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## Changes in the Process of Cooperation in Contemporary Agriculture and Directions and Dynamics of Changes on the Example of Poland

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**Abstract:**

**Purpose:** The aim of the study is to draw attention to the basics of functioning and changes taking place in the process of cooperation of farmers associated in groups of agricultural producers in Poland.

**Design/Methodology/Approach:** The study uses the method of analyzing the literature on the subject, as well as the analysis of source data, including data from mass statistics, as well as data from the MARD and ARMA studies.

**Findings:** The obtained results of statistical data indicate that from year to year more and more groups of producers, both agricultural and fruit and vegetables, cease to exist. This is a disturbing symptom indicating that these units do not fulfill the role that has been entrusted to them, namely development activities that would bring tangible financial benefits not only to themselves and to the constitution, but also to individual producers associated in these structures. The observations conducted on this market also allow to show the weaknesses and deficiencies of the financial management system of these enterprises. The observed effect of such ineffective actions is the gradual loss of motivation to function and cooperate in the group, which results in the gradual withdrawal of many individual producers and undertaking their independent production and trade activities.

**Practical Implications:** The article contains information and guidelines for agricultural producers acting individually as well as cooperating in producer groups. The conducted analyzes of the obtained statistical material indicate a handicap of the functioning system of cooperation and indicate the need for appropriate reforms on the part of the state and representatives / authorities of producer groups.

**Originality/Value:** The study contains significant findings regarding the variables influencing the direction and future fate of the functioning of agricultural producer groups in Poland.

**Keywords:** Producer group, countryside, agriculture, cooperation.

**JEL Classification:** M31, L11.

**Paper type:** Research paper.

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## **1. Introduction**

Poland, despite a relatively short period of operation on the common European market, is an important partner in agrifood production. Despite the developmental difficulties that arose during the times of the "centrally planned" economy, a gradual progress has been made here since joining the EU, eliminating the former development disproportions in agriculture (Zawalińska, Tran, and Płoszaj, 2018). The key problem in the functioning of Polish agriculture is still its fragmentation (Postek, Leń, and Stręk, 2019). It should be mentioned that the structure of farms running business in many regions is still dominated by small farms. These farms undoubtedly play an important role in the social, economic or cultural dimension of Polish countryside and agriculture (Žmija, Fortes, Tia, Ayambila, Žmija, and Sutherland, 2020). However, their production structure does not allow them to achieve an appropriate level of operational efficiency and the ability to efficiently compete, especially on the international arena.

The issue of improving the national competitiveness of agriculture (Pawlak and Poczta, 2020) was reflected, among others in the agricultural development strategy of the Polish government, where an important place was assigned to activities related to the horizontal and vertical integration of farms. Therefore, the cooperation of farmers and the formation of agricultural organizations (including by creating, among others, groups of agricultural producers), and thus close cooperation between farmers on many levels, may significantly improve the competitive position of farms and, in the future, allow for successive reduction of production and production costs.

## **2. Research Objectives and Methodology**

The aim of the study is to draw attention to the basics of functioning and changes taking place in the process of cooperation of farmers associated in groups of agricultural producers in Poland. The concept of a producer group was introduced, as well as the legal and organizational foundations of the functioning of these structures.

Moreover, the quantitative and organizational changes taking place both in groups of agricultural producers and groups of fruits and vegetables producers in recent years in our country are presented. The state of integration of Polish agricultural producers in the voivodship system with the division into individual assortment groups of agricultural activity was also shown. A possible scenario of changes in the functioning of these structures in the coming years was also presented, and an attempt was made to determine the reasons for these changes. In addition, attempts were made to analyze the reasons underlying these changes (especially unfavorable ones), as well as the possible consequences of this state of affairs for the countryside and agriculture in Poland.

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The study uses the method of analyzing the literature on the subject, as well as the analysis of source data, including data from mass statistics, as well as data from the studies of the Ministry of Agriculture and Rural Development and the ARMA.

