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## Land concentration processes in Poland in the light of D.C. North's development paradigm

**Abstract:** The subject of this paper is the process of land ownership consolidation. The primary goal of the research is to address the question of whether a connection exists between institutional conditions arising from various historical experiences in Polish regions and the dynamics of land ownership concentration processes in Poland, and whether this can lead to a spatially diversified model of development for Polish agriculture. The research was conducted based on a critical analysis of literature concerning institutional aspects of rural areas and data from the General Agricultural Censuses of 2010 and 2020. The research results are presented in the form of process mapping. As indicated by the conducted studies, land ownership concentration processes are advancing in Polish agriculture, leading to the emergence of industrial agriculture, which may contradict the paradigm of sustainable development. However, in spatial terms, these processes occur unevenly, and their scale and dynamics depend on different historical experiences. Concentration processes are primarily visible in western and northern Poland, regions where an almost complete population exchange occurred as a result of World War II, leading to a disruption of institutional continuity. In Southeastern and Central Poland, these processes occur more slowly. This may lead to the formation of a dual model of agricultural development in Poland, where, on the one hand, industrial agriculture will operate, striving for increased competitiveness through productivity growth, and, on the other hand, sustainable agriculture will develop (in Southeastern and Central Poland).

**Key words:** land concentration, D. C. North's development paradigm, Poland

### Introduction

The subject of the considerations presented in this paper is the issue of the direction of agricultural development. In the field of economic theory, two different concepts of its development clash. On the one hand, economists rooted in the neoliberal development paradigm see the need for further profound transformations in this sector, aiming to increase its productivity and improve competitiveness on a global scale. Achieving this goal requires the development of industrial

agriculture based on large and medium-sized farms capable of benefiting from economies of scale and reducing unit production costs (cf. United Nations 1990, Fitzgerald 2010, Czyżewski 2017). This abstraction overlooks the impact of these actions on the social and environmental spheres. On the other hand, views are expressed according to which agricultural development should occur in line with the sustainable development paradigm, considering not only economic factors but also environmental and social needs (cf. Woś et al. 2002, Velten et al. 2015, Zegar 2021).

Parallel to academic discourse and political debates in Polish agriculture, processes are taking place that permanently change the shape and functioning of agriculture. A significant role should be attributed to visible processes of land ownership concentration. This concentration favors the development of industrial agriculture but is contradictory to the principles of sustainable development. The change in management conditions caused by land concentration processes, on the one hand, forces the modernization of rural areas, but on the other hand, largely deprives them of their proper traditions and local character. This leads to a radical transformation of agriculture from the “peasant model” to a “mega-enterprise” farm, also resulting in a change in the market structure from perfect competition to oligopoly, where the perspective of large corporations dominates, with a simultaneous weakening of the institutional (political) factor (Zegar 2012, p. 23). It is worth emphasizing that the dynamics of the examined phenomenon vary in different provinces. This process occurs faster in northern and western Poland, while slower in southeastern and central Poland. Therefore, the question arises about the cause of regional differences. This question is even more valid when we realize that Poland, following the Common Agricultural Policy of the European Union, pursues a uniform agricultural policy and does not differentiate space, in principle, with support instruments. The country is treated as a uniform internal entity, where identical economic processes take place.

One of the most important, yet still underestimated, factors influencing development is the institutional system. The essence of this system is the collective and organized action to shape, direct, and unleash the behaviors of individuals for their development. This system arises from a complex socio-political process, conditioned by specific historical events and as a result of deliberate actions by the state itself (North 1994a, b).

The main goal of this article is to answer the question of whether there is a connection between institutional conditions resulting from different historical experiences of Polish regions and the occurring processes of land ownership concentration in Poland, and whether this can lead to a dual spatial model of Polish agricultural development.

It should be emphasized that, although research on the division of Poland in terms of socio-economic development has already been conducted and its results presented in the literature, further studies are necessary to assess whether these divisions are diminishing or persisting. If the two economic transformations – first from a market economy to a centrally planned economy, and then from a cen-

trally planned economy back to a market economy – did not lead to convergence in agricultural development levels, this suggests that the causes of the division are deep-rooted and should be explored within the framework of the concepts formulated by D.C. North. This article builds upon existing research while broadening its scope to include an institutional context. The novelty of the article lies in demonstrating that the development of Polish agriculture aligns with North's thesis on the existence of so-called path dependence.

## Literature review

Douglas C. North is a prominent figure in both New Institutional Economics and economic history. In his research, he focused on the relationships between broadly defined institutions and economic development. He defines institutions as human-created constraints, encompassing informal constraints such as sanctions, taboos, customs, traditions, and codes of conduct, as well as formal constraints, including the constitution, law, and property rights. Historically, people have established these institutions to maintain order and reduce uncertainty in exchange. Alongside economic constraints, they shape specific choices made by individuals in the economic process. By influencing transaction and production costs, institutions determine the profitability of engaging in specific economic activities. These institutions evolve, connecting the past with the present and future, being influenced by historical changes in the economy (North 1994a).

