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Sources of income among small farms in Poland – quantitative analysis

Źródła dochodu wśród małych gospodarstw w Polsce – analiza ilościowa

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Abstract. Additional sources of income in farms remains in strong connection with maintaining their existence and development. Modernization and changes in agriculture do not take place if we focus only on traditionally perceived agricultural production. The possibilities of taking additional activities and use diverse sources of income among small farms are wide and varied, and still there are novel ideas in this field. Type of activity undertaken by small farms owners depends on their individual features, ingenuity and creativity.

Keywords: small farms, sources of income, Poland

Streszczenie. Dodatkowa źródła dochodów uzyskiwane przez małe gospodarstwa rolne pozostaje w ścisłym związku z utrzymaniem ich kondycji ekonomicznej oraz rozwojem. Skupienie się wyłącznie na produkcji rolnej w znacznym stopniu ogranicza modernizację i zmiany w rolnictwie. Możliwości podejmowania dodatkowych działań na obszarach wiejskich i dzięki temu korzystania z dodatkowych źródeł dochodów są szerokie i zróżnicowane, a wciąż istnieją nowe pomysły w tej dziedzinie. Rodzaj działalności podejmowanej przez właścicieli małych gospodarstw zależy od ich indywidualnych cech, pomysłowości i kreatywności.

Słowa kluczowe: małe gospodarstwa rolne, dodatkowe źródła dochodów, Polska

Introduction

Farming in Poland is quite diverse in terms of the type of agricultural production undertaken, its efficiency, as well as farm size. Actions undertaken to ensure the continuity of operation, in the face of strong competition in the market for food products, must

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consider the peculiarities of these farms. Small farms face particular challenges that demand diversification of their sources of income (Lerman, 1999; Chaplin et al., 2007; Kobus and Wąs, 2017). To this end, they should use labour resources more efficiently. The effort dedicated to farm work, combined with the low level of mechanization, has not been reflected in financial results. Small farms also hold capital in the form of buildings, equipment, and farm animals. Attempts by farmers to earn money without having to seek employment outside of agriculture and their own place of residence is a sign of entrepreneurship. For those open to new challenges, there is no shortage of opportunities to supplement their earnings.

Conceptual framework

The socio-economic conditions of small farms in Poland

Farms in Poland are changing dynamically from year to year, in terms of their number, type of activity undertaken, average area, economic efficiency and their significance on the national and regional (voivodship) scale (Tab. 1).

The last full study of their situation, the General Farm Survey from 2010, provides significant information which is important for the topic of the work presented here. The group of farms that is most numerous both across the entire country and in specific voivodships (considering farms over 1 ha in area) are those between 1 and 5 ha AL[1], which testifies to their importance in the Polish rural economy (a sole exception here is the Warmińsko-Mazurian Voivodship, where the largest share of farms in total belongs to those over 15 ha AL in area). The number of active farms engaged in agricultural activity in a given group increases with size. For the group from 1 to 5 ha AL, a relatively small share of farms engaging in agricultural activity compared to the total figures for this group (coming in at below 90%) is typical for the Silesia, Lubuskie, Pomerania, Western Pomerania and Świętokrzyskie voivodships.

In 2010, agricultural activity was undertaken by nearly one and a half million individual farms in Poland over 1 ha AL (in other words those whose owners meet the minimum AL area requirement required to qualify for insurance under the Agricultural Social Insurance Fund (KRUS[2]). The highest number farms are located in Mazowieckie, Lubelskie and Małopolskie voivodships, where they make up 15.25%, 12.54% and 10.17% respectively of all individual farms active in Poland. The area structure of farms over 1 ha AL in size shows that in the voivodships in which the number of farms is – in absolute terms – high (exceeding 90,000), as area increases the number of farms belonging to a given group decreases (a sole exception here is Wielkopolskie Voivodship, where over 120,000 farms are active and the share of the group of farms over 15 ha in size was larger than the group from 10 to 15 ha AL) (Tab. 2).

[1] AL – Agricultural land.

[2] KRUS – Kasa Rolniczego Ubezpieczenia Społecznego or Agricultural Social Insurance Fund.

