THE LEVEL OF LABOUR PROFITABILITY AND DEVELOPMENT OPPORTUNITIES OF FARMS IN POLAND

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Abstract

This article proposes the classification of farms of natural persons according to the level of farm income per unit of work of a farmer and farmer's family members. One hour of family labour was adopted as such unit. According to this criterion, farms were divided into three classes. In the first one, the unit income is lower than the average payment for employed labour in agriculture. In the second one, this income is higher than the average payment for employed labour in agriculture but lower than the average payment for labour in the national economy. Farms of the third class allow earning income higher than the average payment for labour in the national economy. Those from the first class are called auxiliary farms, from the second – transitional, and from the third – developmental.

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The research included a panel of 5471 farms with economic size above EUR 4 thousand SO and covered by the monitoring of the Polish FADN in 2009-2017. The average share of auxiliary, transitional and developmental farms in the analysed period amounted to 31.2%, 12.1% and 56.5%, respectively. Auxiliary and transitional farms did not show the ability to develop. Developmental farms showed this ability. It was estimated on this basis that in 2016 there were 147.2 thousand of them in Poland, which means that the share of this group in the national population of farms owned by natural persons was 10.6%.

Introduction and a short review of literature on the subject

In countries with a market economy, there are different trends in the formation of labour costs, prices of means of production for agriculture and sale prices of agricultural products. Their essence is a higher growth rate of labour costs in the national economy than of the prices of means of production for agriculture, and these of sale prices of agricultural products (Czyżewski, 2017). In 1995-2016, unit labour costs (mainly remuneration) increased more than six times, the prices of means of production purchased by farmers increased more than three times, and sale prices of agricultural products more than two times (Mirkowska and Ziętara, 2019). Therefore, the situation of farms without an active income policy for the agricultural population would be very difficult.

Gaining EU membership in 2004 allowed significantly increasing the level of budget support for farms. Its level was increasing gradually until 2010, but was accompanied by a rise in costs related to, inter alia, an increase in the requirements of the food industry regarding the quality of raw materials of agricultural origin, as well as to the costs of implementation of cross compliance increasing until 2013 in relation to the needs of: protecting the environment, protecting human health and animal welfare (Józwiak, 2018).

In this situation, income from a family work unit became an important determinant defining the behaviour of agricultural producers. Farmers who wanted to maintain a satisfactory level of income of their family faced a dilemma – to attempt to increase farm income1 or to seek sources of income outside the farm. It may come from work on own farm, from development of non-agricultural economic activity, from seasonal gainful work at a neighbouring farm or from seasonal or permanent work in non-agricultural sectors of the economy, construction, services, etc.

Compared to larger farms, small ones are characterised by a small utilised agricultural area and lower outlays of current means of production per unit but larger

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[1] Satisfying farm income – can be determined at two levels: A – in relation to payment for employed labour in agriculture, or B – in relation to payment in the national economy. The income parity can be expressed as farm income per 1 hour of work of a farmer and farmer's family members on the farm or per family work unit, i.e. 1 FWU (corresponding to 2120 hours of work in a year).

unit labour input per area of land used. This is the reason for low labour productivity which in turn results in low income calculated per unit of this production factor. Thus, in literature on the subject one can find an opinion about the decline of such farms (Wojewodzic, 2010), information on the role of non-agricultural income in the lives of families owning of small farms (Augustyńska-Grzymek, 2011) and about the problems of their owners with succession (Dudek, 2016).

It was estimated (Józwiak, 2017) that unit income from work on a farm of up to EUR 15 thousand of SO[2] (the equivalent of about PLN 60 thousand) in 2013 was on average 34.9% lower than the rate of a person employed in agriculture and 57.9% lower than the national average parity rate. The solution was resignation from the reproduction of production assets, because then the gross income from the farm, calculated per hour of family labour, was slightly higher than the pay rate of an agricultural worker, but still 34.9% lower than the average pay rate in the national economy.