### **3. Agricultural Producer Groups as the Basis of Agricultural Cooperation**

In recent years, significant changes in the mentality of farmers regarding market interaction have been observed (Sullivan, 1996). This is happening through the generational changes taking place in Polish agriculture and the gradual transfer of farms to young people with a modern, pro-market approach to management. They begin to believe that in today's economic realities, only group forms of management make it possible to meet the requirements of the modern market and become its active participant. Decisions to undertake cooperation (Czapiewska, 2021) between farmers are nowadays the result of cold economic calculation, especially when it comes to further fate of functioning of many, and in particular the smallest, low-profit farms, since their future and the direction of further market existence will depend on the strategy of their owners (Wiggins *et al.*, 2010).

A significant and tangible attempt to encourage agricultural producers to develop cooperation in free market conditions was made as early as in 2000 by adopting the Act on agricultural producer groups and their unions. In each of the subsequent aid programs for agriculture, starting from 2004, from PHARE, SAPARD, through RDP 2004-2006 and RDP 2007-2013 (and also in the current perspective for 2014-2020), part of the support was addressed to agricultural producer groups (Lemanowicz, 2018). However, the effects of these actions, as it turns out, are still unsatisfactory, and the direction of these changes raises many concerns about their further fate (Lipatova *et al.*, 2021).

The formation of agricultural groups and organizations is based on the basic idea of working together on a free market. Thanks to effective production and information initiatives, farmers should obtain higher and qualitatively stable crops, they can create large, standardized batches of homogeneous products, and thus they can be an important partner both for the sales level and for the supply of means of production. Raising production and production-related standards through cooperation also affects the morale and organizational culture of individual producers operating within the group, both through the exchange of experiences, as well as care for the increasingly higher quality of the raw materials produced.

The literature explains the concept of a producer group in different ways. Most often it is understood as an association established on a voluntary and bottom-up basis (Khrishcheva, 2020), in order to conduct joint activities, most often selling produced goods. For the purpose of defining producer organizations, such terms as producer group, marketing group, producer organization, cooperative, producer team, team of individual farmers, etc., are often used interchangeably. Most often, however, the legal definition is taken into account provided for in the Act of 15<sup>th</sup> of September

2000 on agricultural producer groups and their associations, which strictly defines the principles and conditions for granting financial aid from public funds related to their organization and functioning.

Pursuant to this Act, a producer group is defined as "any legal entity established on the initiative of agricultural producers, aimed primarily at improving the economic efficiency of members' farms, mainly by adjusting production and sales to market requirements" (Act of 15<sup>th</sup> of September 2000 on agricultural producer groups and their associations, Journal of Laws No. 88 of 2000). The primary task of agricultural producer organizations is to provide farmers with specific services, which in turn encourage membership. These may be activities such as: defending the interests of farmers, technical and economic activities, and the development of local communities (Brodziński, 1998).

There are many factors that underlie the growing interest in the creation and functioning of groups and organizations associating agricultural producers, especially in recent years. One of them are the economic reasons related to the possibility of obtaining EU funds for this purpose from the Rural Development Program (RDP). The activities undertaken by producer groups thanks to the permanent cooperation of producers, make the groups an important trade partner for many companies dealing in both processing and trading in agricultural produce and means of production (Domagalska-Grędyś, 2010).

An important factor of integration activities in agriculture is the increase in the ability to compete both on the domestic and international market (Gupta and Bansal, 2021). Popularization of Polish production abroad through full participation in the economic life of representatives of producer groups, unions and agricultural organizations contributes to establishing cooperation with many countries (Marosz, 2013). This is especially important in the era of some markets closing down on domestic products (such as the embargo imposed on many Polish food products by the Russian side in 2014, which is still ongoing) (Mubarok, 2021).