Table 1. Number of individual farms in Poland in specific voivodships in 2010 as well as their share of specific farm groups by area, that engage

Specification	Number of farms											
	Total	Those engaged in agricultural activity (%)	Up to 1 ha	Those engaged in agricultural activity (%)	1–5 ha	Those engaged in agricultural activity (%)	5–10 ha	Those engaged in agricultural activity (%)	10–15 ha	Those engaged in agricultural activity (%)	15 ha and more than 15 ha	Those engaged in agricultural activity (%)
Polska	2 273 284	83,00	714 871	56,89	861 440	91,71	351 462	98,46	152 173	99,46	193 338	99,71
łódzkie	169 468	85,29	33 949	43,11	66 971	92,43	41 209	98,83	15 314	99,68	12 025	99,85
mazowieckie	272 445	89,67	38 745	55,61	109 754	91,20	66 987	98,34	28 869	99,63	28 090	99,80
małopolskie	286 275	77,52	123 953	57,67	136 930	91,57	19 772	98,45	3 312	99,21	2 308	99,48
śląskie	154 177	63,45	81 313	47,55	56 155	76,61	10 307	95,30	3 009	98,47	3 393	98,88
lubelskie	260 098	90,58	68 246	70,45	104 171	96,22	53 147	99,34	18 182	99,82	16 352	99,93
podkarpackie	263 259	85,10	117 382	72,99	119 950	94,10	19 546	97,97	3 250	99,08	3 131	99,39
podlaskie	105 197	88,44	18 478	47,76	26 469	91,93	22 240	98,66	15 863	99,67	22 147	99,89
świętokrzyskie	145 530	80,63	39 810	50,42	71 107	88,75	24 893	98,43	5 855	99,45	3 865	99,25
lubuskie	43 025	71,77	19 511	47,60	12 317	87,06	4 343	94,61	2 246	97,60	4 608	99,15
wielkopolskie	161 862	88,48	38 928	55,23	47 382	97,84	30 215	99,57	19 288	99,83	26 049	99,90
zachodnio-pomorskie	47 522	79,67	15 962	51,97	12 949	87,93	5 709	95,34	3 799	97,50	9 103	99,24
dolnośląskie	105 106	78,58	42 854	54,03	32 367	92,64	13 473	97,65	6 151	98,96	10 261	99,43
opolskie	44 568	81,90	16 392	53,65	12 973	96,58	5 848	99,71	3 043	99,80	6 312	99,94
kujawsko--pomorskie	88 326	87,99	20 580	52,83	21 961	96,51	16 492	99,38	10 713	99,86	18 580	99,91
pomorskie	59 616	77,34	17 791	36,69	15 555	88,13	9 388	97,19	6 295	98,75	10 587	99,47
warmińsko--mazurskie	66 812	79,95	20 979	44,05	14 429	91,50	7 893	96,85	6 984	98,65	16 527	99,46

Source: Author's calculations based on the Bank of Local Data (Bank Danych Lokalnych)

Table 2. Area structure of individual farms engaged in agricultural activity in Poland, 2010

Specification	Individual farms engaged in agricultural activity:			Area structure of farms greater than 1 ha in size (%)			
	Total number of farms	Number of farms up to 1 ha	Number of farms more than 1 ha	1–5 ha	5–10 ha	10–15 ha	15 ha and more than 15 ha
Polska	1 886 888	406 661	1 480 227	53,37	23,38	10,23	13,02
łódzkie	144 534	14 362	128 997	47,41	31,46	11,82	9,31
mazowieckie	244 314	21 997	225 664	45,08	29,42	12,84	12,66
małopolskie	221 916	70 714	150 497	83,25	12,99	2,19	1,57
śląskie	97 821	40 042	62 511	73,29	16,38	4,85	5,49
lubelskie	235 595	47 729	185 643	53,24	28,25	9,73	8,78
podkarpackie	224 038	85 296	137 827	81,60	13,87	2,33	2,20
podlaskie	93 036	8 655	83 540	28,62	25,99	18,86	26,54
świętokrzyskie	117 341	19 641	95 168	64,39	25,50	6,10	4,00
lubuskie	30 880	9 257	21 348	49,88	19,11	10,17	20,84
wielkopolskie	143 221	21 498	122 081	38,06	24,68	15,82	21,44
zachodnio-pomorskie	37 863	8 376	29 498	39,05	18,42	12,48	30,05
dolnośląskie	82 588	23 543	59 915	50,82	22,06	10,14	16,98
opolskie	36 499	8 814	27 771	45,36	20,99	10,93	22,73
kujawsko--pomorskie	77 719	10 834	66 761	31,58	24,55	16,02	27,85
pomorskie	46 107	6 760	40 152	35,14	23,00	15,57	26,29
warmińsko--mazurskie	53 417	9 144	42 854	29,62	17,36	15,78	37,25