As a result, owners of small farms showed limited interest in the reproduction of their production assets. As a result of this phenomenon, only in 2010-2013 their number decreased by 10.2%, and in 2013 this characteristic covered about 77% of all national farms owned by natural persons.

Only a small part of small farms took measures to increase the value of agricultural production to the extent enabling transition to the group of larger farms (Żmija, 2016). The author's analysis covered 296 farms in the Małopolskie Voivodeship with the area of 1-5 ha of agricultural land which in 2004-2015 received direct payments and at least once received support for the implemented investment. In 2015, the average income of these farms was PLN 55.5 thousand, and 73.6% of the families of their owners derived more than half of their total income from agricultural production. Changes in the production structure to a large extent led to the specialisation of farms in crops generating large income per unit of utilised agricultural area. Around 22% of farms specialised in the production of field vegetables, and about 20% in crops under shelter. On the national scale, the share of such farms was significantly smaller and in 2013 it was 5.0% and 0.5%, respectively.

Due to these observations it was possible to form a view that, apart from small farms with declining features, there were small "drifting" farms with the reproduction of property close to a straight line, but also those which increased the value of production in favourable circumstances, and if this growth was sufficiently large, moved to the group of medium-sized farms.

Therefore, the number of small farms was constantly decreasing. The majority of farms were "drifting," but every year the part characterised by decline disappeared, and also all those which thanks to the RDP support were able to increase production moved to the group of medium-sized farms. It was established (Józwiak, 2017) that on a national scale in 2010-2013 about 14.1 thousand of developing small farms, i.e. slightly more than 1% of their total number, moved to the group of medium-sized ones.

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[2] SO – Standard Output – value of production from a given activity calculated using the indicative method as the average value from 5 years in a given macro-region and expressed in EUR. Applied as a measure of the economic size of a farm since 2010 (Bocian, Osuch and Smolik, 2017).

In 2013, medium-sized farms had average income per family work unit higher than the average rate of a person employed in agriculture but lower than the average national pay rate. The number of characterised farms was much smaller than that of auxiliary farms and was slightly changing from one year to another. It was constantly fed by developing auxiliary farms. In turn, a part of transitional farms, like in the case of developing farms of the previous analysed group, enlarged the group of large farms. It was estimated (Józwiak, 2017) that in 2010--2013 for this reason the number of large farms increased about 13.9 thousand on the national scale.

The number of large farms was constantly growing, but it cannot be ruled out that every year a small part of them ended their independent existence. The average income of large farms per family work unit in 2013 was higher than the average national pay rate.

Objective of research, research methods and sources of research materials

The aim of the study is to determine changes in the structure of farms of natural persons in 2009-2017, taking into account the level of income obtained from the farm per unit of work of a farmer and farmer's family members in the farm owned and the characteristics of separate classes of farms taking into account their development capacities.

As it was presented above, an important issue, both from an economic and social point of view, is the level of income obtained from the farm, and consequently also per unit of work of a farmer and farmer's family members. As also mentioned before, such a unit can be a man-hour (MH) or a conversion unit (FWU). Thanks to this, the level of remuneration of a farmer and other members of the farmer's family for their work on the farm can be assessed by comparing it with the parity income A and B. The former is equal to the average unit pay rate of employed labour in agriculture, and the latter is the average unit pay rate in the national economy. Various situations are possible.

Due to the fact that a unit income obtained from the work on the farm is smaller than the level of parity A, the farmer is confronted with the problem of whether to continue running the farm or give up and try to take up a job as an employed person. The possibilities of farmers in the area of working outside the farm are limited, although they have been growing recently. They depend on the qualifications and the condition of the economy in the immediate environment (Sikorska, 2013). A farmer who resigns from running a farm may take up a job as an employed person at another farmer, accepting the level of remuneration of employed workers in agriculture (parity A). A farmer with higher qualifications may look for a job in non-agricultural activities with chances of obtaining remuneration at the level of the average hourly rate in the national economy (parity B).