Therefore, the constant expansion of the group of trade partners, consequently, improves the competitive strength and the condition of the entire agricultural production sector. Each farmer joining the group has different motives. Nevertheless, each individual makes this decision on the basis of an independent calculation, related to individual preferences and needs, and often predictions about the future of the farm run by each of the individual producers (Chlebicka and Falkowski, 2008).

However, an increasingly important element underlying the decision to join the group is the increasingly difficult economic situation on the market of agricultural products produced by farmers, growing problems with selling, especially in periods of overproduction (Poperechny, 2020), as well as the increasingly visible volatility

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of market prices both agricultural products and (and perhaps in particular) the prices of means of agricultural production.

Support granted to agricultural producer groups under the Rural Development Program (Kiryluk-Dryjska, Beba, and Poczta, 2020) for the years 2007-2013 is a continuation of the action initiated in the Rural Development Plan of 2004-2006 and is still continued under the RDP for 2014-2020. Agricultural producer groups may conduct their activities based on the legal form of a limited liability company, cooperative, organization or association. Under RDP 2007-2013, only agricultural producer groups registered in accordance with the Act on agricultural producer groups and their associations were supported and on amendments to other acts. This Act also did not allow the registration of groups that may be beneficiaries of financial instruments aimed at facilitating the establishment and administrative activities of groups under the first pillar of the CAP (e.g., concerning the fruit and vegetable sector).

In the next programming period in the Rural Development Program for 2014-2020, support for the processes of integration of farmers is implemented under the measure: "Creation of producer groups and producer organizations" (Rural Development Program for 2014-2020 approved on December 12, 2014, MP of 2015, item 541, as amended). Financial aid can be obtained by new groups of agricultural producers, which only include natural persons (Biczkowski, 2021). Producer groups established in the following products category were excluded from the possibility of obtaining financial aid, live poultry, meat or edible poultry offal, and fruits and vegetables (Regulation of the Minister of Agriculture and Rural Development of April 19, 2016, Journal of Laws 2016, p. 577/0. The expected amount of support for the creation of producer groups and organizations in the years 2014-2020 is more than 120% higher than in the previous programming period and accounts for 3% of the total RDP budget for 2014-2020.

The rules regarding the order of granting support to groups of agricultural producers in the years 2014-2020 reward specific entities. For example, additional points are awarded to producer groups organized in the form of cooperatives, associating producers of specific high-quality products (e.g., pigs, cattle or honey and bee products). The higher score is provided for the higher number of associated members (Regulation of the Minister of Agriculture and Rural Development of August 2, 2016 on the detailed conditions and procedure for granting, payment and reimbursement of financial aid under the measure "Creation of producer groups and producer organizations" covered by the Rural Development Program for 2014-2020, Journal of Laws 2016, p. 1284, § 3).

High scores are granted to groups of agricultural producers who included investments in the field of innovation (new production technologies) or investments counteracting climate change or favoring the protection of the natural environment in the business plan (Brzozowska and Bubel, 2020).

In addition to the aforementioned measure "Creation of producer groups and organizations in agriculture and forestry", aimed at supporting cooperation processes among producers, the 2014-2020 RDP also provides for activities under which members of producer groups can apply for funding for their activities as agricultural producers. Such activity is sub-measure 3.1. "Support for accession to quality schemes" under Measure 3: "Quality schemes for agricultural products and foodstuffs".

The specific objective of this measure is to increase the competitiveness of agricultural producers through their better integration with the agri-food chain through quality systems, adding value to agricultural products, promotion of agri-food products on the local market and short supply cycles (Herrero *et al.*, 2020), and by producer groups and organizations and interbranch organizations (<https://www.arimr.gov.pl/pomoc-unijna/prow-2014-2020/dzialanie-3-systemy-jakosci-produktow-rolnych-i-srodkow-spozywczych/poddzialanie-31-wsparcie-na-przystepowanie-do-systemow-jakosci.html>).