In "Economic Performance Through Time" North (1994b) argues that institutions should be approached dynamically because their changes impact how societies evolve over time. This means that institutions are crucial for understanding historical changes and, as such, find application in economic history, which analyzes economic changes over time. The role of institutions is not only to illuminate economic history but also to contribute to the creation of economic theories by providing an analytical structure that facilitates an understanding of economic change.

Economic management is a dynamic process. If there were a theory of economic dynamics approaching the precision of general equilibrium theory, it would be an ideal analytical tool. In the absence of such a theory, we can examine the characteristics and changes in economies at different times and engage in comparative static analysis. However, there is a lack of analytical understanding of how economies develop over time.

Therefore, a theory of economic dynamics would be crucial for considerations related to economic development. Since there is no such theory, North presents a preliminary analytical framework that allows for a better understanding of historical economic evolution. This framework is a modification of neoclassical theory, retaining the basic assumptions of scarcity and competition, as well as the analytical tools of microeconomic theory. However, the assumption of rationality has been modified, and a time dimension has been added (North 1994a, p. 359).

According to North, institutions create the motivational structure of societies and are fundamental determinants of economic changes. The evolution of institutions is influenced by social evolution, which results from the learning processes of individuals and societies. Knowledge accumulates over time and is passed from generation to generation through culture. The speed of economic changes depends on the ability to learn, with the direction of these changes determined by the costs of acquiring new knowledge (North 1994a, p. 359, 362). Institutions also influence economic development. Stable political structures and well-defined property rights reduce transaction costs, which, according to North, form the basis for the success of economic development (North 1998, p. 14).

As stated by North, institutions constitute a kind of scaffolding consisting of formal and informal constraints that define available ways of action and development directions, known as paths of dependence. However, it is essential to remember that each society is unique, and therefore, the specific institutional structure determining economic actions should have characteristics unique to a particular country. Due to being based on worldview beliefs, which change relatively slowly, it is usually stable (North 1998, p. 16).

North also emphasizes the difficulties associated with implementing policies aimed at introducing changes in the economy. Even if we have knowledge of its state and functioning, we may lack effective instruments to make the desired changes. These instruments consist of formal rules, and economic practice aligns with both formal and informal rules. Additionally, economic policy, like the economy, undergoes continuous changes. The paths of dependence indicated by North lead to an understanding of the existence of various development paths dependent on cultural heritage and historical economic experience. The readiness for change depends on the strength of existing institutions and the worldview system of a given society (North 1998, p. 16).

The above considerations can also be related to the issue of land concentration in Poland, where institutional matters are an important, albeit still underestimated, factor in the sustainable development of agriculture and rural areas.

## **Research methods**

Research on changes in the structure of farms was conducted using Poland as an example, ranking third in the European Union in terms of agricultural land area, following France and Spain. The agricultural land area in Poland is 18.6 million hectares, constituting over half, precisely 56%, of the country's total land area (Ministry 2019).

The starting point for the conducted considerations was based on the following assumptions:

1. The coherence of Poland's socio-economic development was interrupted due to partitions. The development of individual regions resulted from their roles in respective states. This also applied to agriculture, where the directions of

transformations and development were derived from changes occurring in the partitioning countries.

2. Divergent paths of agricultural development and varying attitudes of occupiers towards Poles and Polish land ownership resulted in the formation of different informal and formal institutions. During the partitions, specific institutional matrices were shaped for individual areas, and their influence is still visible today.
3. After World War II, a transformation occurred from a capitalist to a command-administrative economy, which also affected agriculture. However, in this case, it did not disrupt the institutional core, and individual areas continued to develop within the so-called paths of dependence formed during the partitions. The exception was the western and northern territories incorporated into Poland, where the role of the command-administrative economy in agriculture was more significant, and the ties binding the incoming population were looser.
4. The systemic changes that occurred after 1989 reinforced existing divisions. Relatively economically strong farms in the Greater Poland, Pomeranian, and Kuyavian-Pomeranian voivodeships expanded their land area, while small farms continued to dominate in southern and eastern Poland. In the western and northern regions, the privatization of State Agricultural Farms led to the creation of large-scale farms.

Several research methods were applied in this study. The first part, focusing on the institutional aspects of rural areas, utilized a critical analysis of relevant literature. In the second part, characterizing the processes of land ownership concentration in both time and space, a comparative method was employed.

For time comparisons, cross-sections of the years 2010 and 2020 were adopted. The analysis was based on data from general agricultural censuses conducted in those years, providing the broadest and most reliable source of information on agriculture and rural areas in Poland. This allowed for comprehensive insights into transformations in Polish agriculture. By comparing the results of agricultural censuses, the directions of changes in Polish agriculture were identified and visualized in the form of cartograms.