There is also a possibility (Józwiak, 2017) that an agricultural family receiving a unit income from work in the owned farm lower than the level of parity A, does not give up running their farm, but its members undertake paid employment outside

the farm as employed people, and at the same time the production is reorganised or modernised with support from the RDP. In the first one of these cases, which occurs more frequently (Dudek, 2016), the production is simplified which results in a reduction of labour input on the farm and an increase in agricultural income per unit of labour input. However, farm income is decreasing. The second case occurs less frequently (Dudek, 2016; Żmija, 2016), but results in an increase on farm income.

The level of income obtained from employed labour in agriculture (parity A) and income from work in other sectors of the economy (parity B) can be the basis for the classification of farms. According to these criteria, farms can be divided into: auxiliary, transitional and developmental. Auxiliary farms include those in which farm income per family work unit was lower than the payment for employed labour in agriculture, and the share of farm income in the income of the farm family was less than 50%.

The class of transitional farms (also called farms "at the crossroads") includes those in which farm income per family work unit was larger than the unit pay for employed labour in agriculture but smaller than the unit income in the national economy. They have limited development opportunities. Some of them, however, have such opportunities thanks to higher level of qualifications of owners and the use of subsidies, and will move to the class of developmental farms, and some of them without these opportunities feed the class of auxiliary farms or disappears. Characteristic feature of this group of farms is that their number is smaller compared to the number of farms in the other two groups and the fact that it undergoes slight changes in plus or in minus.

In turn, developmental farms are those in which farm income per unit of family labour input is equal to or higher than the unit income obtained by a person employed in the national economy (parity B). This also means that the farm income covers the conventional payment for work of the farmer and farmer's family members at the level of parity B and fully or partially the cost of using own land and capital. The number of the analysed group of farms is increasing every year.

The classification of farms according to the level of income obtained per unit of family labour input may be more useful in creating agricultural and social policy than the criteria applied so far.

The basic source of research materials was the panel of farms covered by the monitoring of the Polish FADN[3] in 2009-2017. The panel includes 5471 farms, which is approximately 45.6% of the population of farms covered by the monitoring of the Polish FADN. The calculations were made for the whole group of farms covered by the panel.

The study was carried out taking into account mean values from the following three-year periods: 2009-2011, 2012-2014 and 2015-2017. Three-year periods were adopted to avoid annual fluctuations.

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[3] Polish FADN – System for collecting and using accountancy data from farms.

The following indicators were included in the analysis of the specified classes of farms:
– Economic size of the farm (thousand of SO),
– Area of the farm (ha of UAA),
– Share of leased land (%),
– Labour input (AWU/farm),
– Share of employed labour,
– Average remuneration of employed labour in agriculture (PLN/h),
– Farm income per 1 FWU (PLN/h),
– Income parity indicator (A),
– Income parity indicator (B),
– Competitiveness index.[4]

For the distinguished periods, the average pay for employed labour in agriculture and in the national economy was calculated per 1 hour of work of FWU. The interest rate on 10-year bonds was also used as the basis for determining the cost of using equity, being the basis for calculating the competitiveness index. The relevant numbers are given in Table 1.

Table 1

The level of remuneration of employed labour in agriculture and in the national economy and interest rate on 10-year bonds (2009-2017)

Periods	Payment for employed labour in agricultur (PLN/h)	Payment for work in the national economy (PLN/h)	Indicator (payment for work in the national economy = 100)	Interest rate on 10-year bonds =100
2009-2011	8.27	11.81	70.0	5.9
2012-2014	9.17	13.63	67.3	5.2
2015-2017	12.50	15.38	81.3	2.6

Source: own study.

The difference between payment for employed labour in agriculture and in the national economy should be emphasised. In 2009-2014, payment for employed labour in agriculture was about 30% lower than in the national economy. In the subsequent period, this distance decreased to around 20%. These figures indicate the impact of increasing pays in the national economy on labour costs in agriculture. In the analysed period, the interest rate on 10-year bonds decreased which had an impact on the cost of using equity.