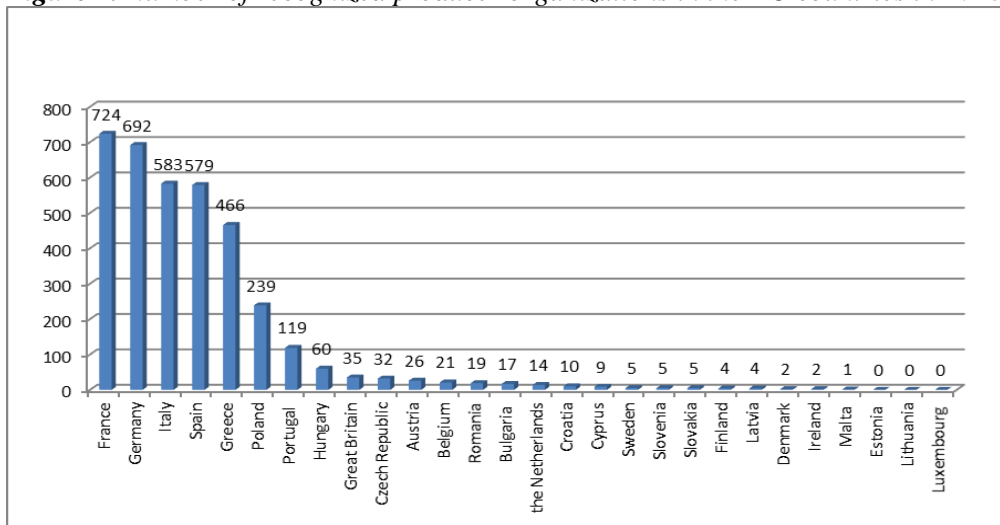
#### **4. Research Results and Discussion**

There are about 10.8 million farmers in the countries of the European Union who often own relatively small farms. Their bargaining power in relation to processors or traders is still weak. Despite the existence of many support instruments addressed to farmers in the assumptions of the Common Agricultural Policy, the interest of agricultural producers in associating, contrary to the initial expectations of the entire EU, is not great at all (Guth, Smędzik-Ambroży, Czyżewski, and Stępień, 2020).

In 2018, the number of recognized producer organizations in all Member States was 3,400. Against these statistics, Poland ranks 6<sup>th</sup> in this respect in terms of the number of existing producer organizations. Only nine EU countries have recognized associations of producer organizations: in France, 30 unions, in Italy 19, in Germany 9, in Spain 7, in Hungary 7, in Greece 4, in Belgium 3, and in Poland and the United Kingdom, 1 association of agricultural producers, respectively (Dias and Franco, 2018).

Most producer organizations in the EU operate in the fruits and vegetables sector - 52%, while organizations operating in the milk and milk products sector constitute a slightly smaller group - 39%. Another 9% are agricultural producer organizations in other production sectors (Kozłowska-Burdziak and Przygodzka, 2019).

Comparing the number of recognized organizations to the number of farms, it is determined that on average in the EU there are 254 recognized producer organizations per 1 million farms. The leader in this respect is Germany, where the number of recognized producer organizations per 1 million farms is over 14 times higher than in Poland.

**Figure 1.** Number of recognized producer organizations in the EU countries in 2018

**Source:** <https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/market-measures/agri-food-supply-chain/producer-and-interbranch-organisations>.

