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Small Farms Restructuring in Bulgaria

Abstract: There are numerous studies which point to the possibilities for rural revitalization and improvement of the living standards of the rural population through development of tourism. Cluster concept and regional cluster initiatives in tourism are generally presented as tool for fulfilment of ideas about the successful regional and rural development. This study presents the genesis, functioning and impact of two tourism cluster initiatives from mountainous rural areas of Slovakia (Orava region and Turiec region) on selected regional indicators (net migration of population, number of tourists, overnight stays and unemployed persons) with the aim to confirm or put into the question the validity of positively perceived direct relation between the simple existence of tourism cluster and racional (successful and/or sustainable) spatial development. The results (comparison of applied regional indicators before and after establishment of tourism clusters) show that establisment and existence of tourism clusters in Orava and Turiec regions are not automatically accompanied by the dramatic changes of regional and rural economic prosperity and/or sustainability in the first years of their activities.

Keywords: rural and regional development, tourism clusters, assessment of cluster initiatives in tourism. Slovakia

One of the most significant rural development program (RDP) focuses for the previous program period is the competitiveness increase, in the agricultural production area and for other non-agricultural activities, related to the sector. Indispensable condition for this purpose achieving is the farms modernization and restructuring. Decisive role, in a big degree, have the measures oriented to the investment in fixed assets and production factors in the agricultural, forestry and food-processing sectors; to the acceleration of investment activity in agricultural holdings for their compliance with Community standards; to the restructuring of agricultural structures through building of viable marketoriented business by farmers, working predominantly in small farms. In the new program period 2014-2020 has been previewed a special subprograme. linked to the financial support of small farms, aiming their production and economic stabilization. These farms are in the spotlight, due to their role and multiplicity in the total farms' structure and the present article responds to this need. In the last years, after 2005, some changes have occurred in the production structure of almost all farm types. These changes concern also the small farms, being the possible precondition for their economic viability. In the present article have been analyzed the occurred changes of the production structure of small farms (SF) in the period 2005-2010.

In the last decade the ambience surrounding agricultural producers, managing their farms, has been in constant and fast change, often without any warning. The dramatic prices' fluctuations are in result of the more strong requirements for the quality, the new environment regulations, the discussions about the genetically modified crops, the extreme climatic conditions and the increasing demand of energy. Secondly, the Common agricultural policy (CAP) changes and the results of the financial crisis create insecurity regarding the future threats and opportunit ies. In these highly variable conditions the traditional linear approach for effective agricultural production management is not already enough. The farmers should be in a position to manage with the unexpected events and to adapt to the new situations.

In the practice there are several strategies creating and consolidating the management capacity of the farm. On the first place are the transfer of knowledge and innovations and the accumulation of skills through the experimentation and monitoring of this transfer results. On the second place is the diversification of activities and the flexible farms organization, aiming to increase the opportunities for new activities of the farmer and its family and the diversification by non-agricultural activities to diminish the results of different risks and creation of buffers. On third place is the implementation of flexible management (Darnhofer et al., 2010). This structures application increases the farmers' opportunities to maneuver and allow the identification of different options. These options depend not only on the farm itself, but on the farmer's capacity to mobilize external resources and to be involved in collective actions.

In the context of these circum stances the change should be examined not as violation, but as a start of resources' organization and of agricultural activities' improvement. The implementation of these strategies has its price, so the farmers must choose between effectiveness and adaptability. Nevertheless, if farmers manage to get control on these challenges, this would guarantee their farms sustainability.

However, the flexibility and the adaptability of agricultural systems have been rarely object of researches in the area of agricultural practices improvement or creation of technical innovations. Most of the analyses are focused on productivity increase, products quality improvement, production processes optimization, decrease of the impact on the environment and costs diminution or profits increase. (Bennis et al., 2008; Slaughter et al., 2008). Government's policies are also directed to stabilization of products and markets and importation control. Despite the changes, they were implemented gradually and predictably . This way the dynamics of agricultural system and its context should receive more attention, compared to the past. To understand better this dynamics, we have to pay more attention to the fact that changes could be dramatic and sudden. The relations between agricultural systems' components are important and also they are adaptable, i.e. they are in constant collaboration with the environment.

