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HORIZONTAL INTEGRATION OF FARMERS ON THE EXAMPLE OF AGRICULTURAL PRODUCER GROUPS IN NORTH-EAST POLAND

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Key words: agricultural producer groups, horizontal integration.

Abstract

Increasing horizontal integration in agriculture, by creating groups of agricultural producers, may accelerate the modernization of Polish agriculture and increase its competitiveness.

The aim of the research was to find out about the state and conditions affecting the functioning of agricultural producer groups in North-East Poland in the years 2000-2021.

As part of the research, data on the characteristics of the groups were analyzed, i.e. their specializations, scope of activities, personal composition, and legal forms. Moreover, the amount of financial aid obtained from RDP was defined.

The article uses information contained in legal acts, literature on the subject, as well as secondary data from the ARMA. Based on the research, a short duration of the created groups has been noticed. Out of 170 entities created, 24 of them were active at the time of the study, with a total of 3,142 members. Most of them collaborated in dairy groups in the Podlaskie Voivodeship (1940).

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INTEGRACJA POZIOMA ROLNIKÓW NA PRZYKŁADZIE GRUP PRODUCENTÓW ROLNYCH POLSKI PÓŁNOCNO-WSCHODNIEJ

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Kody JEL: R11, Q10.

Słowa kluczowe: grupy producentów rolnych, integracja pozioma.

Abstrakt

Wzrost integracji poziomej w rolnictwie przez tworzenie grup producentów rolnych może przyspieszyć modernizację polskiego rolnictwa i podniesienie jego konkurencyjności. Celem prowadzonych badań było poznanie stanu i uwarunkowań mających wpływ na funkcjonowanie grup producentów rolnych w Polsce Północno-Wschodniej w latach 2000-2021. W ramach prowadzonych badań przeanalizowano dane dotyczące charakterystyki grup, tj. zdefiniowano ich specjalizacje, zakres działania, skład osobowy, formy prawne, a także wysokość uzyskanej pomocy finansowej z PROW. W artykule wykorzystano informacje zawarte w aktach prawnych, literaturze przedmiotu, a także dane wtórne ARiMR. Na podstawie badań zauważono krótkotrwałość tworzonych grup. Ze 170 utworzonych podmiotów w chwili przeprowadzenia badania funkcjonowało 24 z nich. Łącznie zrzeszonych było 3142 członków. Najwięcej z nich współpracowało w grupach mlecznych w województwie podlaskim (1940).

Introduction and methodology

The organization of economic companies is the weakest side of agriculture in Poland. By producing good quality crops, farmers most often sell them to intermediaries. Selling while not organizing into trade companies is due to the party's limited modesty and maladjustment to the recipient (Łazarek & Góralski, 2009, p. 179-186). Horizontal integration in the form of the aforementioned Intervention Groups (USAR) is aimed, inter alia, at the adaptation of products on the basis of technical changes and also changes in the modern market, the introduction of goods to suppliers, the adaptation of central supplies to wholesalers, organizing and facilitating the delivery of new products and improving the technical condition of the environment; including the rural population (Fal & Chlebicka, 2021, p. 1-12). The USAR Team is part of the

management of the Common Policy areas, which is designed to shape development, including sustainable development, and create areas of observation in the area of the 2012 management system (De Master, 2012, p. 89109; Witkowska, 2010, p. 258-268). In this context, the development of a joint action among the agricultural community of the control group, the control group belonging to the group associated with the group of soil acidification (Witkowska-Dąbrowska, 2018, p. 83-92), or non-agricultural development on management (Brodziński et al., 2020, p. 103-112). These types of activities refer to an increasingly better cooperation of the movement. Like the management of Pawlewicz and Brodziński (2016, p. 31-37), grids of operating cooperatives (often referred to as USAR) accelerate services and support or even renewable energy based on the use of substrates from the center's sources.

The economic effect of activities in the association indicate the possibility of negotiating both when selling raw materials and purchasing means of production. Consequently, the negotiating power influences the formation of long-term contracts with recipients and suppliers, thanks to which access to preferential loans is additionally facilitated (Zawisza, 2010, p. 5-9).