Source: Author's calculations based on the Bank of Local Data (Bank Danych Lokalnych)

The share of the smallest farms in area, i.e. from 1 to 5 ha AL, was the highest in Małopolskie (83.25%), Podkarpackie (81.60%), Silesia (73.29%) and Świętokrzyskie (64.39%) voivodships. Farms of this size class may be especially good candidates for starting social farming activity. They typically have low levels of production, a high level of self-supply (estimates are that 40% of farms in Poland between 1 and 5 ha AL in size produce only for their own needs) (Zegar, 2007) and a correspondingly low profitability. These farms typically have the appropriate infrastructure to start raising crops and animals or already do so, even at a small level of production (Kiełbasa, 2016). It is of course obvious that not everyone who works on village farms wants to dedicate their resources to socially-oriented farming, but for some it may be a good alternative way to maintain the farm. Small properties also have significant labour resources at their disposal, which are not typically used efficiently, and effort dedicated to farm work, combined with the low level of mechanization, is not reflected in financial results.

Material and research methods

The purpose of the analysis was to present and access sources of income among small farms in Poland. To achieve mentioned goal, the publication uses, among others, an analysis of domestic and foreign literature sources and quantitative data analysis, the results of which are presented in tabular form. Quantitative data comes from last Agricultural Census in 2010.

Results and discussion

With relation to small farms in Poland table 3 presents information regarding the number of persons per 100 ha AL on individual farms in Poland in 2010, by area group.

In each of the individual groups, as the area class increases, the number of persons per 100 ha AL decreases (both in terms of actual persons as well as of AWU[3]). The voivodship with the highest share of farms from 1 to 5 ha AL was characterized by a very high number of people working per 100 ha AL. A significant number of people per 100 ha AL confirms the substantial engagement of labour in the smallest farms in terms of area and the resulting opportunity to take advantage of this for diversified agricultural activity. In Poland, farm profits from agricultural activities are at a rather low level. Only 22.6% of farm households declare that they survive solely from agricultural production. For 40.2% of farms, income from agriculture constitutes 9% of overall income. The areas in which farm households are sustained primarily by non-farming work are in the southern voivodships of Poland: Małopolskie, Silesia, and Podkarpackie. In these places, over half of all farm households earn 90% of their income from non-farming sources.

Farm households which engage in agricultural activity earned their income from various sources. On the one hand, this testifies to their considerable versatility and the inclination of their owners to take up additional activities and their openness to diversify their sources of income, but on the other the situation results to a large degree from the low profitability of agricultural production, which does not allow the farmer to meet the basic needs of his family. In voivodships in which the percentage of farms earning from 90 to 100% of their total income from agricultural activity was the lowest, one can simultaneously observe the highest (in all cases exceeding 50%) percentage of farm households in which income from agricultural activity was no more than 9% of total income (Tab. 4).

[3] AWU – Annual Work Unit.