In the management theory the conception for the flexibility is seen as a tool to cope with insecurity, which has also relation with the adaptive capacity of the farm. There is a difference between the operative and the strategic flexibility. The operative is related to the system's ability to implement changes in short-term plan, when farmers are in front of surprises. The strategic flexibility has relation with the long-term choice opportunities and has the potential to change the structure, resources and the farm's competence to react according the environment changes.

The rural households, for example, are not able to change flexibly their work schedule, daily or weekly, and to answer properly to the changing meteorological models (operative flexibility). They should be also able to have another job online or out of the farm (strategic flexibility).

In fact, the flexibility does not concern only the internal farm processes, but also the ability to attract exterior resources, i.e. the farmer 's skill to mobilize external resources through collective actions. Chia (2008) calls this ability "relation flexibility", i.e. the farm's ability to mobilize external resources trough collective actions. This could be in the form of processing or marketing cooperatives, purchasing machines from several agricultural producers or creation of association for building of common bio-gas installation. In smaller scale the mutual aid and exchange are also included.

It is clear that the flexibility is partly related to the variety, i.e. constant development and management of port-folio of alternative abilities, opportunities

and relations. The management of complex systems like agriculture ones and the insecure future development presupposes risks spreading and buffers creation. The evolution potential of a farm is related to its ability to initialize new activities, on the base of the diversification forms of existing activities and the availability of alternative options and innovation activities.

Farmers always have had to handle some level of changes and unpredictability, so to be flexible and to adapt to the new circumstances. Structural adjustment is the response of these economic agents to a shift in compara tive advantage. It is the larger and longer lasting changes in resource allocation made in response to changing economic conditions and are recognised as an essential concomitant of economic growth and rising living standards. As economic circumstances and available technology are constantly changing, structural change is also a dynamic process. Structural adjustment in the various sectors of the economy mostly takes place gradually over extended periods of time, hence the bulk of the structural changes occur smoothly without causing major disruptions in terms of adjustment costs. Changes can nevertheless sometimes be abrupt and severe, resulting in significant costs for disadvantaged industries and for farm households in these industries. Finally, structural adjustment can have implications for rural economies and regional communities because the agricultural sector's demand for labor, goods and services, including downstream processing, changes.

Database and method

For the research purpose have been used data from EUROSTAT and the following five absolute and relative indicators:

- 1. Total number of farms from the respective type of production direction;
- 2. UAA size in farms, per farms type;
- 3. Number of conventional livestock units in farms, per production type;
- 4. UAA size and number of conventional livestock units in one farm from the respective production type;
- 5. Relative farm share, per production type in the farms structure.

The analysis of enumerated indicators is realized separately for the following two groups of SF: 1) Farms with economic size up to 2000 Euros of standard production sizes (SPS) 2) Farms with economic size from 2000 up to 3999 Euros of SPS. The farm typology per production direction is borrowed by the farms' typology, used for the Census of farms by MAF in 2010.

Restructuring of farms with economic size up to 2000 Euros

For the period 2005-2010 the total number of these farms has decreased from 353 180 to 253 770 or by 28,1 %. Their number in 2010 is 68,5% of all farms versus 66,1% in 2005; they manage 3,1% of all UAA, against 6,3% in 2005 and breed 18,3% of all livestock units in farms, against 22,7% in 2005. The

change of farms number, per production types, could be followed in Figure 1. For better clarity, the farms have been divided in two sub-groups: the first unifies farms having predominantly crop-growing character, the second – farms with predominant specialization in livestock breeding.

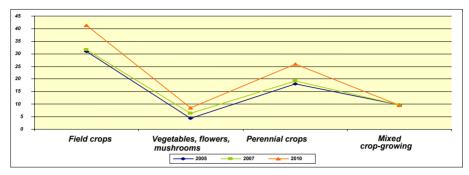


Figure 1. Dynamics in the change in number of total crop-growing farms (thousands), 2005-2010

Source: Own calculations with information from EUROSTAT

Increase of the number of crop-growing farms of all directions has been observed. The increase in absolute values is the biggest for farms, specialized in the growing of field crops (from 30930 in 2005 to 41290 in 2010) and these growing perennial crops (from 18100 in the basic year to 25890 in the reported year). The farms number, specialized in the growing of vegetables, flowers and mushrooms has increased by 4170 in 2010 versus 2005.

In correlation to the noticed trends of the total farms number changes, the trends of UAA changes are seen in Figure 2.