The spatial perspective applied in this study aids in understanding the relationships between objects and phenomena in specific locations, leading to a better comprehension of ongoing processes in a given area. Spatial comparisons utilized the division of Poland into voivodeships (regions). This allowed for the identification of regions where processes of land ownership concentration are advancing more rapidly and regions where these processes are slower.

The adopted methodology in the article led to the formulation of the following hypotheses:

H1: The dynamics of ongoing land concentration processes are a result of "long duration" and depend on institutional conditions. The neoliberal development paradigm in Poland not only solidified but even strengthened existing regional differences.

H2: In western and northern Poland, where institutional constraints on land turnover are lower, and in the lands of the former Prussian partition, efficient (in strictly economic terms) and competitive agriculture will develop. In the remaining areas of the country, institutional conditions favor sustainable agricultural development.

## Results

Analyzing the ongoing land concentration processes in Poland in connection with institutional conditions resulting from historical experiences, four distinct areas should be distinguished, namely: western and northern territories (annexed to Poland after World War II), territories of the Prussian partition, territories of the Austrian partition, and territories of the Russian partition. Each of these areas developed under different institutional conditions until 1989, as illustrated in Table 1.

Table 1. Institutional conditions for the development of lands in Poland

Category	Western and Northern Lands	Prussian Partition Lands	Austrian Partition Lands	Russian Partition Lands
Development path	Break with previous development path; influenced by post-1989 reforms.	Institutions favoring large farms.	Peasant enfranchisement, gradual consolidation.	“Land hunger” division of farms among children, limited modernization.
Population and settlement	Population exchange, internal migrations, settlement difficulties.	Land consolidation and regulation.	Large villages and dense network of towns.	Small villages with scattered buildings.
Farm characteristics	Individual farms (7–15 ha), emerging large-scale farms.	Privileged large commercial and productive farms.	Peasant-worker farms with dual occupation.	Dominance of medium-sized farms, gradual elimination of smallholdings.
Institutions and organizations	Weakened informal institutions, significant state ownership (PGRs).	Strong peasant organizations and cooperation.	Early introduction of compulsory schooling.	Abolition of servitudes, limited institutional support.
Social capital	Relatively high share of state farms, evolving social cohesion.	High level of human and social capital, early institutional development.	Dual occupations (peasant-worker), fostering resilience.	Low social capital due to fragmented reforms, late access to education.

Source: own elaboration.

After 1945, there was a departure from the previous development path in the western and northern regions. These areas were populated by incoming people,

which contributed to the formation of new informal institutions. The need to develop new lands led to the predominance of private farms with an area ranging from 7 to 15 hectares (Kociszewski 1999, p. 222). Simultaneously, both factual and legal conditions favored the development of state ownership. As a result, State Agricultural Farms (in Polish Państwowe Gospodarstwa Rolne: PGR) had a relatively high share in the overall land structure. In 1989, PGRs operated on approximately 17.8% of the total agricultural land area in Poland (3.3 million hectares). The majority of PGRs were in Western Poland, where their land accounted for over 50% of the total arable land (GUS 1990). The privatization after 1989 of PGRs laid the foundation for the development of large-scale farms. Concentration of land was also facilitated by the fact that individual farms in the western and northern regions were relatively economically strong, thus capable of expanding their acreage.

In the Prussian partition, both formal and informal institutions favored the emergence of relatively large and commercial farms. The so-called Prussian path to capitalism, involving gradual enfranchisement of peasants with compensation, was also associated with land consolidation and regulation, as well as the elimination of servitudes and communal land holdings. This process prevented the fragmentation of peasant farms, leading to the formation of an agrarian structure in the Prussian partition, encompassing manorial farms (abolished after World War II due to agrarian reform), strong peasant farms with an area exceeding a dozen hectares, and small farms. Organizations promoting cooperation among farmers, such as credit unions, agricultural circles, and cooperatives, were established relatively early in the Prussian partition. Compulsory education at the elementary level was also introduced in rural areas. These actions were responses to the Prussian authorities' policies aimed at suppressing Polish culture and strengthening German landownership. In summary, this region was characterized by a relatively high level of human and social capital. The cooperative movement promoted trust-building and cooperation.

The Austrian partition exhibited a fragmented structural pattern in the agricultural areas, with a specific settlement structure based on large rural units and a dense network of local centers. The agrarian structure in the Austrian partition was influenced by various factors, including the specifics of the inheritance law in the Austro-Hungarian Empire. The characteristic "land hunger" of Galician agriculture, combined with a lack of employment opportunities in industry, led to the division of already small peasant farms among their children. Small farms often produced solely for their own needs, contributing to a decline in agricultural culture. In the mid-19th century, farms below 3 hectares accounted for approximately 43% of all farms, but they controlled only 14% of the land area in Galicia (Bański 2007, p. 78).