Table 3. Number of working individuals (actual persons as well as in terms of AWU) per 100 ha AL on individually operated farms engaged in agricultural activity

Specification	Farm area group							
	1–5 ha		5–10 ha		10–15 ha		15 ha and more than 15 ha	
	Working on 100 ha AL	Working in AWU on 100 ha UR	Working on 100 ha AL	Working in AWU on 100 ha UR	Working on 100 ha AL	Working in AWU on 100 ha UR	Working on 100 ha AL	Working in AWU on 100 ha UR
Polska	72,18	27,75	31,06	16,45	19,58	11,84	7,18	4,74
łódzkie	63,75	24,51	31,51	16,97	20,85	12,85	10,42	6,92
mazowieckie	59,36	23,22	29,04	15,78	18,96	11,80	9,05	6,07
małopolskie	86,14	35,83	38,39	21,29	24,03	14,60	6,25	3,91
śląskie	80,87	27,18	35,01	17,06	22,13	12,76	6,79	4,24
lubelskie	67,73	26,45	32,85	17,16	21,14	12,27	9,24	5,75
podkarpackie	90,31	32,68	38,78	18,83	22,94	12,48	5,90	3,42
podlaskie	48,99	16,25	24,38	12,36	17,27	10,62	9,06	6,13
świętokrzyskie	73,25	31,60	35,91	20,28	22,88	14,10	10,18	6,52
lubuskie	71,46	24,07	28,39	12,67	18,69	9,57	4,33	2,61
wielkopolskie	67,93	25,80	30,07	16,32	20,28	12,62	7,87	5,31
zachodniopomorskie	58,59	19,64	25,92	12,05	17,38	9,45	3,94	2,45
dolnośląskie	73,13	26,08	30,09	14,41	19,55	10,65	5,14	3,15
opolskie	78,05	26,69	32,33	16,03	20,56	11,83	6,76	4,46
kujawsko-pomorskie	60,19	23,90	27,35	15,84	18,36	11,82	6,91	4,81
pomorskie	58,53	21,85	26,61	13,84	17,88	10,47	5,99	3,86
warmińsko-mazurskie	56,58	20,08	23,27	11,87	16,33	10,09	5,25	3,65

Source: Author's calculations based on the Bank of Local Data (Bank Danych Lokalnych)

Table 4. Share of farms with various proportions of income from agricultural activity in their total income (%)

Specification	Share of farms with income from agricultural income						
	Total number of farms	Up to 9% of total income	10–29% of total income	30–49% of total income	50–66% of total income	67–89% of total income	90–100% of total income
Polska	1 886 888	40,18	20,60	7,22	5,85	3,53	22,62
łódzkie	143 359	29,16	23,62	9,57	7,20	4,51	25,95
mazowieckie	247 661	29,29	21,31	8,30	7,04	3,96	30,10
małopolskie	221 211	57,00	21,17	5,43	4,18	1,99	10,22
śląskie	102 553	69,17	14,52	3,79	2,79	1,26	8,47
lubelskie	233 372	32,39	23,67	9,87	7,35	4,44	22,28
podkarpackie	223 123	64,34	20,47	4,66	2,89	1,30	6,34
podlaskie	92 195	24,27	16,44	7,49	7,16	5,94	38,70
świętokrzyskie	114 809	37,49	23,29	8,87	6,67	3,79	19,89
lubuskie	30 605	49,80	20,31	5,80	4,63	2,63	16,83
wielkopolskie	143 579	25,08	19,67	8,24	7,36	5,42	34,23
zachodnio-pomorskie	37 874	38,49	20,75	6,23	6,82	3,63	24,08
dolnośląskie	83 458	45,70	21,01	6,70	5,33	2,68	18,58
opolskie	36 585	37,71	20,55	6,56	5,40	3,29	26,48
kujawsko--pomorskie	77 595	20,46	15,56	6,63	6,86	5,03	45,45
pomorskie	46 912	29,56	18,71	7,40	6,93	4,66	32,74
warmińsko-mazurskie	51 998	28,21	17,78	5,69	6,01	4,01	38,30

Source: Author/s calculations based on the Bank of Local Data (Bank Danych Lokalnych)

This second group would appear particularly interesting from the perspective of social farming – in these, resources needed for agricultural activity are used in a manner that goes not generate adequate income. Social farming may be an interesting solution for them that would allow them to make better use of the potential they have, while at the same time maintaining their current methods of agricultural production.

As can be seen from the compilation in the table (Tab. 5), for nearly half of farm households in Poland (42.8%) the main source of income is either retirement or pension benefits.