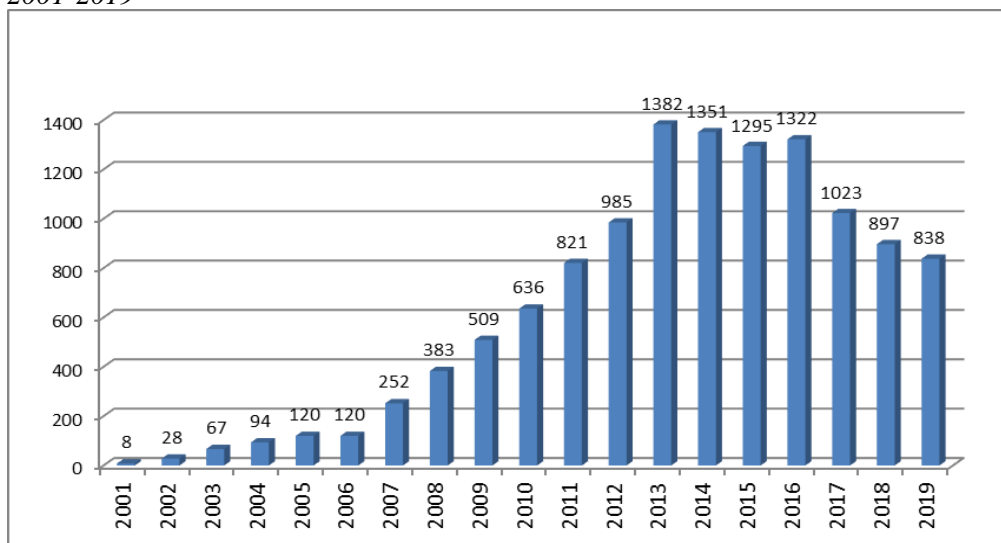
By the time of accession to the EU in 2004 (Lalee, 2019), over 60 groups of agricultural producers were established in Poland (Fałkowski, Chlebicka, and Łopaciuk-Gonczaryk, 2017). Among them the most numerous group were producers of fruits and vegetables (20 groups). The remaining group consisted of producers of cereal grains and oilseeds, which formed 14 groups, pig producers 9 groups, tobacco producers 8 groups, poultry producers 3 groups, hop cones producers 2 groups, milk producers 1 group and producers of eggs, beets and sheep and rabbits - 4 groups.

The process of creating producer groups was very slow until 2007. Their number in the first programming period of the Common Agricultural Policy for 2004-2006 increased only by 27% (Kałuża and Bułas, 2015). A clearer interest in creating groups took place in the next programming period, i.e., in the years 2007-2013. At the end of 2013, there were over 1,382 groups operating in Poland and, compared to 2007, their number increased more than fivefold. Agricultural producer groups were established in 23 industries, they included 35 product groups for which they could be established.

According to the data from 2013, the most numerous group were still those from the group of grains, oilseeds, pigs and poultry (ARMA Report, Common organization of the fruits and vegetables market 2020). On the other hand, a very low degree of organization was characteristic of producers of ornamental horticultural plants, herbs, rabbits, hop cones, sheep, goats, horses, fresh flowers, as well as fruits and vegetables (Krzyżanowska and Trajer, 2014). After 2013, the number of operating groups of agricultural producers, contrary to the expectations of further dynamic growth, has been gradually decreasing. At the end of 2018, it already included 897

entities. According to the data of the Ministry of Agriculture and Rural Development and ARMA, at the end of July 2019 their number decreased to 838 entities, i.e., to the state from 2011.

**Figure 2.** *Quantitative changes of the functioning agricultural producer groups in 2001-2019*



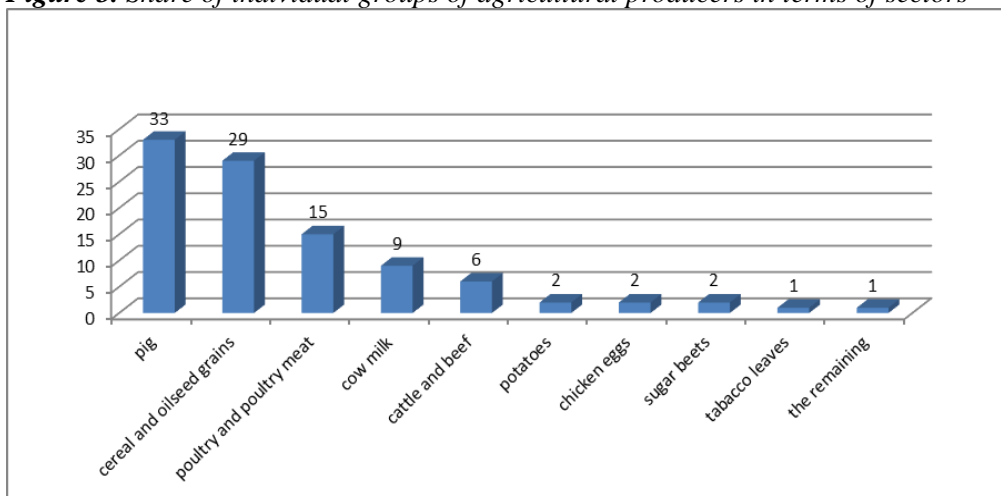
*Source:* Own study based on ARMA data.