The legal act defining the functioning of the USAR is the Act of 15 September 2000 on agricultural producer groups and their unions. Since 1 September 2017, supervision over the groups and their registration has been carried out by the Agency for Restructuring and Modernization of Agriculture (ARMA).

The USAR integration process takes place on what is called the first level. This means that mainly single and relatively small groups are formed. Despite the support of groups from the RDP fund since 2004, they usually have the minimum number of statutory members of 5 (Łazarek & Góralski, 2009, p. 179-186). To register a producer group in the National Court Register, members must choose a legal form for it. The USAR may act as a cooperative, limited liability company, or association. The initial decision determines the development of the group in the future. This is due to the legal consequences assigned to the above--mentioned types of cooperation. These are the Code of Commercial Companies for Limited Liability Companies, the Cooperative Law for Cooperatives, the Law on Associations or the Act on Social and Professional Organizations for Associations. The group's founding act takes into account the provisions of a given act. Limited liability companies and cooperatives dominate in Poland (Trajer, 2013). Each established group specializes in a specific agricultural production industry. Pursuant to the ordinance, they may conduct economic activity covering many directions of plant and animal production. The question is, how is the horizontal integration process going? Is it dependent on the subsequent stages of co-financing from the European Union and how is it shaped depending on the industry?

The aim of the study was to get to know the state and conditions affecting the functioning of agricultural producer groups in North-East Poland. The study made a detailed analysis of data on the characteristics of the groups, defined the directions of specialization, industries, scope of activity, personnel, legal forms, as well as the amount and scope of financial aid obtained from RDP. The main differences of groups operating in areas with two different conditions of agricultural production were determined. The information contained in legal acts, the literature on the subject, as well as secondary and primary data from the Agency for Restructuring and Modernization of Agriculture was used.

The current state of integration of the USAR team in North-East Poland

The territory of North-East Poland includes the Warmińsko-Mazurskie and Podlaskie voivodships. According to the commission decision EEC/2008/1242 (OJ L 335 13.12.2008, p. 3), EU countries are covered by the Community typology of agricultural holdings (WTGR). Based on this decision, the Polish FADN defines agriculture in the territories of the Warmińsko-Mazurskie and Podlaskie voivodeships as different from each other due to the average economic size of farms (Goraj et al., 2013, p. 91-103). The Warmińsko-Mazurskie voivodship is characterized by very large farms, an average level of production intensity, the highest density of dairy cows, and the region is second in terms of the average pig stock on a farm. The Podlaskie Voivodeship belongs to an area characterized by an average size of agricultural holdings, an average level of production intensity, and is second in terms of the average density of dairy cows on a farm. Additionally, attention should be paid to the development disproportions that occur in the functioning of farms in the surveyed region and in the whole of Poland in relation to the countries of Western Europe (Poczta, 2013, p. 7-13; Wilkin, 2016, p. 11-20). For these reasons, supporting the operation and development of USAR teams is intended to contribute to reducing these disproportions. The first producer group in the studied area was established in 2003. In the Podlaskie Voivodeship it was an association of 79 tobacco producers, and in the Warmia and Mazury Voivodeship an association of 23 fruit and vegetable producers and a limited

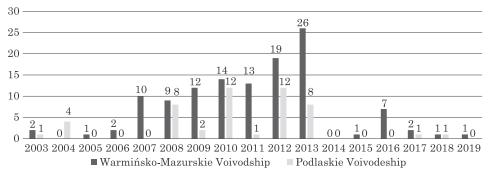


Fig. 1. Number of agricultural producer groups established in North-East Poland Source: own study based on ARMA data (as of 01.06.2021).

liability company that linked 5 farmers into a grain group. However, it was only since 2007 that a relatively greater increase in the formation of new groups was noticed. In total, in the years 2003-2020 in North-East Poland, 172 producer groups were created, of which 120 were in the Warmińsko-Mazurskie Voivodeship and 52 in the Podlaskie Voivodeship, which is presented in Figure 1.