Table 5. Share of farm households with a various proportions of income from retirement and pension benefits, as part of total income (%)

Specification	Share of farm households with income from retirement or pension benefits						
	Total	Up to 9% of total income	10–29% of total income	30–49% of total income	50–66% of total income	67–89% of total income	90–100% of total income
Polska	624 491	3,30	15,52	15,12	11,45	11,84	42,76
łódzkie	40 687	3,98	21,09	16,71	11,84	12,92	33,46
mazowieckie	57 120	4,33	17,25	15,00	11,79	13,17	38,45
małopolskie	94 233	1,48	13,44	16,25	12,34	11,15	45,34
śląskie	42 844	1,07	8,19	12,57	10,77	8,61	58,78
lubelskie	80 072	2,52	15,45	16,19	12,52	14,22	39,09
podkarpackie	108 832	1,09	10,60	16,47	11,51	11,04	49,29
podlaskie	23 579	9,39	25,95	14,28	10,81	10,01	29,55
świętokrzyskie	40 908	2,30	15,64	15,10	11,26	14,24	41,47
lubuskie	10 538	2,55	11,43	11,43	7,81	12,47	54,32
wielkopolskie	40 494	8,76	25,66	15,31	11,09	10,87	28,31
zachodnio-pomorskie	10 340	4,08	15,46	11,48	10,25	11,49	47,23
dolnośląskie	26 225	2,80	12,95	11,31	9,55	11,58	51,80
opolskie	10 232	4,61	15,57	12,57	10,22	11,28	45,75
kujawsko--pomorskie	15 619	8,36	22,34	13,48	11,40	11,27	33,15
pomorskie	11 216	6,29	20,14	14,81	11,17	11,02	36,56
warmińsko--mazurskie	11 552	7,13	17,04	11,45	9,29	11,11	43,99

Source: Author's calculations based on the Bank of Local Data (Bank Danych Lokalnych)

This would appear to be the result of the influence of several factors. First, it may be the consequence of the low profitability of the primary activity of the farm, i.e. agriculture. Second, there is the phenomenon known as concealed unemployment, in which a household receives funds from non-farming sources (e.g. subsidies, pension or retirement benefits). Individuals working there or who are supported by such a household, from an economic point of view are dispensable, as they do not generate any income. Third, it seems there is a lack of young farmers who could take over the farms from their parents. And finally, a likely cause of the substantial share of retirement and pension benefits in farm household income is agrarian fragmentation, which causes that earning a living solely from agricultural production is impossible or possible only at a low level. Coming in above the national average rate of farm households with 90–100% of total income coming from retirement or pension benefits are Silesia, Lubuskie and Lower Silesia voivodships, with a percentage over 50% (the highest being in Silesia – 58.8%), as well as Małopolskie, Podkarpackie, Western Pomerania and Opolskie voivodships, in which the percentage is on average is 46.9%.

In Poland, nearly $^{1}/_{3}$ of farm households (31.4%) declare that they receive from 90–100% of their income from non-farming economic activity, and not from agriculture. In this category, the highest rates were noted in Lower Silesia, Lubuskie, Małopolskie and Pomerania voivodships. This suggests, more so than in other regions, the entrepreneurship of farmers. If they must or wish to seek new sources of income, they start their own businesses. This is supported by the vicinity of large cities and urban agglomerations, and so a market of consumers for goods and services (Tab. 6).

Table 6. Share of farm households with various proportions of income from non-farming economic activity, as part of total income (%)