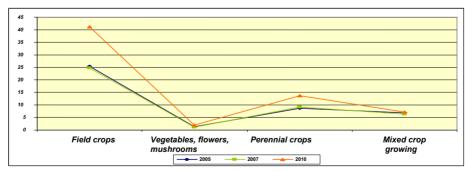


Figure 2. Dynamics of total UAA size changes, per types of crop-growing farms, thousands ha, for the period 2005-2010

Source: Own calculations with information from EUROSTAT

If the two graphs are compared, it is seen that, despite the common trends of total farms number and UAA size changes, the last ones do not occur with

similar pace. For instance, if the field crops farms number has increased of 33,5% in 2010 against 2005, for the same period the UAA size increase is almost 62%, i.e. the UAA increase pace is almost twice bigger than the increase pace of the field crops farms. This leads to bigger UAA size, for 1 farm, in average, of 1 ha in 2010, i.e. a relative consolidation is present. For the farms, growing vegetables, flowers and mushrooms, we observe the inverse situation: almost twice bigger number of these farms (95%), while the average UAA size increase of 1 farm is 53%. The result is low diminution of the average size of UAA in one farm - from 0,3 ha to 0,24 ha. More insignificant is the difference between the pace of two increases for the perennial crops farms, of 43% for the farms number and of 60% for the UAA. Slight increase of UAA size of one farm is present (from 0,48 ha to 0,53 ha).

In difference of crop-crowing farms, for the livestock farms the trend is inverse, their number decreases, as the most expressed diminution is for the farms, breeding pigs, poultry and rabbits – from 56 thousands to 21 thousands, i.e. more than twice (Figure 3). The number of bovine farms and of these, breeding sheep and goats is in a factual decrease, despite the slower pace – respectively by 17,4% and 9,2%. The decrease is big for the mixed livestock farms (by 55,8%) and for the mixed crop-growing and livestock-breeding type (by 34,1%).

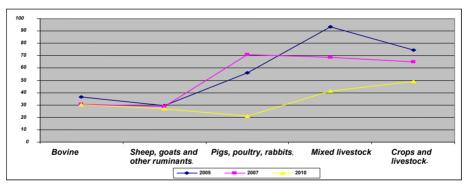


Figure 3. Dynamics of change of the total number of livestock farms (thousands) for the period 2005-2010

Source: Own calculations with information from EUROSTAT

The drastic diminution of livestock number is accompanied by big decrease of animals number (Figure 4).

As we can see, the animal number's decrease is almost the same (approximately half) in the mixed livestock farms (by 50,8%) and these, specialized in the breeding of pigs, poultry and rabbits (by 47,7%). Crops-livestock and bovine farms follow, with a decrease of animal number respectively by 24% and 9,8%. In farms specialized in breeding of sheep, goats and other ruminants the animals number remain almost invariable.

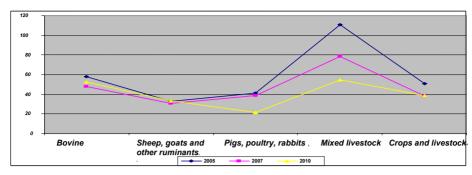


Figure 4. Dynamics of change of the total number of livestock units, per types of livestock farms, thousands, for the period 2005-2010

Source: Own calculations with information from EUROSTAT

We can conclude that the decrease paces of the different types of livestock farms are higher than the diminution rates of raised animals (particularly for the farms with pigs, poultry and rabbits). Therefore, there is some increase of animals' number, bred in one farm of the respective type. For example, in one pig farm the increase is from 0,73 livestock units in 2005 to 1,02 in 2010 or by 39,2%, and in crops-livestock farms- by 15,4%. The increase for the other livestock farms keeps almost the same level: 9,1% for the bovine farms; 11% for the farms, breeding sheep and goats and 11,4% for the mixed livestock farms. On the background of constant diminution of animals' number, it is obvious that there is a farms' consolidation, although not very big.

The cooperated action of the different per pace and direction changes of the total number of farms, UAA size and number of animal units in different farms form the respective changes of the total farms structure (Figure 5).