The greatest increase in the number of created producer groups took place in the years 2007-2013. It was the period of implementation of the Rural Development Program for 2007-2013. After the transitional period (2014) of the RDP 2014-2020 program, there is a regression in the creation of new entities. Among the established entities, groups producing poultry (50) and cereals (48) dominated in the Warmińsko-Mazurskie voivodship. In the Podlaskie Voivodeship, the majority of poultry (31) and pig producers (8) constituted 90% of all groups of the region, which is presented in Figure 2.

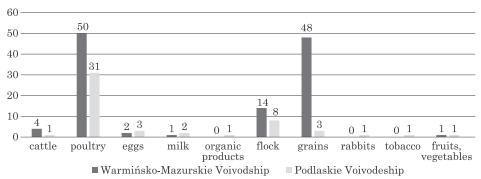


Fig. 2. Number of created producer groups of individual industries in North-East Poland Source: own study based on ARMA data (as of 01.06.2021).

An important issue in the functioning of producer groups is their durability. Unfortunately, the desire to integrate members mainly covers the period of financial support, after which there is no clear factor motivating for further cooperation (Kozłowska-Burdziak & Przygodzka, 2019, p. 161). This also applies to the groups of the studied area (Fig. 3).

The region has the largest number of poultry groups. A total of six of the eighty-one previously created remain. Most industries recorded a decrease of at least 50% in the number of groups (Tab. 1). Only producers of organic products, tobacco and eggs, while remaining in the market, opposed this trend.

Of the four possible forms of activity, farmers in North-East Poland most often chose limited liability companies (115) and cooperatives (75). In addition, two associations were established. No group was registered to function as an association (Tab. 2). Each of these legal forms as the basis for USAR activity has advantages and disadvantages. The association is not required to establish initial capital. However, it is a non-profit-organization and any property is owned by the association and not its members. For a group intending to invest in fixed assets,

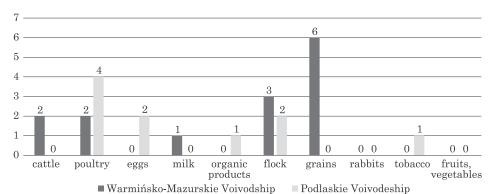


Fig. 3. The number of operating USAR teams in North-East Poland Source: own study based on ARMA data (as of 01.06.2021).

Table 1 Participating USAR removed from the register

Industry	Number of USAR removed from the register in the years 2003-2021		Percentage share USAR removed from the register compared to other industries	
	Warmińsko- Mazurskie voivodship	Podlaskie voivodeship	Warmińsko- Mazurskie voivodship [%]	Podlaskie voivodeship [%]
Cattle	2	1	50	100
Poultry	48	27	96	87
Eggs	2	1	100	33
Milk	0	2	0	100
Organic products	-	0	_	0
Flock	11	6	79	75
Grains	42	3	88	100
Rabbits	-	1	-	100
Tobacco	-	0	-	0
Fruits, vegetables	1	1	100	100

Source: own study based on ARMA data (as of 01.06.2021).

 ${\it Table \ 2}$ Legal forms of producer groups in north-eastern Poland

Form of activity	Warmia-Masuria Province	Podlasie Province	Total
Association	1	1	2
Company	74	41	115
Coopoeration	45	10	75

Source: own study based on ARMA data (as of 01.06.2021).

an easier solution is to operate as a limited liability company. Shareholders who have assets may contribute them to the company in the form of a contribution in kind, and the participation of members in the group depends on the amount of their contribution. Functioning in the form of a cooperative ensures equal participation of each member. This means that one member has one vote.

The size of the group, measured by the number of its members, can be used to assess the progress of the integration process in individual production sectors. Pursuant to the act, producer groups are required to have a minimum of 5 members. Most of the groups created were characterized by the minimum number of members or a slightly higher value (Fig. 4). Only a few groups with a larger number of members changed the average size assigned to a given type of production. However, one should distinguish between milk groups. There were 1918 members and 22 members in two groups in the Podlaskie Voivodeship. Additionally, there was one tobacco group uniting 79 farmers.