Specification	Share of farm households with income from non-farming economic activity						
	Total	Up to 9% of total income	10–29% of total income	30–49% of total income	50–66% of total income	67–89% of total income	90–100% of total income
Polska	372 487	32,00	6,70	6,37	11,30	12,22	31,42
łódzkie	26 229	25,46	7,69	8,55	14,11	15,17	29,02
mazowieckie	47 050	25,08	6,58	6,47	12,91	15,18	33,77
małopolskie	48 377	33,76	5,35	5,62	9,75	9,87	35,86
śląskie	24 851	43,78	5,07	5,44	7,94	7,50	30,26
lubelskie	37 738	33,68	7,30	7,48	12,51	13,67	25,37
podkarpackie	47 347	48,52	5,39	4,54	7,99	7,45	26,12
podlaskie	17 406	29,79	8,00	7,26	12,99	13,64	28,32
świętokrzyskie	21 696	28,00	7,40	6,65	11,59	13,79	32,57
lubuskie	7 187	29,94	6,76	5,66	9,48	11,02	37,14
wielkopolskie	25 849	21,12	8,26	7,80	14,33	15,62	32,88
zachodnio-pomorskie	8 962	29,01	7,45	6,66	11,91	11,89	33,08
dolnośląskie	16 803	22,07	6,98	6,17	11,91	13,18	39,69
opolskie	8 769	33,17	5,83	5,36	10,40	11,94	33,30
kujawsko-pomorskie	14 712	34,05	7,40	6,12	11,13	13,15	28,14
pomorskie	9 325	22,47	8,25	6,41	12,82	14,35	35,71
warmińsko-mazurskie	10 187	26,21	8,51	6,46	11,31	12,57	34,95

Source: Author's calculations based on the Bank of Local Data (Bank Danych Lokalnych)

The average value in Poland as a whole for farm households that earn the majority of their income from wage labour is at least 42.4%. Analogously, the percentage for income from non-farming economic activity is 31.4%. This suggests, in the case of diversification of farmers' sources of income, that they first seek wage labour, and only secondly start their own non-farm business. Higher than average here are Silesia, Lubuskie, Podkarpackie, Lower Silesia and Małopolskie voivodships. Farmers finding additional sources of income is conditioned by several factors, including agrarian fragmentation as well as the availability of non-farm jobs. One must thus conclude that these households will continue in this direction regarding their proportion of income from farming and non-farming sources, as well as the number of sources of earning income (Tab. 7).

Table 7. Share of farm households with various proportions of income from wage labour, as part of total income (%)

Specification	Share of farm households with income from wage labour						
	Total	Up to 9% of total income	10–29% of total income	30–49% of total income	50–66% of total income	67–89% of total income	90–100% of total income
Polska	899 598	15,19	4,51	7,67	14,07	16,15	42,41
łódzkie	70 167	13,63	5,02	8,48	15,49	19,46	37,93
mazowieckie	113 482	15,56	4,33	6,83	14,00	18,78	40,50
małopolskie	121 233	13,69	3,71	7,46	14,62	14,08	46,44
śląskie	56 292	14,60	3,10	6,24	11,94	10,29	53,83
lubelskie	111 534	13,42	5,18	9,08	15,35	18,80	38,17
podkarpackie	123 402	13,59	3,44	8,10	14,69	12,62	47,56
podlaskie	34 206	15,19	6,58	8,43	13,86	16,73	39,21
świętokrzyskie	51 939	16,24	4,19	7,53	14,24	17,45	40,36
lubuskie	14 073	16,53	3,97	5,63	11,06	14,70	48,11
wielkopolskie	62 301	19,07	6,46	8,47	14,70	17,92	33,38
zachodnio-pomorskie	16 727	14,07	5,43	6,57	12,29	16,15	45,48
dolnośląskie	41 348	15,72	4,01	6,62	11,22	15,96	46,46
opolskie	16 597	17,38	3,86	6,37	12,59	17,10	42,70
kujawsko-pomorskie	27 560	22,19	5,74	7,91	13,68	17,30	33,18
pomorskie	19 696	19,10	5,06	7,46	12,56	16,38	39,44
warmińsko-mazurskie	19 040	18,20	5,67	6,38	11,63	14,64	43,48

Source: Author's calculations based on the Bank of Local Data (Bank Danych Lokalnych)

The data presented in Table 8 show the level of farmers' unearned income, excluding retirement and pension benefits.