At the end of June 2019, the largest number of producer groups operated in Wielkopolskie Voivodeship (266). Then in the following voivodeships: Dolnośląskie (84), Łódzkie (83), Opolskie (78) and Mazowieckie (76). The smallest group was in the Świętokrzyskie Voivodeship (4). In relative terms, the decrease in the number of farms in this voivodeship is higher than the national average, as it amounted to approximately 57%. In the industry structure of agricultural producers in the country, two directions of production still dominate: pigs (33 groups) and grains of cereals and oilseeds (29). The production of poultry and poultry meat (15 entities), milk producers (9) and cattle and beef meat (6) are also quite numerous. The remaining groups account for a small percentage of specializations (Kozłowska-Burdziak and Przygodzka, 2019).

An important form of integration of agricultural producers, mentioned above, are also groups of fruits and vegetables producers (Łakomiak and Zhichkin, 2020). Regulations concerning their functioning were introduced in Polish law by the Act of 19<sup>th</sup> of December 2003 on the organization of the fruits and vegetables market, the market of hops, the market of tobacco and dried fodder. The Regulation of the Minister of Agriculture and Rural Development of 19<sup>th</sup> of September 2013 contains the requirements for establishing such a group as well as the conditions and requirements that must be met in the process of recognizing such an entity (Journal of Laws of 2013, No. 188, item 1178, as amended).



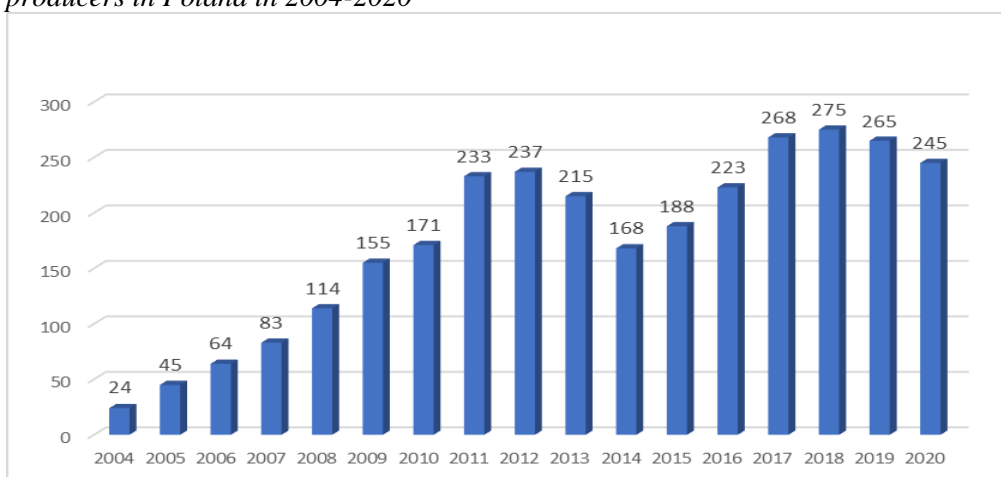
**Figure 3.** Share of individual groups of agricultural producers in terms of sectors



**Source:** Own study based on ARMA data.

As at the end of January 2020, there were 245 recognized groups of fruits and vegetables producers in Poland. In the same period of 2019, there were still 265 of them. The number of all registered entities in this group was 344.