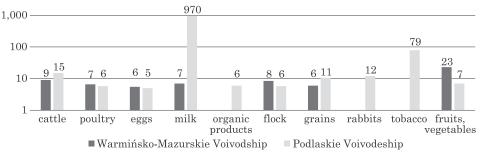


Fig. 4. Average number of members in one producer group in North-East Poland Source: own study based on ARMA data (as of 01.06.2021).

In the Warmian-Masurian Voivodeship, the group of pig farmers had the largest number of members (47). However, the dominant nature of the small size of groups in this industry significantly lowered the average number of members recorded. The highest value assigned to the group of fruit and vegetable growers resulted from its singularity. Additionally, there was a visible increase in the average number of groups that remained in the market (Fig. 4) in relation to all created groups (Fig. 3). In the Podlaskie Voivodeship, this increase included groups producing poultry, eggs and pigs, i.e. the majority of entities that have survived in the form of a group. The remaining sectors, except for tobacco and organic production, where the structure did not change, closed their activities. In the Warmian-Masurian Voivodeship, the average number of members increased in the cattle, poultry and pig sectors. As in the Podlaskie Voivodeship, the remaining groups, except for the dairy and cereal groups, have ceased their activities. In the functioning of crop groups, an exclusive decrease in the average number of members can be noticed compared to all groups registered in this

industry – on average by one member (Fig. 5). The persistence of relatively more numerous groups may result, as noted by Czapiewska (2013, p. 165-178) and Chlebicka and Pietrzak (2018, p. 1-24), from easier organization of large entities and adaptation of production to the recipient's requirements in terms of quality, quantity and assortment with the simultaneous application of the principles of environmental protection at all stages of production, storage and distribution of agricultural products.

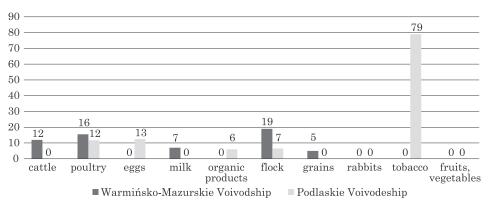


Fig. 5. The average number of USAR operating in North-Eastern Poland Source: own study based on ARMA data (as of 01.06.2021).

The issue of resigning from a large cooperative USAR that still operates in the market requires additional and in-depth examination. The research carried out by Majewska and Klibisz (2012, p. 425-435) may be due to additional administrative controls and reporting obligations for producer groups.

The level of financial support under the RDP for agricultural producer groups in North-Eastern Poland

Financial support for agricultural producer groups under RDP is provided by the Agency for Restructuring and Modernization of Agriculture. Until June 2021, ARMA serviced 3 more programs: RDP 2004-2006, RDP 2007-2013 and RDP 2014-2020. During this period, support was granted to 142 groups, 92 of which operated in the Warmińsko-Mazurskie Voivodship, and 50 in the Podlaskie Voivodship. In the Warmińsko-Mazurskie Voivodship, the ARMA made payments in the amount of PLN 79,696,395.60, while in the Podlaskie Voivodship this value was PLN 41,401,754.18. In both voivodeships, the greatest support was allocated to poultry groups. Respectively, PLN 48,648,363.92 in Warmińsko-Mazurskie Voivodship and PLN 32,034,538.16 in Podlaskie Voivodship (Fig. 6).

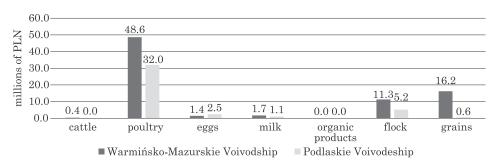


Fig. 6. The amount of support from RDP funds granted to producer groups in North-Eastern Poland

Source: own study based on ARMA data (as of 01.06.2021).

The attractiveness of external support for producer groups is easier to compare in the case of individual entities. Figure 7 shows the average value of total support per one entity in a given type of production. Here, the greatest support was given to dairy groups in the Warmian-Masurian Voivodeship and to egg groups in the Podlaskie Voivodeship.

