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THE INFLUENCE OF INVESTMENT SUPPORT AS A PART OF WPR ON ACTIVITIES OF SMALL AGRICULTURAL FARMS

JEL code: Q1, Q12, Q18

Summary: The aim of the paper is to indicate the most important changes that have taken place in the functioning of small farms from the Małopolskie voivodship, which benefited from investment support, implemented under the CAP in 2004-2015. The impact of the investment support was rather one-sided and concerned primarily the increase of physical capital. The implemented investment projects have contributed little to changes in the area of agrarian situation of these farms. This support, however, contributed to a more efficient use of land resources by increasing the crop area, which resulted in an increase in the scale of production. A large part of the surveyed farmers indicated that the income from the farm increased, but this increase was not usually high.

Key words: common agricultural policy, small farms, farm income.

1. INTRODUCTION

There are more than nearly 430 million agricultural farms in the world. 85.1% of them have areas smaller than 2 ha of agricultural land and nearly 12% between 2 and 10 ha. Thus, functioning of small agricultural farms is a common phenomenon found in all countries of the world. However, the scale of the phenomenon is different and depends on the level of economic development of a given country [Żmija, Szafrńska 2015]. Upon the example of members states of the European Union, it can be observed that the scale of functioning of small agricultural farms is lower in those countries, which underwent processes of industrialization and development of industry in the first years following the WWII and it is greater in the countries of the Central and Eastern Europe, including, also in Poland [Drygas, Musiał 2013]. Even in countries with highly developed agricultural sector as regards technology, small agricultural farms remain significant participants of the system of production of food and ensure work places in agricultural areas [Czyżewski, Stępień 2013].

In the European Union in 2013 agricultural farms with their area smaller than 5 ha constituted 64.7% of all agricultural farms. In 15 member states of the EU the percentage was 45.8%, whereas in the member states, which accessed the EU in 2004 and later the percentage was 77.8% of the total number of agricultural farms. New member states are much more characterized by greater fragmentation. Small agricultural farms also dominate in southern member states of the EU-15, most of which constitute farms with the area smaller than 2 ha. This situation contrasts with the area structure of farms located in the north-western part of the EU-15 [Eurostat 2016].

In the last two decades preparations for accession and then, the very accession, into the European Union had the most significant influence upon agriculture and rural areas in Poland. The activities stimulated various types of processes, which aimed at adjustment of the Polish agriculture and agricultural farms to standards of the EU as well as principles of functioning in the uniform European market. Instruments implemented as part of the common agricultural policy were significant in processes of the changes. Despite numerous positive changes, Poland is still a country, which has diversified and fragmented agricultural structure with a lot of agricultural farms with the area smaller than 5 ha of agricultural lands. [Żmija K., Żmija D. 2018].

The aim of this article is to indicate most important changes made in functioning of small agricultural farms in the Małopolskie Province, which took advantage of the investment support provided as part of WPR in the years 2004-2015.

2. THE RESEARCH MATERIALS AND METHODOLOGY

The research used results of the author's own surveys realized in 2016 in the Małopolskie Province on a group of nearly 300 small agricultural farms, the owners of which took advantage of the investment support as part of the following WPR instruments in 2015:

- Sector Operating Programme „Restructuring and modernization of the food sector and development of rural area in 2004-2006” Measures: „Investments in agricultural farms”, „Facilitation of a start for young farmers”, „Diversification of agricultural activities and activities similar to agricultural activities in order to ensure diversity of activities or alternative sources of income”, „Adjustment of agricultural farms to EU standards”, „Development and improvement of technical infrastructure connected with agriculture”,
- The Plan of Development of Rural Areas 2004-2006 Measure: „Support for low-commodity farms”,
- The Programme of Development of Rural Areas 2007-2013, Measure: „Modernization of agricultural farms”, „Differentiation towards activities other than agricultural”, „Creation and development of microenterprises”, „Facilitation of a start for young farmer”, „Restoration of potential of agricultural production destroyed as a result of natural disasters and im-

plementation of appropriate preventive activities”, “Increase of basic added value of agricultural and forestry production”.

The spatial range of the analysis presented in this paper covered Małopolskie Province and was selected intentionally. A prerequisite for the selection was the fact that the Małopolskie Province belongs to an agricultural subregion with strongest fragmentation of agricultural land structure in Poland, where a small share of medium and large farms may be observed.