**Figure 4.** Structure of quantitative changes in groups of fruit and vegetables producers in Poland in 2004-2020

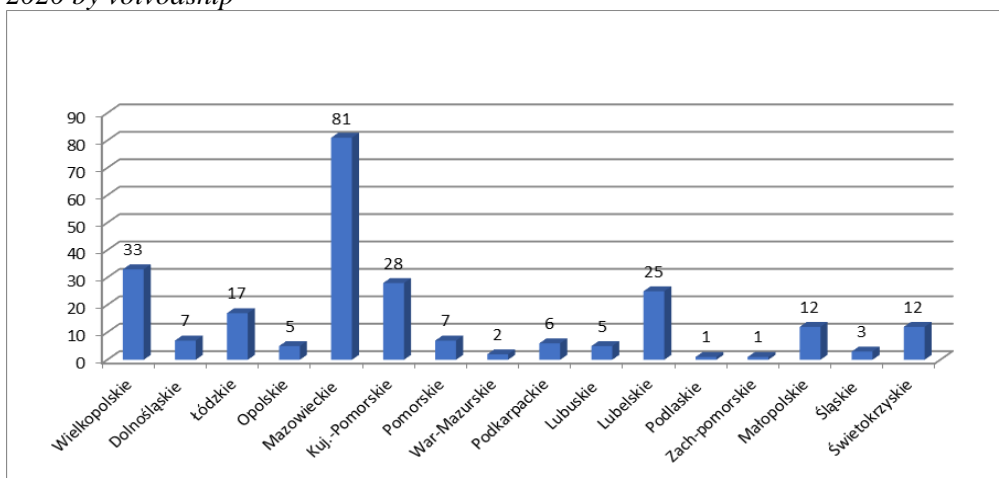


**Source:** Own study based on data from the ARMA report, Common organization of the fruit and vegetable market 2020.

It follows that over 25% of registered groups were dissolved. The largest number of fruits and vegetables producer groups operates in the Mazowieckie Voivodeship (81 entities) and accounts for over 32% of all such groups in the country (ARMA Report, Common organization of the fruits and vegetables market 2020).

Interestingly, in as many as eight voivodships, recognized groups of fruits and vegetables producers did not submit a single application for funding under the common organization of the fruits and vegetables market. The largest number of fruits and vegetables producer groups operates in the Mazowieckie voivodship (81 entities) and accounts for over 32% of all such groups in the country<sup>2</sup>.

**Figure 5.** Number of recognized fruit and vegetable producer groups in Poland in 2020 by voivodship



**Source:** Own study based on ARMA data.

Relatively high interest in co-financing from the operational fund of groups of fruits and vegetables producers was observed in the Mazowieckie voivodship (81), while the lowest was observed in the following voivodships: Podlaskie (1), Zachodniopomorskie (1), Warmińsko-Mazurskie (2) and Śląskie (3). In as many as eight voivodships, recognized groups of fruits and vegetables producers have not submitted a single application for funding under the common organization of the fruits and vegetables market.

During the implementation of financial aid, many irregularities appeared in relation to initially recognized groups of fruits and vegetables producers, which were indicated by the audits of auditors from the European Commission and the European Court of Auditors carried out in 2010-2013 (<https://www.agro fakt.pl/grupy-producentow-owocow-i-warzyw-pod-specjalnym-nadzorem/>).

They mainly indicated irregularities related to the Polish procedure of preliminary recognition of producer groups and irregularities in the valuation of the costs of purchasing machinery and investments by producer groups. The remedial actions taken included the control of the expenditure of funds, carried out by the ARMA,

<sup>2</sup>ARMA 2020 Report: Common organization of the fruits and vegetables market. Data from the Department of Social Actions and Producer Organizations and application: TOMATO, Oracle Business Intelligence.