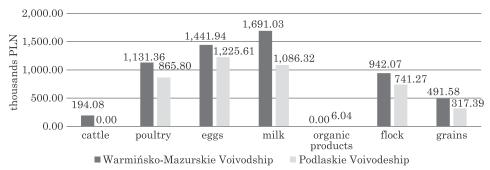


Fig. 7. The average value of the total support per one entity in a given type of production in North-East Poland

Source: own study based on ARMA data (as of 01.06.2021).

There are large disproportions in the amount of support for individual industries. They result from the production value, of which the level of the granted annual subsidy depends. This justifies little support for groups involved in organic and cattle production. The scale of the size of these entities is limited due to relatively high production inputs.

Summary

Co-financing of agricultural producer groups under the first two RDP financial perspectives increased the level of integration of farmers in north--eastern Poland. Of the four possible legal forms of cooperation within the USAR, limited liability companies and cooperatives dominated. From 2007 to 2013, there was a clear upward trend in the number of created groups. Subsequently, this process was reduced. Most often, producers of poultry, cereals and pigs came together. However, it is in industries such as fruit and vegetables, pigs and cattle that the highest concentration of members per group was observed. The vast majority of registered agricultural producer groups had only a minimal number of members. The most disturbing trend in USAR operations is their closure after several years of activity. By June 2021, 146 entities out of 170 created in total were deleted. Financial support under the RDP was received by 142 groups three consecutive times. Total payments amounted to PLN 79,696,395.60 in the Warmińsko-Mazurskie Voivodship and PLN 41,401,754.18 in Podlaskie. Despite the increase in the level of horizontal integration in agriculture, the situation in this respect in comparison to Western European countries is highly unsatisfactory. The progressive competition of production in agriculture, both in Poland and in other EU countries, as well as financial aid from the EU and state institutions for the association of farmers, do not contribute to the deepening of horizontal integration among farmers.

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References

- Brodziński, Z., Bojkowska, E., & Janek, S. (2020). Development of Micro-Enterprises in Rural Areas in the Warmińsko-Mazurskie Voivodship. *Olsztyn Economic Journal*, 15(2), 103-112. https://doi.org/10.31648/oej.5834.
- Chlebicka, A., & Pietrzak, M. (2018). Size of Membership and Survival Patterns of Producers' Organizations in Agriculture-Social Aspects Based on Evidence from Poland. Sustainability, MDPI, Open Access Journal, 10(7), 1-24. https://doi.org/10.3390/su10072293.
- Czapiewska, G. (2013). Grupy producentów rolnych w rozwoju obszarów wiejskich Pomorza. Acta Universitatis Lodziensis, Folia Geographica Socio-Oeconomica, 13, Koncepcje i problemy badawcze w geografii wsi, 165-178. Retrieved from http://foliags-o.geo.uni.lodz.pl/folia13/czapiewska.pdf (31.06.2021).
- De Master, K. (2012). Designing Dreamsor Constructing Contradictions? European Union Multifunctional Policies and the Polish Organic Farm Sector. *Rural Sociology*, 77(1), 89-109. https://doi.org/10.1111/j.1549-0831.2012.00071.x.
- Falkowski, J., & Chlebicka, A. (2021). What product mix do they offer and what marketing channels do they use? Exploring agricultural producer organisations' heterogeneity. *Journal of Rural Studies*, 85, 1-12. https://doi.org/10.1016/j.jrurstud.2021.05.002.