Agricultural farms are divided according to various criteria of delimitation of the same [Musiał, Drygas 2013; Wilkin 2013; Dzun 2013, Żmija 2016a] and problems connected with functioning of small or tiny agricultural farms were tackled by various authors [Halamska 2011; Zegar 2012; Czyżewski, Stępień 2013; Davidova and Bailey 2014; Żmija 2016a]. In the research small agricultural farms were farms with the area of agricultural land, during the research, was 1 to 5 ha. When determining small agricultural farms, the author resigned from application of an economic criterion due to the fact that it was not possible to obtain a priori data relating to economic volume of a farm for determination of the tested population. Therefore, the tested group also includes small area and specialized agricultural farms, which envisaged their agricultural production for the market. [Żmija 2016a].

3. THE RESEARCH RESULTS

Most of the respondents were men (nearly 80% of those subject to the questionnaire) and the most numerous age group included persons, who were at least 40 (72.6%). The tested farmers were characterized by various education levels. The most numerous group included those with secondary vocational education (34.1% of respondents) and higher (27.7% of those tested). The least of respondents had secondary general education (6.4% of respondents) as well as primary or lower secondary education (7.1% of those tested). The respondents included both those with and without agricultural education. Their participation in the studied group was the same. The respondents were dominated by people with long experience in running a farm – nearly 95% of respondents declared that they have been running their farms over 10 years. More than two thirds of all tested respondents also reported to possess successors to keep the farm.

In almost all tested small farms the plant production was carried out and among the dominant crops, i.e. those that have the greatest economic significance for the farm, the surveyed farmers mentioned cereals (28.8%), ground vegetables (21.6%) and also protected crops (20.4%). Only slightly more than 25.0% of the surveyed farmers ran animal production. The most frequently kept animals were dairy cattle (61.4%), pigs (20,5%) as well as slaughter cattle (11.4%). Much less frequently, the laying poultry and horses were indicated (1.1% each).

The tested small farms were located in 88 communes of the Małopolskie Province. The largest number of respondents came from districts of Proszowice,

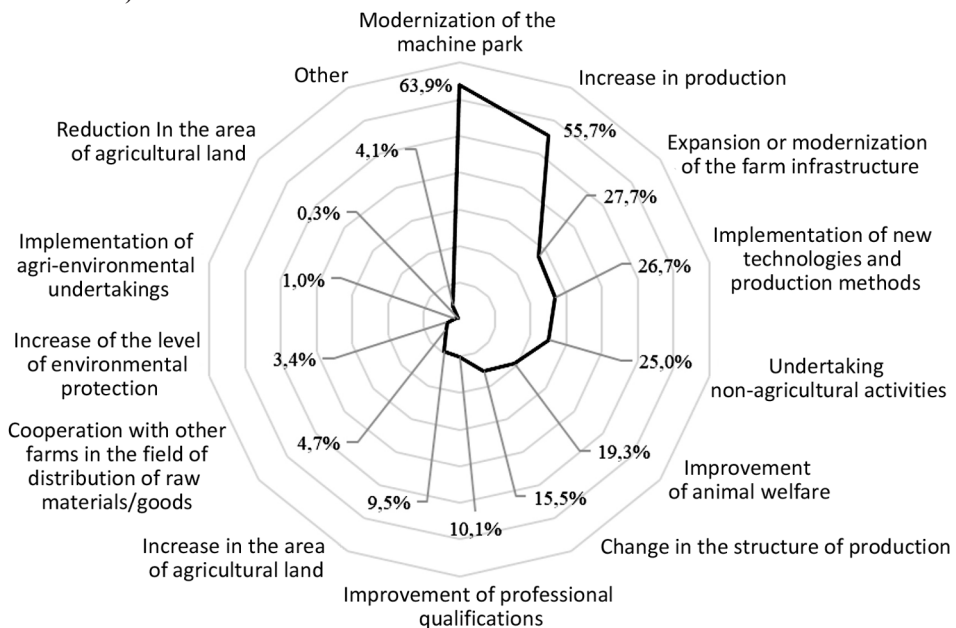
Kraków and Miechów (total of 93 surveys). The least number of surveys was carried out in the following districts: Chrzanów, Tatra and Suski district – a total of 11 and also in cities with city-districts (City of Cracow, City of Tarnów, City of Nowy Sącz).