Table 8. Share of farm households with various proportions of unearned income other than retirement and pension benefits, as part of total income (%)

Specification	Share of farm households with unearned income other than retirement and pension benefits						
	Total	Up to 9% of total income	10–29% of total income	30–49% of total income	50–66% of total income	67–89% of total income	90–100% of total income
Polska	129 832	12,87	24,03	11,16	9,69	9,54	32,71
łódzkie	8 422	13,39	29,78	11,67	9,25	10,59	25,34
mazowieckie	13 722	13,50	21,83	11,41	10,89	12,87	29,51
małopolskie	16 222	12,46	28,57	12,09	8,85	7,24	30,80
śląskie	6 513	6,20	14,34	9,23	10,06	7,51	52,68
lubelskie	17 603	14,60	29,05	12,05	10,68	10,19	23,43
podkarpackie	22 407	11,28	23,72	11,81	8,36	6,89	37,93
podlaskie	6 302	27,59	28,21	10,28	9,95	8,12	15,84
świętokrzyskie	9 754	8,40	21,26	11,70	10,21	11,88	36,55
lubuskie	2 315	8,73	16,59	7,56	7,60	10,71	48,81
wielkopolskie	6 862	19,00	25,14	10,75	9,97	10,64	24,51
zachodnio-pomorskie	2 720	7,02	16,10	13,01	12,87	10,37	40,66
dolnośląskie	4 813	6,03	17,10	9,27	9,58	11,91	46,15
opolskie	1 675	5,79	17,07	7,04	9,13	11,58	49,37
kujawsko--pomorskie	3 839	15,47	21,67	11,25	11,49	10,34	29,77
pomorskie	3 631	18,62	23,27	7,71	8,84	7,30	34,26
warmińsko--mazurskie	3 032	9,80	17,02	9,17	8,48	12,24	43,30

Source: Author's calculations based on the Bank of Local Data (Bank Danych Lokalnych)

There are many opportunities for farmers to make money aside from taking up wage labour or running their own business. Above all, these may come in various forms of social, care, or sick benefits. In addition, farmers may obtain income from various direct subsidies for farming as well as from framework programmes. Another way farmers can supplement their budget is by leasing out land, or by letting out buildings, equipment or other elements of infrastructure. That nearly $^1/_3$ of farm households in Poland draw the majority of their income from such sources testifies to the low profitability of agricultural production on such farms. It is in part supported by additional sources of income. This is a peculiarity above all of small farms that cannot reach a satisfactory level of income by large-scale specialized production. There are many indictors that suggest that this income profile of farm households will continue into the near future. The greatest indicators are noted in Silesia, Opolskie and Lubuskie voivodships. In these places, the likely source of funds supporting farming activity is seasonal work abroad, mainly in Germany, that is not subject to reporting and taxation.

Conclusions

In the mid-90s of the twentieth century agriculture involved about 20% of all working in Poland (3,5 millions of Poles). Situation changed at the beginning of twenty first century, as this number decrease to 2,5 millions people and to in 2018 – there were 1,5 millions of Poles working in agriculture. Decreasing number of people working in agriculture was connected with fall in amount of agriculture production, but also with the growing number of work places outside agriculture. Decreasing number of small farms, mechanization of work in agriculture, lack of successors are the most typical variables which influence changes in agriculture in Poland. Decreasing number of small farms in the last decade is connected with remaining only those entities, which produce and sell food. Majority of those active farms however still need additional source of income as farm income is not sufficient for them and their families. Several papers present partial information about source of income among small farms. Strzelecka (2018) based on data from FADN system presented comparison of the value, structure and dynamics of average total income of households under examination connected with small farms participating in this system from 2010 to 2015. Between 2010 and 2012 family farm income was about 50% of total income of households, while in years 2013–2015 was about 30% or lower. Putting it together with increasing average farm area in Poland, it can be noticed, that even bigger area of farm is not sufficient to ensure satisfying income for farmer and his family.

Last agriculture census proved that in 2010 farm area was connected with the level of engagement in agriculture production. The nearest General Agricultural Census is going to be conducted from September 1st to November 30th 2020. It is very important what scope of issues will be included in census questionnaires. A lot has changed in Polish economy and especially in agriculture realities and food production. Although elaboration of the Census 2020 will take about two years the results should present much detailed and meaningful changes in Polish agriculture than results from much smaller samples conducted between 2010 and 2020.

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