Lack of convenient credit led to the spread of usury, hindering economic activities in rural areas (Łoziński 1979). The rural population was forced to seek additional sources of livelihood in cities, leading to the formation of the peasant-laborer farm type (according to the family approach) or, alternatively, the dual-occupation population type (according to the individual approach).

In the Russian partition, the settlement network was dominated by small villages with dispersed buildings, accompanied by a poorly developed network of locally significant towns. Compared to other partitions, the fight against illiteracy started relatively late, and universal rural education was introduced only in the 1890s. Enfranchisement occurred in a one-time act, leaving previous land users unchanged (farms could not be smaller than 6 morgs) and not addressing issues related to rural economy (servitudes, various forms of hidden serfdom, ensuring labor force for manorial farms).

Actions taken during the enfranchisement led to the elimination of dwarf farms, resulting in an increase in the share of medium-sized farms, which dominated the agrarian structure of the countryside, constituting about 35% of farms. Family divisions led to the fragmentation of farms, but it did not reach the level of similar processes in Galicia at that time. Summarizing, the legacy of the partitions shaped three types of rural areas with different features such as agrarian structure, settlement structure, infrastructure elements, educational structure, and demographic structure. Reforms undertaken in the interwar period did not fundamentally change the agrarian structure of Polish villages shaped during the partitions. The intended change in the ownership structure of agricultural land was to be brought about by the land reform announced in 1944 in the Manifesto of the Polish Committee of National Liberation (PKWN), stating that land was to become the property of peasants.

However, the results of the reform varied by region. In the strongly fragmented south (Austrian partition), large estates were scarce, so land partitioning had little impact on changing the average size of a farm. In eastern and central Poland, land was acquired by farm laborers and small farms, which slightly improved the agrarian structure there. In the west, new farms were mainly created, and they were received by former farm laborers or people resettled from other parts of the country (Bański 2007, p. 87).

Contrary to the assumptions, these actions did not lead to the elimination of regional differences; instead, they preserved them (Paliwoda 1964). Two years after the war, the country's agricultural policy began to change, and collectivization of agriculture played an increasingly significant role. It aimed to create agricultural production cooperatives, weaken the role of private agriculture, and thus prevent land fragmentation.

The process of socializing land ownership was most broadly implemented in the western and northern regions. Therefore, as mentioned earlier, the restructuring of the state sector in the 1990s became the basis, on the one hand, for the creation of large-scale farms and, on the other hand, for changes in family farming (i.e., an increase in the average size of individual farms due to the purchase of state-owned land by farmers).

It is worth noting that the processes of land concentration after 1989 were favored by state policy. According to the Act on the Management of Agricultural Real Estate of the State Treasury from 1991 (establishing the Agricultural Property Agency), in the early years of privatization, the sale and lease of large units were preferred, often in their entirety. This, combined with the lack of prefer-



ences for family farms, resulted in the concentration of land and subsequently capital, especially in the western and northern regions.

Currently observed in Poland is the reduction in the number of farms, especially those below 10 hectares, while there is a simultaneous concentration of agricultural land in farms with areas of 50–100 hectares and over 100 hectares. Although this process is occurring relatively slowly (Zegar, 2009), it is becoming increasingly visible.

According to data from the General Agricultural Censuses, the number of farms in Poland decreased by approximately 12.7% from 2010 to 2020, from 1,509,000 to 1,317,000. The most noticeable phenomenon was the reduction in the number of farms with an area of up to 10 hectares (by about 15.9%, from 1,160,000 to 976,000). At the same time, there was a stabilization in the number of farms with areas of 10–30 hectares, and an increase in the number of farms with areas above 30 hectares. There was a particularly noticeable increase in the number of farms considered large (50–100 hectares) and very large (over 100 hectares), by 52.9% and 30%, respectively.

The dynamic growth of the number of large and very large farms, combined with the liquidation of small farms, resulted in the share of farms with over 50–100 hectares and over 100 hectares in the overall farm structure reaching approximately 2.9% and 1.7%, respectively, in 2020. In 2010, these shares were 1.9% and 1.2%, respectively.

Regionally, the land concentration processes presented above occur unevenly, showing different spatial dynamics. Despite this, it is worth emphasizing that these regional disparities have rarely been addressed in previous studies.

In 2010, the share of farms with an area of over 100 hectares was highest in the western and northern regions, i.e., in the provinces of Zachodniopomorskie (4.7% of all farms), Lubuskie (2.9%), Warmińsko-Mazurskie (2.4%), and Dolnośląskie (2.0%), as illustrated in Figure 1. These farms also accounted for at least 1% of the total farm structure in the Opolskie, Pomorskie, Kujawsko-Pomorskie, and Wielkopolskie provinces. It can be concluded that the land concentration processes had the greatest impact on provinces that were incorporated into Poland after World War II or functioned within the framework of the Prussian partition. An exception is the Śląskie province, but its current administrative boundaries include lands from various partitions, including the Austrian partition.