Taking into account the size of the land resources of the tested farms from the Małopolskie Province, it can be stated that the largest group were those farms that had an area of agricultural land in the range of more than 3 to 5 ha. The share of these farms in the tested sample was nearly 84%. The smallest group included, however, small farms with an area of agricultural land in the range above 1 to 3 ha – their share was slightly over 16%. Therefore, the research involved mainly relatively large small farms.

In the years 2004-2015 the tested farms from the Małopolskie Province implemented projects with a total value of nearly PLN 76 million under the considered investment measures and the value of subsidies under these projects amounted to almost PLN 37.5 million. The largest investment outlay was incurred as part of such measures as: "Modernization of farms" as well as "Diversification towards non-agricultural activities", which were implemented under PROW 2007-2013. They amounted to over PLN 54 million, which accounted for over 71% of the value of all projects under study.

The implementation of investment projects as part of the considered activities contributed to many changes in the tested farms (fig. 1).

Figure 1. The most important changes that took place in the tested farms under the influence of investment projects implemented in 2004 – 2015 (percentage of respondents' indications)



Source: own study based on the carried out research.

Among the most important changes the respondents mentioned the modernization of the machine park (63.9%). Farmers most often spent aid measures within the implemented investment projects for the purchase of machinery, equipment, tools and equipment necessary on the farm. Over half of respondents (55.7%) also pointed to the increase in production on the farm, which was a consequence of the increase in the area of cultivation. The increase in the scale of production concerned mainly ground vegetables, protected crops as well as fruit. To a lesser extent, this increase concerned the production of cereals or potatoes. So, the tested farms focused rather on the specialized production, from which you can get more income than on increasing the production, which requires a larger area for it to be profitable. The increase in production on farms contributed to the increase in the degree of marketability of the surveyed farms by 6.5 percentage points in 2015 as compared to 2004. Investment projects also contributed to the expansion or modernization of the farm infrastructure (27.7% of responses) as well as implementation of new technologies and production methods (26.7% of responses). It is worth noting that 25% of respondents included undertaking non-agricultural activities to the most important changes that took place in small farms under the influence of the discussed investment projects in the years 2004-2015. The majority of the surveyed farmers were people, who run service activities, primarily in the field of construction services, services for agriculture or agritourism. Trading activity was of lesser interest, mainly in the field of fruit and vegetables wholesale or production, e.g. food processing or furniture production. It is worth noting that non-agricultural economic activity is an important element of the functioning of farms, both in Poland and throughout the European Union. The research conducted by various authors indicate that in Poland it has a special economic significance for small farms [Żmija 2017]. The choice of non-agricultural industry is one of the factors determining farmers' plans in the scope of running agricultural activity. The weaker connection of non-agricultural activities with agricultural sectors and farms, the more often it will be associated with the cessation of agricultural production on the farm in the future [Żmija 2016b]. To the other most significant changes in the functioning of farms the respondents included the improved animal welfare (19.3% of responses), a change in the structure of production (15.5% of responses) or improvement of professional qualifications (10.1% of responses).

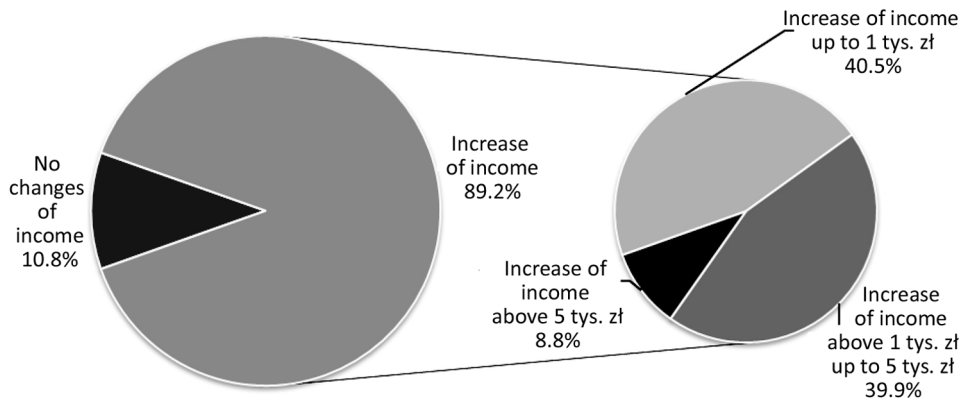
It should be noted that less than 10% of respondents indicated that the discussed investment projects contributed to the increase in the area of agricultural land of their farms, which is a disadvantaged situation, especially in the conditions of high agrarian fragmentation of farms from the Małopolskie Province. Taking into account only those farms that have increased their area under the influence of investment support, it should be stated that the area of agricultural land owned by these farms increased by 18.7% (41.1 ha). On average, this amounts to less than 0.8 ha per one farm, in which the area was increased. Referring this to the entire surveyed population, it means an increase in the area of agricultural land

by 3.7% as well as by 0.14 ha per one farm. The surveyed farmers most often indicated that they increased the area of arable land (increase by 17.4 ha), orchards (increase by 12.7 ha) as well as permanent grassland (increase by 11.0 ha).