The analysis of the graph above shows the increasing share of farms growing field crops, almost twice (from 8,8% in 2005 to 16,3% in 2010). The orientation to growing more quantity of field crops is related to the opportunity to receive direct payments, under SAPS, after 2007. According this increase, the share of UAA in this group of farms is bigger, as for 2010 it reaches almost 1/3 of the total UAA (29,6%), while in 2005 it is twice lower (14,8%). There is also an increase of the share of perennial crops farms - ot 5,1% ha 10,2%, although its value is too low in the total farms structure. In the same period the share of farms specialized in breeding of pigs, poultry and rabbits has decreased (from 15,6% to 8,3%). For farms of mixed livestock type there is also share diminution – from 26,4% to 16,2%. The share of bovine farms has insignificant increase (from 10,4% to 11,9%), and of these for sheep, goats and other ruminants – from 8,4% to 10,6%.

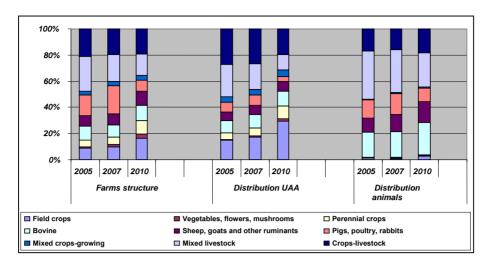


Figure 5. Changes of farms' total structure and distribution of UAA and animals' number, according the production direction for farms having economic size up to 2000 Euros, (%)

Source: Own calculations with information from EUROSTAT

Changes in farms structure differ from already analyzed results, related to changes in farms number, UAA size and animals' number. For example, the share of bovine farms and of these for sheep and goats increases respectively by 15,% and 26,3%, while their number decreases absolutely and relatively. In the farms structure, the share of holdings for pigs, poultry and rabbits diminishes from 13,7% to 10,2%, but this diminution is under the level of their absolute and relative diminution. Similar is the situation for the mixed livestock farms, the mixed crops farms and the crops – livestock farms, for which the changes are very small, about 1%-2%, but in upward direction. The outlined disparities are due to the fact that all farms number with economic size under 2000 Euros decreases more rapidly than the pace of changes for farms number, UAA and livestock number in farms with different production directions.

Restructuring of farms with economic size from 2000 to 3999 Euros

During the analyzed period the total number of these farms has decreased by 45% (from 108450 in 2005 to 59290 in 2010). This means that it comes to a bigger decrease, in relation to the average for all farms decrease. The process of farms diminution is accompanied by increase of their physical size, according the UAA. In 2000 one average farm has cultivated 1,21 ha versus 1,6 ha in 2010. As we can see later, the analysis shows that this trend is characteristic for almost all farms from the target group. More concretely, the dynamics of change of the number of different production types of farms, having crop growing orientation, could be followed in Figure 6.

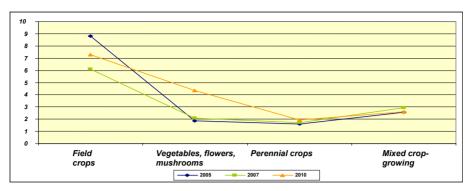


Figure 6. Dynamics of change of the total number of crop – growing farms (thousands), for the period 2005-2010

Source: Own calculations with information from EUROSTAT

As it is seen, from crop-growing farms, there is big drop for the specialized in field crops growing farms -17.2%, while the number farms with vegetables and perennial crops increases respectively by 135% and 20%. The number of the mixed farms is almost without change in the period 2005 - 2010. Changes of UAA size show that despite the big diminution of filed crops' farms, their total UAA has increased by 49 % (Figure 7). In consequence, the average UAA size in field crops farms has increased from 2,22 ha in 2005 to 3,99 ha in 2010, i.e. almost twice. For the other crop-growing farms has been observed also an increase of the total size of UAA, as follows: vegetables – by 80%; perennial – by 65%, mixed crop-growing – by 16%. Due to the already outlined big increase of the number of vegetables' farms, in difference to these growing field crops, the average UAA size in a farm with vegetables decreases from 0.54 ha in 2005 to 0, 41 ha respectively, for 2010. Having in view the fact that the increase of farms number, growing perennial crops, is not so drastic and the pace of this increase is lower than the pace of increaseof the used by them UAA, the final result is increase of the average size of the used agricultural area by one farm, from 2,12 ha to 2,91 ha in 2010. The two processes have the same result, (1) the change of the total number of farms having mixed crop-growing character and (2) the increase of the total size of UAA, used by them. These two processes result in the increase of the average size in such farms - from 1,97 ha to 2,25 ha in 2010.