The lowest percentage of farms over 100 hectares was characteristic of the Małopolskie (0.1%) and Świętokrzyskie (0.1%) voivodeships, which were historically part of the Austrian partition. The remaining voivodeships that were part of the Austrian and Russian partitions also had a low concentration index. In 2020, the processes of land concentration, measured by the number of farms over 100 hectares, were still most visible in the western and northern regions, especially in the voivodeships of Zachodniopomorskie (6.9%), Lubuskie (4.8%), and Opolskie (3.8%). A relatively high share of the largest farms was also noted in the voivodeships of Pomorskie (2.5%), Warmińsko-Mazurskie (2.3%), and Dolnośląskie (1.9%).

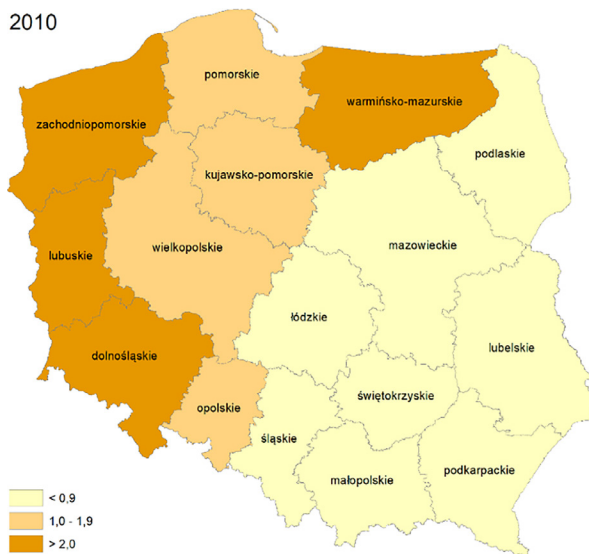


Fig. 1. The share of farms over 100 hectares in 2010  
 Source: own elaboration based on the General Agricultural Censuses.

The smallest share of the above-mentioned farms was recorded in the lands of the Austrian partition, i.e., in the voivodeships of Łódzkie (0.0%), Małopolskie (0.0%), Podkarpackie (0.0%), Świętokrzyskie (0.0%), as well as in the voivodeships of Podlaskie (0.0%) and Śląskie (0.0%), and, as shown in Figure 2.

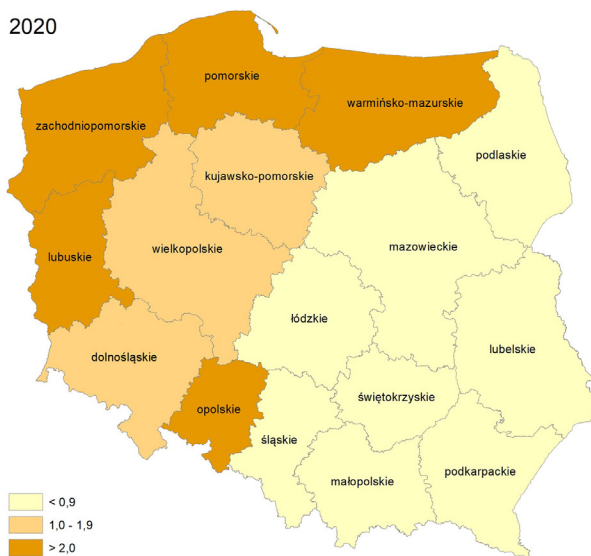


Fig. 2. The share of farms over 100 hectares in 2020  
 Source: own elaboration based on the General Agricultural Censuses.

From the comparison of data for 2010 and 2020, it can be concluded that there is a persistent division into regions where the processes of concentration are more advanced and regions where their impact is smaller. It can even be argued that the neoliberal development paradigm contributed to deepening the divergence in the level of agricultural development between different regions. This is evidenced by the fact that over the analyzed years, the share of farms with an area exceeding 100 hectares increased most rapidly in the western and northern voivodeships of Poland (Zachodniopomorskie by 2.2 percentage points, Lubuskie by 1.9 percentage points, Opolskie by 1.9 percentage points, and Wielkopolskie by 0.7 percentage points, Pomorskie by 0.6 percentage points, and Kujawsko-Pomorskie by 0.6 percentage points). In the same period, in the voivodeships of eastern and southern Poland, this share decreased (Małopolskie, Podlaskie, Podkarpackie, Świętokrzyskie). This share also decreased in the Śląskie and Łódzkie voivodeships. Therefore, it can be seen that in the voivodeships where the initial share of farms over 100 hectares was the largest, the concentration of land ownership is occurring most dynamically. In voivodeships where large farms existed or were established in the early 1990s, the greatest capital accumulation took place, enabling further land acquisitions and expansion of land area. Where agriculture was initially fragmented, the concentration process is decidedly slower. The concentration processes led to an increase in the average size of farms in Poland by 13.3%. In 2020, it was 11.1 hectares (Figure 3), while in 2010, it was 9.8 hectares (Figure 4). It is worth emphasizing that, in terms of the average size of farms, Poland is internally highly diversified. Also, in this case, differences arise from different historical experiences. The largest average farm sizes are

