and sustainable growth, strategy that requires action to enable Europe to emerge from the crisis and turn the EU into a smart, sustainable and inclusion favoring economy, delivering high levels of labor employment, productivity and social cohesion.

Romania ranks last among EU countries as participation to environment trainings and information or environmental advisory services. In our country the majority of managers are managing farms by own experience, without resorting to other learning programs. This situation is reflected in all categories of farms, especially the small ones where the head of the family, usually an elderly person, handles all.

Other countries, even if they have older people as managers, train and inform them permanently while preparing the new generation to take over their duties successfully. Also, the tendency is to prepare the next generation for large farms, which automatically bring higher profits, unlike our country, where small farms still prevail without having a remarkable profit.

To have a high profit is required primarily young managers, well trained, knowledgeable, that have at least a base training and skills to seize land and equipment and working large areas farms. What will happen when the current generation of over 60 years, with most experience will disappear, without having an acceptable substitute? The future will show what will happen, but it is likely not to be one to bring us great satisfactions.

REFERENCES

1. **STANCIU S.**, 2007, The perspective of the rural development policy in the European Union for 2007 – 2013, *Lucrări Științifice, Facultatea de Management Agricol, Seria I, Vol IX, Pag. 439 – 446, ISSN: 1453-1410.*
2. **STANCIU S.**, 2008, Assessing environmental integration in EU agriculture policy, *Lucrări științifice, Facultatea de Agricultură, Vol.40 (3), 2008, Pag.337-342, ISSN: 1221-5279.*
3. **TOLBA M.K.**, Sustainable Development – Constraints and opportunities, Butterworths, London, 1987.
4. *** - http://ec.europa.eu/eurostat/statistics-explained/index.php/Agri-environmental_indicator_-_farmers%E2%80%99_training_and_environmental_farm_advisory_services, accessed 2015;
5. *** - http://ec.europa.eu/eurostat/statistics-explained/images/b/bc/Fact_sheet_3_SE, 2015
6. *** - <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=DD:03:66:32005R1698:RO:PDF>, Council Regulation (EC) 1698/2005 from 20 septembrie 2005, accessed at 18.03.2013
7. *** - http://ec.europa.eu/archives/growthandjobs_2009/pdf/complet_ro.pdf , Europe 2020 - A European strategy for smart, sustainable and inclusive growth, accessed at 22.03.2013