The received results show the fragmentation of farms, specialized in vegetables growing and consolidation of farms, specialized in the following three directions: field crops, perennial crops and mixed crop-growing. A conclusion could be made that for this category SF is present a production restructuring with enlargement of areas of field crops. At the effective CAP measures the farmers have the motivation to produce cereals, industrial crops and other field crops, in comparison to other agricultural production. This trend is characteristic particularly for the big farms, but the analysis shows the same trend

for the small ones, these with economic size up to 2000 Euros and these with standard economic size between 2000 and 3999 Euros.

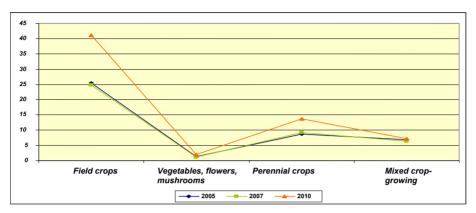


Figure 7. Dynamics of change of the total UAA size, according the types of cropgrowing farms, thousands ha, for the period 2005-2010

Source: Own calculations with information from EUROSTAT

The dynamic of farms structure from the livestock sector in the period 2005-2010 could be seen in Figure 8.

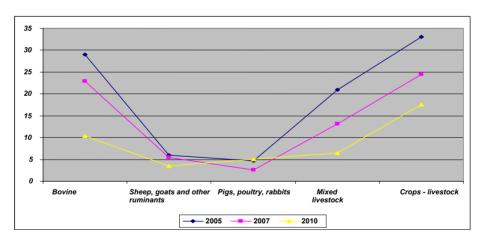


Figure 8. Dynamics of change of livestock farms' total number (thousands) for the period 2005-2010

Source: Own calculations with information from EUROSTAT

Unlike the farms with economic size up to 2000 Euros, specialized in pigs, poultry and rabbits breeding, the same farms with standard production amounts from 2000 up to 3999 Euros retain, even slightly increase their number in 2010 against 2005 (from 4670 to 5120). For all the rest livestock farms, the

trend is to drastic decrease of their number. The most expressed diminution is of mixed livestock - 3,12 times and for the bovine farms - almost three times (2,78). Weaker, but also enough high is the rate of decrease of mixed crops-livestock farms – almost twice (1,9) and of these, breeding sheep, goats and other ruminants - 1,68 times. The trends of farms number change for the different farms, excluding these with pigs, poultry and rabbits, are more unfavorable than for the farms with economic size under 2000 Euros. Particularly alarming is the situation with the outlineddecrease of bovine and ovine farms. The self-liquidation of part of them is related to the hard economic conditions of functioning for the dairy farms (particularly the high prices of fodder and low milk prices) and to the difficulties of execution of obligatory European requirements for sanitary – hygiene standards, for animal welfare etc. which must be fulfilled by the farms, in order to pass to higher category.

The noticed negative trends of the livestock farms number correspond to similar negative trends of the number change of animals, bred in these farms (see Figure 9).

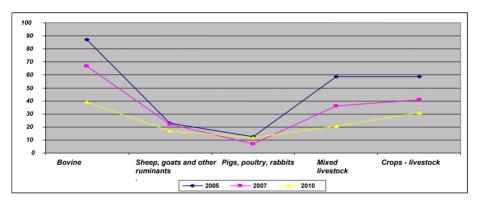


Figure 9. Dynamics of change of the total number of conventional livestock units, per livestock farm types, thousands, for the period 2005-2010 Source: Own calculations with information from EUROSTAT

As it is seen, the biggest drop is also for the conventionallivestock units at the mixed livestock farms - 2,85 times, followed by the bovine farms - 2,23 times, mixed crops – livestock farms - 1,88 times and these, specialized in pigs, poultry and rabbits - 1,35 times. Despite the two trends for the four groups are similarly negative, they differ slightly, regarding their range. The decrease rate of animals' number is smaller than the decrease rate of the farms' number. This determines some increase of the average livestock number, bred in one farm, as follows: for the bovine and ovine farms by 24%-25%, for the mixed livestock – by about 13% and for the crops – livestock farms the animals' number remains the same. Independently from the established increase of the average livestock number, bred in bovine and ovine farms, it must be noticed that it remains very low: 3-4 cows and 4-5 sheep on average, in one farm. For

the farms with pigs, poultry and rabbits the dynamics trend is inverse, there is a diminution of the total number of animals' units by about 5%. This lead to a respective decrease of the average number in one farm – of 13,3%, i.e. the increase of pig farms number is at the expense of their fragmentation. From 2,7 animal units on average in one farm in 2005 they have diminished to 2,33 in 2010. We can generalize that despite the observed differences of the orientation and change rates of the total livestock farms number and animal's number, these farms remain fragmentized as a whole.