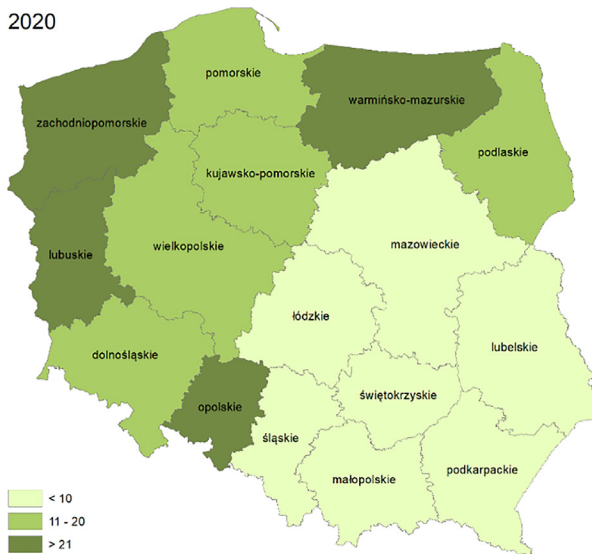


Fig. 3. Average area of agricultural farms in 2020  
 Source: own elaboration based on the General Agricultural Censuses.

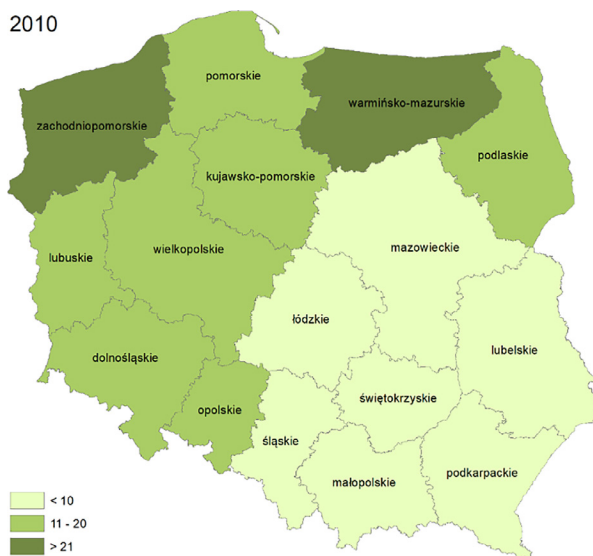


Fig. 4. Average area of agricultural farms in 2010

Source: own elaboration based on the General Agricultural Censuses.

found in the western and northern parts of Poland. The leaders in this regard are the voivodeships of Zachodniopomorskie (30.9 hectares), Warmińsko-Mazurskie (23.9 hectares), and Lubuskie (21.0 hectares). The smallest average size is characteristic of farms located in the voivodeships of Małopolskie (4.3 hectares) and Podkarpackie (4.9 hectares).

In the period from 2010 to 2020, the Opolskie and Lubuskie voivodeships joined the group of voivodeships with an average size above 21 hectares, which is associated with significant dynamics in the ongoing concentration processes. It is worth emphasizing the exceptional situation of the Podlaskie voivodeship in this context. In terms of the average size of farms, this voivodeship is comparable to the Dolnośląskie, Pomorskie, Kujawsko-Pomorskie, and Wielkopolskie voivodeships. At the same time, land concentration processes here are relatively slow compared to other areas in central-eastern Poland. In this case, the current situation is a result of historical conditions and the directions of changes occurring after 1989. As mentioned earlier, the enfranchisement of peasants carried out in the Russian partition favored the emergence of medium-sized farms. According to information from the Portal Informacyjny Województwa Podlaskiego (online), since 1996, the observed phenomenon in the voivodeship is a decrease in the number of medium-sized farms and an increase in the number of small farms (up to 5 hectares) and large farms (over 15 hectares).

## Discussion

As emphasized at the beginning, this article contributes to the ongoing discussion on the state and prospects of Polish agriculture. The article focuses on the ongoing processes of land ownership concentration, subjecting this phenomenon to spatial analysis while simultaneously considering institutional factors. Such an approach allows capturing the relationships between them and the ongoing processes of land concentration.