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[4] The competitiveness index (CI) was calculated as the quotient of farm income and estimated costs of family labour (according to the average net salary in the national economy), own land (according to the rent rate) and equity (according to the interest rate of ten-year bonds) (Kleinhanss, 2015).

The number and structure of the studied farms compared to the general population

The number and structure of the studied farms compared to the general population are presented in Table 2. Analysis of the numbers indicates a stable structure of the panel of studied farms. The share of very small farms (EUR 2-8 thousand of SO) in the analysed period was on average only 1.4%, with a range of 0.7-2.1%. The share of small, medium small and medium large farms was: 26.3%, 31.2% and 26.6%, respectively, with a very small range. The share of large farms was smaller and amounted to around 14%, with a range of 12.6-15.7%. The share of very large farms in the studied panel was negligible, similarly to the smallest farms and on average amounted to 0.33%, with a range of 0.3-0.4%.

Table 2

The number and structure of the studied farms in 2009-2017 and the structure of the general population in 2013 and 2016

Total	Economic size classes of farms (EUR thousand of SO)					
	2-8	8-25	25-50	50-100	100-500	>=500
2009-2011						
5471	39	1439	1817	1471	689	16
100.00	0.7	26.3	33.2	26.9	12.6	0.3
2012-2014						
5471	70	1446	1715	1441	783	16
100.0	1.3	26.4	31.4	26.3	14.3	0.3
2015-2017						
5471	115	1427	1590	1456	860	23
100.00	2.1	26.1	29.1	26.6	15.7	0.4
On average in 2009-2017						
5471	75	1438	1707	1456	777	18
100.00	1.4	26.3	31.2	26.6	14.2	0.33
Structure of the general population in 2013						
100.00	53.2	28.9	10.6	4.9	2.2	0.2
Structure of the general population in 2016						
100.00	51.3	28.9	10.7	5.8	3.0	0.3

Source: Polish FADN data, *Charakterystyka gospodarstw rolnych w 2013 i 2016 r.*; GUS (1996-2017).

Table 2 also shows the structure of the general population of farms with an economic size of EUR 2 thousand and larger in 2013 and 2016. It was stable. The general population was dominated by very small farms. Their share in these years decreased about 2% and in 2016 amounted to 51.3%. In both populations, the share of small farms (EUR 8-25 thousand of SO) was the same and amounted to 28.9%. In the classes of medium small, medium large and large farms, the share of these classes in the panel was 21, 21.1 and 11.6 pp larger, respectively. The share of very large farms

was similar in both populations. In the general population, it was about 0.30%, while in the panel – 0.33%. Despite the differences in the structure of farms between the general population and the panel, the correctness of the statement that the features of the farms determined in the panel are also present in the general population but only for farms with EUR 8 thousand of SO and more can be taken with high probability.

Production potential, income situation of the studied farms and their development capabilities