The complex running of the different changes of farms number, of UAA size and of conditional animal units in animal farms has had impact on the changes of the farms' structure with production amounts from 2000 to 3999 Euros, seen of Figure 10. Although the cereal production is concentrated in the big massifs of large farms and barely presented .in small farms, the share of farms specialized in cereal, industrial, oilseed and other field crops has increased 1,5 times in 2010 against 2005. It is present in the total structure of farms from the analyzed category, having value of 12,3%.

The drastic diminution of bovine and ovine farms and the number of animals, bred in these farms, has led to the respective diminution of their share in the total farm structure – from 26,7% in 2005 to 17,6% in 2010. Regardless of the fact that in SF is concentrated the big part of animals in the country, especially cattle, sheep and goats, in the present program period the livestock—sector obviously has not been a priority sector and conditions for its developmentdo not stimulate small farmers to breed livestock.

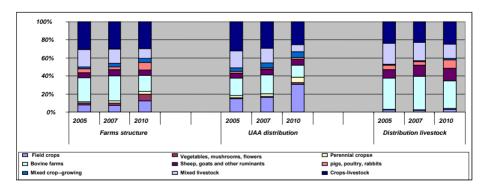


Figure 10. Changes of total farms structure, UAA distribution and animals number, according the production direction in the period 2005-2010 for farms with economic size from 2000 to 3999 Euros, (%)

Source: Own calculations with information from EUROSTAT

This hypothesis has been confirmed by the change of the share of mixed live-stock farms, which for the analyzed period decreases from 19,3% to 10,9%. The highest share in the farms structure is of the mixed crops – livestock far-

ms (approximately 30%). For all other farms (growing vegetables, perennial crops, mixed crop – growing and these, specialized in pigs, rabbits and poultry), regardless the observed increase of their share, the presence of the farms in the total structure remain very modest. Every group has share under 10%.

Conclusions

Concerning the analysis of farms changes with total production amount up to 2000 Euros in the period 2005-2010, the following conclusions could be made. There is a considerable decrease of the total number of farms with standard amount up to 2000 Euros, although, their decrease is smaller than the absolute diminution of all farms number. Therefore, their relative share in the total farms structure increase by 2,5%. There are some differences between crops and livestock farms, regarding their orientation and rates of change of their number. For the crop growing farms, there is an increase of their number and UAA size, for all directions. The biggest increase is for farms with field crops and these growing perennial crops. For livestock farms the situation is different: their number and the number of animals decrease in all farms subtypes. The most drastic decrease is of farms for pigs, poultry and rabbits.

As a final result from the realized ambiguous processes of changes in different groups and sub-groups of farms, changes occurred in their general structure. In the analyzed period the farmers have been oriented predominantly to the enlargement of areas with field crops and these of perennial crops, compared to vegetables. Subsidies, received by farmers in livestock farms are not a sufficient stimulus for the prolongation of farmers' activity and more less, for the livestock number increase.

From the made analysis of changes related to the physical indicators, characterizing farms with economic potential from 2000 to 3999 Euros could be made the following conclusions. As in the first group (farms up to 2000) Euros), so for the second group, per size, the farmers have been stimulated to enlarge the field crops areas size. On the background of diminution of their number in the group from 2000 to 3999 Euros standard production size, there is a consolidation of field crops farms. For the farms growing perennial crops and the mixed crops-livestock farms there is also a consolidation, although in small scales, compared to farms with field crops. In the analyzed period there is a further fragmentation of vegetables - growing farms, because of the higher rate of increasing of their number, compared to the increase rate of the used by them land. Very alarming is the trend of drastic drop of the mixed livestock and of bovine farms' number and the number of bred animals in these farms, in difference to the changes of the same farms types, but having economic potential up to 2000 Euros. Having smaller power, but also decreasing are the ovine farms, accompanied by the diminution of the number of bred sheep, goats and other ruminants.

The results from analysis of the both group of small farms restructuring give rise to offer differentiated support for these farms in thenext programming period 2014-2020. With this approach should be taken into account production direction since the effects of EU subsidies on the various specialized farms is not the same. It is advisable holdings specializing in growing vegetables, fruits and animals have specific additional financial incentives unlike those with field crops.

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