In Polish literature on the subject, particular attention has been given to the significance of institutions for the development of agriculture by J.W. Bossak, A. Sadowski, and J. Wilkin. According to Bossak, institutions form the foundation of every civilization. They define the rules and principles of coexistence and cooperation that apply to all members of society (Bossak 2008, p. 24). Sadowski, in turn, emphasized the importance of informal norms, which are supported by a system of sanctions (e.g., exclusion from the community, loss of reputation, stigmatization, ostracism), making them deeply rooted in societies (Sadowski 2008/2009, p. 116). A similar view is presented by Wilkin, who argues that informal institutions are the most enduring element of the institutional system, as their evolution is linked to changes in mentality, which are deeply embedded in the culture of a given society (Wilkin 2016, p. 88). Furthermore, Wilkin believes that human behavior in the realm of management can, among other things, be shaped by elements of the institutional system (Wilkin 2016, p. 105). From the above, it can be concluded that current decisions regarding the functioning of agriculture may be a result of attitudes shaped over generations. This is further confirmed by the analysis of the spatial differentiation of the land concentration process presented in this article.

The currently observed processes of land concentration are a continuation of actions initiated during the partition period. In Poland, we are therefore dealing with the effect of 'long duration'. The institutions established at that time were not fundamentally altered by the command-and-distribution economic model introduced after 1945. However, it should be noted that state-owned farms established during this period, especially in the western and northern parts of Poland, contributed to later land concentration in these areas. This concentration was also favored by the neoliberal development paradigm implemented after 1989, which prioritizes the productivity of production factors at the expense of the environmental and social spheres.

At the same time, it is essential to emphasize that the process of land concentration is perceived and evaluated differently among economists. In the literature, opinions vary, with some viewing the ongoing processes of land ownership concentration positively or even considering them too slow, while others express critical opinions about the changes. Among supporters of land concentration, economists predominate, emphasizing the importance of economic growth and increased productivity of production factors (land, labor, capital). According to their views, concentration in agriculture positively influences the transformation of the agrarian structure, resulting in positive economic outcomes. Land con-

centration processes lead to the shift of labor resources to sectors of the national economy with higher labor productivity, causing a general increase in social welfare, improving labor efficiency in agriculture, and increasing the incomes of those employed in this sector. They also serve as an impetus for the implementation of technological progress (mechanization, chemicalization, specialization) on farms (Zegar 2009, p. 259). The positive correlation between land concentration and agricultural modernization is particularly emphasized. The efficient use of land and labor resources requires investments in significant-value fixed assets (Kutkowska et al., 2015). Investment decisions are largely influenced by the level of income, translating into the possibility of using own funds for modernization processes (Kusz 2014). Also, obtaining EU support for the modernization of the agricultural workshop requires a sufficiently high own financial contribution.

Such a viewpoint is an example of aberration resulting from a lack of a holistic perspective on the functions of agriculture and rural areas. It is important to emphasize that rural areas serve not only production functions but also non-production functions. The view that these areas cannot develop according to the neoliberal paradigm seems valid. The advocated modernization of agriculture and rural areas, detached from tradition and internal conditions, is erroneous, as is the pursuit of accelerating the development of agriculture and rural areas at the expense of losing their original functions. It must be emphasized that modernization serves a subordinate role in relation to sustainable development and is not a value in itself. Another argument justifying the concentration of land ownership is the necessity to ensure the self-sufficiency of the economy in food production and the relatively cheaper production of food for social groups with lower incomes. Only farms with an industrial character and a larger land area can meet this need. Czyżewski (2015, p. 15) characterizes this as the 'quantity paradigm', while the same author emphasizes the necessity for the development of alternative agriculture embodying the principles of sustainable development, described as the 'quality paradigm'. Alternative agriculture encompasses qualitative features (public goods, alternative costs of agricultural production, farmers' quality of life), and its principles include decentralization, independence, community, and harmony with nature. Similarly, Kociszewski (2013, p. 73) points out the opportunities and threats arising from land concentration. He primarily draws attention to the growing significance of large farms in agricultural markets, contributing to increased incomes for their owners, rational, in economic terms, use of production factors, ensuring food supply security, reducing household food expenses, higher levels of consumption, and short-term increase in the competitiveness of Polish agricultural products in international markets.

Simultaneously, he highlights unfavorable phenomena resulting from the expansion of industrial agriculture, such as the gradual disappearance of low-productivity farms (especially those under 10 hectares) and their failure to supply the market, the rise of unemployment in rural areas deepening disparities in the living standards of farm owners. Additionally, Kociszewski underscores the environmental aspect, emphasizing the possibility of transforming low-productivity farms into ecological farms, a more rational use of production factors in agri-

culture from the perspective of broadly understood social well-being (achieving economic, ecological, and social goals), utilizing surplus labor in agriculture, limiting migration processes, preserving socio-cultural fabric in rural areas, reducing environmental and social external costs of agricultural production, enhancing the quality of produced food, and increasing its competitiveness in international markets through the supply of organic food and regional products.