The studied farms from the panel were divided into three previously described classes: auxiliary, transitional and developmental, according to the level of farm income per 1 family work unit (FWU), in accordance with the criteria specified above. The numbers characterising the production potential of these classes of farms are given in Table 3. The structure of the studied farms was quite stable in subsequent periods. The share of auxiliary farms was about 32%, with the range from 29.4% to 35.6%. It showed an upward trend. The share of transitional farms was definitely lower. It was in the range from 14.0% to 7.9%, showing a downward trend. The share of developmental farms was the largest and stable, and amounted to approximately 56.6%, with very low variability. The studied farms differed in economic size. On auxiliary farms, it was ranging from EUR 26.3 thousand of SO to EUR 28.2 thousand of SO and showed an upward trend in subsequent periods. On transitional farms, it was ranging from EUR 35.7 thousand to EUR 38.4 thousand and also showed an upward trend. It was the highest on developmental farms where it was in the range from EUR 80.1 thousand of SO to EUR 90.3 thousand of SO. It also showed an upward trend. Similar trends occurred in the area of farms. On auxiliary farms it was in the range from 17.2 to 19.2 ha of utilised agricultural area, in transitional from 22.2 to 25.8 ha and in developmental from 48.6 to 57.1 ha. In all classes it showed an upward trend. Similar trends occurred in labour inputs which increased in subsequent classes but decreased in subsequent periods. Labour input in auxiliary and transitional farms was similar. In the last period, it amounted to 1.7 AWU per farm. Larger labour input was observed on developmental farms where on average it amounted to 2.2 AWU. The share of employed labour also varied. On farms of the first two classes it was around 5%, while in the developmental farms it was around 20%. The analysed farms also differed in the technical equipment of labour, determined by the value of assets per AWU. It showed an upward trend in subsequent periods. In the last period, on developmental farms it amounted to 445 PLN thousand/AWU and was by 138% and 100% higher, respectively, than the equipment of labour on auxiliary and transitional farms.

The numbers characterising the income situation of specified classes of farms are presented in Table 4. The farm income obtained per family work unit (FWU) was presented in comparison with the payment for employed labour in agriculture and salary in the national economy.

Table 3

*Features of the studied farms depending on the level of farm
income per unit of labour input in relation to remuneration
in agriculture and in the national economy*

Years	Classes of farms by the level of farm income (PLN/h):		
	auxiliary	transitional	developmental
The number and structure of farms (number/%)			
2009-2011	1606/29.4	767/14.0	3098/56.6
2012-2014	1577/28.8	792/14.5	3102/56.7
2015-2017	1949/35.6	434/7.9	3088/56.5
Economic size of farms (EUR thousand of SO)			
2009-2011	26.3	35.7	80.1
2011-2014	26.6	35.7	86.2
2015-2017	28.2	38.4	90.3
The area of farms (ha of UAA)			
2009-2011	17.2	22.2	48.6
2012-2014	17.2	23.2	57.1
2015-2017	19.2	25.8	53.6
The share of leased area (%)			
2009-2011	22.1	25.8	32.3
2012-2014	21.5	25.9	32.1
2015-2017	23.4	24.8	31.1
Labour input (AWU/farm)			
2009-2011	1.8	1.9	2.2
2012-2014	1.8	1.9	2.2
2015-2017	1.7	1.7	2.2
Share of employed labour (%)			
	4.0	5.8	19.3
2012-2014	5.6	6.8	20.3
2015-2017	4.6	4.0	18.4
Technical equipment of labour (PLN thousand/AWU)			
2009-2011	171.5	195.1	361.1
2012-2014	178.3	196.8	422.2
2015-2017	186.6	222.8	445.2

Source: own study.

The level of payment for employed labour in agriculture was positively correlated with the size of farms. In the analysed periods on developmental farms this rate was 8.4, 9.4 and 12.6 PLN/h, respectively, and in relation to the auxiliary ones, it was 9.1%, 13.2% and 5.9%, respectively, higher in the analysed periods. In addition, the level of this payment increased in subsequent periods. In 2015-2017 it was higher than in 2009-2011, and in subsequent classes it was 54.4%, 46.3% and 50%, respectively, higher. Farm income in PLN/h showed an upward trend in subsequent periods. In the third period, compared to the first one, it was 45%, 38% and 26.9%, respectively, higher in subsequent classes. The differences between classes were definitely greater. Farm income in the class of auxiliary farms in subsequent periods was 4.0, 4.4 and 6.4 PLN/h, respectively, and was, respectively, 6.7, 8.3 and 5.7 times lower than income on developmental farms.