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and the verification of the process of preliminary recognition and recognition of groups of fruits and vegetables producers, carried out by the AMA operating until September 2017. As a result of the ARMA audits, it was not possible to confirm the conditions of preliminary recognition in the case of 51 initially recognized groups of fruits and vegetables producers. In addition, 1107 applications for financial aid (40% of all submitted) for 193 pre-approved groups were verified and it was found that for a significant part of these groups the reasonableness of the costs and the correctness of the granting of aid could not be verified (<https://www.farmer.pl/prawo/przepisy-i-regulacje/urzednik-zawinil-grupy-producenckie-cierpienia,69588.html>).

Such situation undoubtedly affects the successively declining interest of producers in creating producer groups in recent years. It may continue to deepen the discouragement in the process of creating new forms of joint action, as evidenced by the above statements, which indicate that the number of these groups is gradually decreasing from year to year. This undoubtedly proves a renewed and, unfortunately, still deepening impasse in the process of integration of Polish farms, despite the increasing amount of EU funds earmarked for the creation of integration structures in agriculture. This situation may prove either a gradual saturation of the domestic market with these structures or poor management of these structures, especially in the organizational and financial aspect.

## 5. Conclusions

Group cooperation brings many undisputed benefits with it, both for the entire agriculture and individual farms. Thanks to the subsidies obtained under the Rural Development Program, groups of producers have at their disposal specialized, meeting the highest world standards, equipment for harvesting, warehousing, including storage and preparation for sale of products. They have their own headquarters, storage bases, logistics centers, they are equipped with the most modern devices for washing, cleaning, sorting, packing and confectioning as well as means of transport, enabling the delivery of products to recipients while maintaining their high quality. Acquisition by groups of producers of the above-mentioned technical infrastructure from own resources, without the possibility of using financial support, would be impossible, especially when it comes to small family farms.

On the domestic market, measures are constantly taken to increase the level of competitiveness of agriculture. Particularly important is the fact that it is necessary to completely reorganize Polish trade related to the inability to cooperate, especially with Russia (once the most important recipient of Polish agricultural products), due to the never-ending long-term embargo on Polish products. So far, there is no indication that this will change in the near future. Therefore, an important element is to create an efficiently functioning system of cooperation between producers in this market in the form of producer groups. One should also pay attention to the fact of

constantly changing market realities and the need to search for and enter new, previously unsupported markets, with often specific requirements.

Therefore, in the strategy for the development of Polish agriculture, an important place was assigned to activities related to horizontal integration, such as groups and organizations representing producers, and vertical integration, resulting from the involvement of individual participants in the agri-food sector and the willingness to achieve common goals.

Under the CAP, producer groups have received and are still able to receive support for the creation and development of this type of structure. However, a question arises whether they properly manage the support received for this purpose, and what will be the further fate of the existing structures, especially considering the disturbing signals about the increasing number of declining groups. The question arises as to what is the reason for this state of affairs. The answer to this question is not so simple and straightforward. In many cases, it seems, these are organizational difficulties, showing the failure of the management system of such an organism, especially after the period of the so-called "initial start-up".

Leaving these structures on their own in terms of finances, reveals, in many cases, the real purpose for which these groups were formed. It often turns out that the leaders of these structures did not fully understand the idea of group cooperation, wanting to pursue only their private interests, not caring for the interests of all members and not caring about further development and increasing financial profits. The observations conducted on this market also allow to show the weaknesses and deficiencies of the financial management system of these enterprises. The observed effect of such ineffective actions is the gradual loss of motivation to function and cooperate in the group, which results in the gradual withdrawal of many individual producers and undertaking their independent production and trade activities. It is often associated with the lack of trust in the people managing the group, as well as noticing the lack of sense in participating in joint activities due to the declining financial results of these groups, and thus the income of individual producers who are their members.

For this reason, it is necessary to verify the causes of the difficulties and weaknesses in the functioning of domestic producer groups. This is particularly important when planning further work on the development strategy related to the new CAP financial perspective, and determining the place and role of producer groups in the future landscape of rural and agricultural functioning in Poland.

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