- Goraj, L., Bocian, M., & Cholewa, I. (2013). Wspólnotowa Typologia Gospodarstw Rolnych po zmianie w 2010 roku. Zagadnienia Ekonomiki Rolnej, 1, 91-103. Retrieved from http://www. zer.waw.pl/WSPOLNOTOWA-TYPOLOGIA-GOSPODARSTW-ROLNYCH-PO-ZMIANIE-W-2010-ROKU,83481,0,2.html (31.06.2021).
- Kozłowska-Burdziak, M., & Przygodzka, R. (2019). Grupy producentów rolnych szanse i bariery rozwoju. Białystok: Wydawnictwo Uniwersytetu w Białymstoku.
- Łazarek, M., & Góralski, P. (2009). Integracja w rolnictwie: grupy producenckie. Ekonomiczne Problemy Usług, 43, 179-186. Retrieved from http://bazhum.muzhp.pl/media/files/Ekonomiczne_Problemy_Uslug-r2009-t-n43/Ekonomiczne_Problemy_Uslug-r2009-t-n43-s179-186/Ekonomiczne_Problemy_Uslug-r2009-t-n43-s179-186.pdf_(31.06.2021).
- Majewska, M., & Klibisz, K. (2012). Wybrane bariery rozwoju grup producentów rolnych w Polsce. Prace i Materiały Wydziału Zarządzania Uniwersytetu Gdańskiego, Zarządzanie i Finanse, 10(1), 425-435. Retrieved from http://bazekon.icm.edu.pl/bazekon/element/bwmeta1.element. ekon-element-000171235887 (31.06.2021).
- Pawlewicz, A., & Brodziński, Z. (2016). Rural cooperative emovement prospects of changes Economic. Science for Rural Development, 41, 31-37. Retrieved from http://llufb.llu.lv/conference/economic_science_rural/2016/Latvia_ESRD_41_2016-31-37.pdf_(31.06.2021).
- Poczta, W. (2013). Gospodarstwa rolne w Polsce na tle gospodarstw Unii Europejskiej wpływ WPR. Warszawa: Zakład Wydawnictw Statystycznych.
- Trajer, M., & Trajer, M.A. (2015). Grupy producentów rolnych jako forma przedsiębiorczości zespołowej rolników. *Turystyka i Rozwój Regionalny, 3*, 129-143. Retrieved from http://sj.wne.sggw.pl/article-TIRR_2015_n4_s129/ (31.06.2021).
- Wilkin, J. (2016). Polska wieś na tle kraju i Europy synteza raportu. In Przedsiębiorstwo Raport o stanie wsi. Warszawa: Wydawnictwo Naukowe Scholar.
- Witkowska-Dąbrowska, M. (2018). Spatial Variability and Economic and Environmental Consequences of Agricultural Acidification of Soils in The Province of Warmia and Mazury. *Ekonomia i Środowisko*, *3*(66), 83-92. Retrieved from http://yadda.icm.edu.pl/yadda/element/bwmeta1.element.baztech-610b4ff3-e059-4737-b97c-745f099a5b94?q=2118b064-3b42-4491-9b37-7f5053d08d77\$1&qt=IN_PAGE (31.06.2021).
- Witkowska-Dąbrowska, M., & Bączkowski, T. (2010). Indicators of Warmińsko-Mazurskie Voivodship Sustainable Development in the EconomicAspect. Olsztyn Economic Journal, 5(2), 258-268. Retrieved from https://yadda.icm.edu.pl/yadda/element/bwmeta1.element.desklight-0998d9b5-edda-438e-bbd8-fde0c7212194 bwmeta1.element.desklight-0998d9b5-edda-438e-bbd8-fde0c7212194 (31.06.2021).
- Zawisza, S. (2010). Perspektywy rozwoju grup producentów rolnych szanse i zagrożenia. Bydgoszcz: Wydawnictwa Uczelniane UTP.
- Ustawa z dnia 15 września 2000 r. o grupach producentów rolnych i ich związkach oraz o zmianie innych ustaw (Dz. U. z 2018 r., poz. 1026).
- Rozporządzenie Ministra Rolnictwa i Rozwoju Wsi z dnia 2 sierpnia 2016 r. w sprawie szczegółowych warunków i trybu przyznawania, wypłaty oraz zwrotu pomocy finansowej w ramach działania "Tworzenie grup producentów i organizacji producentów" objętego programem rozwoju obszarów wiejskich na lata 2014-2020. (Dz.U. z 2016 r., poz. 1284).