The indicator of parity A on auxiliary farms was about 51%, with a range of 48-53.2%. On transitional farms it was higher and amounted to around 118%, with the range of 110.4-122.1%. The highest value of the parity A indicator was achieved by developmental farms. On average, it amounted to 399%, with the range of 343.2-444.9%. On transitional and developmental farms, the value of the indicator in the third period was lower than in the first period. The indicator of parity B on auxiliary and transitional farms was lower than 100% and on average amounted to 37% and 85.5%, respectively, with a small range. Only on developmental farms the value of the indicator was higher than 100% and amounted to 288% on average.

The competitiveness index (CI), determined by the rate of farm income to the cost of using own production factors, "corresponded" with the indicators of income parity A and B. As it was larger than 1, the farm income covered payment for work of a farmer and farmer's family members (at the level of parity B), the cost of using own land determined by the level of rent (in a given class) and the cost of using equity according to the interest rate of 10-year bonds. In the class of auxiliary and transitional farms, the value of the competitiveness index was lower than 1, it amounted to 0.3 and 0.6, respectively. This means that the farms of these classes were devoid of development opportunities, because they did not have own resources of the right size. Only developmental farms had development opportunities, with the competitiveness index amounting to 1.4 on average.

Farm income and income parity on the studied farms in 2009-2017

Years	Classes according to the level of farm income per unit of labour input (PLN/h):		
	auxiliary	transitional	developmental
Average pay for employed labour in agriculture (PLN/h)			
2009-2011	7.70	7.80	8.40
2012-2014	8.30	8.30	9.40
2015-2017	11.90	11.20	12.60
Farm income (PLN/h)			
2009-2011	4.0	10.0	33.8
2012-2014	4.4	11.2	40.8
2015-2017	6.4	13.8	42.9
Indicator of parity A (%)			
2009-2011	53.2	120.9	408.7
2012-2014	48.0	122.1	444.9
2015-2017	51.2	110.4	343.2
Indicator of parity B (%)			
2009-2011	37.3	84.7	286.2
2012-2014	32.3	82.2	299.3
2015-2017	41.6	89.7	278.9
Competitiveness Index			
2009-2011	0.3	0.6	1.3
2012-2014	0.2	0.5	1.4
2015-2017	0.4	0.7	1.6

Source: own study.

An attempt to estimate the number and share of farms able to develop in the general population

Table 5 shows the number of farms in the general population with an economic size of EUR 2 thousand and larger in 2013 and 2016.

Table 3 indicates that the average economic size of individual classes of farms was: EUR 27.0 thousand of SO for auxiliary farms, EUR 36.6 thousand of SO for transitional farms and EUR 85.5 thousand of SO for developmental farms. On this basis, it can be stated that out of the general population farms able to develop are certainly those with an economic size from the class of EUR 50-100 thousand and

larger. In 2013, the number of such farms was 75.63 thousand, and in 2016 – 92.66 thousand. Thus, it increased by 17.03 thousand, or 22.5%. It can also be assumed that a part of farms from the class of EUR 25-50 thousand has the ability to develop. Assuming hypothetically that about 50% of farms in this class have this development capacity, the number of farms with the ability to develop in 2013 and 2016 was 129.79 thousand and 147.24 thousand, respectively These numbers correspond with the results of previous studies by Józwiak.[5]

Table 5

The number and structure of farms in the general population in 2013 and 2016

Total	Economic size classes of farms (EUR thousand of SO)					
	2-8	8-25	25-50	50-100	100-500	>=500
General population in 2013 (thousand %)						
1026.21	545.62	296.63	108.33	50.62	22.59	2.42
100.00	53.2	28.9	10.6	4.9	2.2	0.23
General population in 2016						
1019.34	522.56	294.96	109.16	58.93	30.28	3.45
100.00	51.3	28.9	10.7	5.8	3.0	0.3

Source: Polish FADN data, *Charakterystyka gospodarstw rolnych w 2013 i 2016 r.*; GUS (1996-2017).