The least frequently, as the most important changes in the functioning of small farms from the Małopolskie Province, the respondents mentioned undertaking cooperation with other farms in the field of distribution of raw materials or goods (4.7% of indications), changes related to the increase of the level of environmental protection (3.4% of responses) or implementation of agri-environmental undertakings (1.0% of responses). Negative changes, however, included a decline in employment and a reduction in the area of agricultural land, however, indicated by individual farmers.

Income is the basic economic category that expresses the positive effect of using production factors such as land, labour and capital (material and financial) in the management process. It is the result of a combination of mentioned production factors as well as of human entrepreneurship. The purpose of the conducted research was also to determine changes in the incomes of small farms from the Małopolskie Province, using the discussed investment support in the years 2004-2015 (fig. 2).

Figure 2. Changes in the estimated income of the surveyed farms under the influence of investment projects implemented in the years 2004-2015 (percentage of respondents' indications)



Source: own study based on the carried out research.

The vast majority of the surveyed farmers, assessing the changes that occurred in the level of annual income in the period of 2004-2015 under the influence of implemented investment projects, indicated that they have increased. In case of the largest group of respondents, however, this increase was not large and amounted to 1 thousand PLN annually. The group of farmers was not much less numerous, for whom the increase in the annual level of income fluctuated in the range above 1 thousand up to 5 thousand PLN. The smallest group of respondents indicated, however, that this increase exceeded the value of 5 thousand PLN annually.

4. SUMMARY AND CONCLUSIONS

The influence of investment support as a part of WPR in the years 2004-2015 on the functioning of small farms from the Małopolskie Province was rather one-sided and concerned mainly the increase of their material capital, contributing to the modernization of their production. The implemented investment projects did little to change the agrarian situation of the surveyed farms, as few of them decided to buy land. This support, however, contributed to more efficient use of land resources owned by small farms by increasing the area of crops, which increased the scale of production. The researched farms that increased plant production focused on specialized production, which can be implemented on a relatively small area and which brings a significant income to the farm. A large part of the surveyed farmers indicated that the income from the farm as a result of the implemented investments increased, but this increase was not usually high. Admittedly, such a high percentage of small farms showing an increase in income may result from the sampling method, however, these studies show that among small farms there are also those that are related to the market and want to develop themselves, bringing income to their owners. Implementation of the surveyed investment projects has, to a small extent, influenced the construction of human capital and small farmers are still reluctant to cooperate with each other. Therefore, further efforts are needed to change these attitudes and increase awareness of the benefits of cooperation.

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ODDZIAŁYWANIE WSPARCIA INWESTYCYJNEGO REALIZOWANEGO W RAMACH WPR NA FUNKCJONOWANIE MAŁYCH GOSPODARSTW ROLNYCH

Streszczenie: Celem artykułu jest wskazanie najważniejszych zmian jakie zaszły w funkcjonowaniu małych gospodarstw rolnych z województwa małopolskiego korzystających w latach 2004-2015 ze wsparcia inwestycyjnego realizowanego w ramach WPR. Badania wykazały, że oddziaływanie wsparcia było raczej jednostronne i dotyczyło przede wszystkim powiększania kapitału rzeczowego. Zrealizowane projekty inwestycyjne w małym stopniu przyczyniły się do zmian w sytuacji agrarnej tych gospodarstw. Wsparcie to przyczyniło się jednak do bardziej efektywnego wykorzystania zasobów ziemi poprzez zwiększenie areалу upraw, co spowodowało zwiększenie skali produkcji. Duża część badanych rolników wskazała, że dochody z gospodarstwa rolnego na skutek realizowanych inwestycji zwiększyły się, jednak wzrost ten nie był zazwyczaj wysoki.

Słowa kluczowe: wspólna polityka rolna, małe gospodarstwa rolne, dochody gospodarstw rolnych.

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