Conclusions

The article presents a proposal for the qualification of farms owned by natural persons according to the level of income obtained from an farm per one hour of work of a farmer and farmer's family members. Guided by the relation of this measure to the average hourly pay rate for employed labour in agriculture and in the national economy, the panel of farm covered by the monitoring of the Polish FADN in 2009-2017 was divided into three classes: auxiliary farms, where farm income per hour of family work was lower than payment for employed labour in agriculture, transitional farms (also called farms "at the crossroads"), in which farm income was higher than payment for employed labour in agriculture but lower than the level of salary in the national economy, and developmental farms, which obtained farm income per hour of labour input on the owned farm larger than the unit pay rate for work in the national economy.

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[5] The monograph (Józwiak, 2013) states that in 1999 the amounts of net agricultural income, expressed in EUR and per unit of work of a farmer and farmer's family members in the farm owned, were higher on 25 thousand of the Polish farms than the average size of this indicator calculated for analogous groups of farms in the EU countries. It was also noted that in 2006-2008 as much as 96.5 thousand of the Polish farms achieved (slightly adjusted) agricultural income per family work unit higher than the statutory minimum income.

The results of the conducted analyses support formulation of the following conclusions:

− The structure of the sample of farms studied (panel covering 2009-2017) was quite stable. The average share of auxiliary, transitional and developmental farms was 31.2%, 12.1% and 56.5%, respectively.

− Auxiliary farms did not have development capacity, even though on average their economic size was EUR 27 thousand of SO and they had an average of 17.9 ha of utilised agricultural area. Transitional farms also did not have development capacity, with the average economic size of EUR 36.6 thousand of SO and average area of 23.7 ha of UAA. Developmental farms in terms of economic size were in the range of EUR 25-50 thousand of SO. Their average economic size was EUR 85.5 thousand of SO and they had an average of 53.5 ha of UAA.

− It was estimated on the above basis that the number of farms of natural persons in the country able to develop in 2013 and 2016 was 129.8 thousand and 147.2 thousand, respectively, and their share in the total national number of farms of this type was 9.3% and 10.6%.

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POZIOM DOCHODOWOŚCI PRACY A MOŻLIWOŚCI ROZWOJU GOSPODARSTW ROLNYCH W POLSCE

Abstrakt

Artykuł zawiera propozycję klasyfikacji gospodarstw rolnych osób fizycznych według poziomu dochodu z gospodarstwa w przeliczeniu na jednostkę nakładów pracy własnej rolnika i członków jego rodziny. Za taką jednostkę przyjęto godzinę pracy własnej. Według tego kryterium gospodarstwa podzielono na trzy klasy. W pierwszej dochód jednostkowy jest mniejszy od średniej opłaty pracy najemnej w rolnictwie. W drugiej dochód ten jest większy od średniej opłaty pracy najemnej w rolnictwie, ale mniejszy od średniej opłaty pracy w gospodarce narodowej. Gospodarstwa klasy trzeciej natomiast pozwalają uzyskiwać dochód większy od średniej opłaty pracy w gospodarce narodowej. Te z klasy pierwszej nazwano pomocniczymi, z drugiej – przejściowymi, a z trzeciej – rozwojowymi.

Badaniami objęto panel 5471 gospodarstw o wielkości ekonomicznej powyżej 4 tys. euro SO objętych monitoringiem Polskiego FADN w latach 2009-2017. Średni udział gospodarstw pomocniczych, przejściowych i rozwojowych w badanym okresie wynosił odpowiednio 31,2; 12,1 i 56,5%. Gospodarstwa pomocnicze i przejściowe nie posiadały zdolności do rozwoju. Taką zdolnością wykazały się gospodarstwa rozwojowe. Oszacowano na tej podstawie, że w 2016 roku było ich w Polsce 147,2 tys., a to oznacza, że udział tej grupy w populacji krajowej gospodarstw rolnych będących w posiadaniu osób fizycznych wynosił 10,6%.

Słowa kluczowe: gospodarstwa rolne, dochód z gospodarstwa, gospodarstwa pomocnicze, przejściowe i rozwojowe.