It should also be noted that the concentration of land ownership was facilitated, perhaps unintentionally, by state policies. An example could be financial instruments allowing the purchase of agricultural land under the Rural Development Programme (PROW) 2014–2020, specifically the 'Aid for the Start of Economic Activity for Young Farmers'. One of these instruments was preferential loans co-financed by the Agency for Restructuring and Modernization of Agriculture, intended for agricultural modernization. Although not directly aimed at land concentration, it incentivized the ownership of farms with an adequate land area, potentially stimulating further concentration processes.

The above conclusions align with the results of research by leading scholars in the agrarian structure of Poland (Halamska 1989, 2020, Woś 1996, Zegar 2009, Kutkowska et al. 2016, Szymańska 2021, Struś et al. 2023). However, they significantly broaden the perspective by including institutional aspects, allowing for the examination of changes, evolution, and adaptation of institutions in response to changing social, economic, or political conditions. This is particularly important in the context of adjusting institutions to new challenges and improving their functioning. Limitations of the research included available statistical data from Agricultural Censuses concerning changes in the agrarian structure in Poland in various provinces, which did not fully align with the areas affected by partitions. However, the influence of partitions on shaping the contemporary administrative division of Poland is clearly evident in these regions. It is worth noting that the administrative division of Poland has been corrected in different historical periods, through administrative reforms, and as a result of changes in borders after World War II. Therefore, contemporary provinces are the result of many changes over the years, not just a reflection of the division during the partition era.

## **Conclusions**

Based on the conducted analysis, it can be concluded that there is a connection between institutional conditions stemming from different historical experiences of Polish regions and the dynamics of land ownership concentration processes in Poland. Consequently, this may lead to a spatially diversified model of the development of Polish agriculture, and thus, the research goal has been achieved.

The adopted institutional perspective allowed for the examination of changes, evolution, and adaptation of institutions in response to changing social, economic, or political conditions. This is crucial in the context of adjusting institutions to new challenges and improving their functioning.

The analysis revealed that the dynamics of ongoing land concentration processes are a result of the 'long duration' and depend on institutional conditions. The implemented neoliberal paradigm of agricultural development in Poland not only solidified but even strengthened existing regional differences. In Polish agriculture, processes of land ownership concentration are advancing, leading to the emergence of industrial agriculture, which may be in conflict with the paradigm of sustainable development. However, spatially, these processes occur unevenly, and their scale and dynamics depend on institutional conditions rooted in the historical experiences of individual regions, thus verifying the first hypothesis.

The research also showed that concentration processes are visible in western and northern Poland, regions where almost complete population exchange occurred as a result of World War II, leading to a break in institutional continuity. In southeastern and central Poland, these processes are occurring more slowly. This may lead to the shaping of a dual model of agricultural development in Poland, where on one hand, industrial agriculture aiming for increased competitiveness through productivity growth will operate, and on the other hand, sustainable agriculture will develop (in southeastern and central Poland), confirming the second hypothesis.

A practical aspect of the discussed issues is the possibility of utilizing the research results by the agriculture department for crafting agricultural policy in Poland, aligning with its dual nature. In the future, this will require a shift from a unitary approach across the entire country to an individualized one, coherent with the functionality of rural areas in specific provinces.

### Conflict of interest

The authors declares no conflicts of interest and assures that the work is the result of their own creation.

### The division of work on the article was as follows:

- conceptualisation: MS, MR
- methodology: MS, MR
- research organisation: MS, MR
- formal analysis: MS, MR
- writing: MS, MR

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## Procesy koncentracji ziemi w Polsce w świetle paradygmatu rozwoju D.C. Northa

**Zarys treści:** Przedmiotem rozważań w niniejszej pracy są problemy związane z procesem koncentracji własności ziemi. Głównym celem badań jest odpowiedź na pytanie, czy istnieje związek pomiędzy uwarunkowaniami instytucjonalnymi, wynikającymi z różnych doświadczeń historycznych polskich regionów, a dynamiką procesów koncentracji własności ziemi w Polsce i czy może to doprowadzić do zdywersyfikowanego przestrzennie modelu rozwoju polskiego rolnictwa.

Badania zostały przeprowadzone w oparciu o krytyczną analizę literatury przedmiotu dotyczącej aspektów instytucjonalnych obszarów wiejskich oraz dane z Powszechnych Spisów Rolnych z 2010 i 2020 r. Wyniki przedstawiono w formie mapowania procesów.

Na podstawie badań można stwierdzić, że w polskim rolnictwie postępują procesy koncentracji własności ziemi, prowadzące do powstawania rolnictwa industrialnego, co może stać w sprzeczności z paradygmatem zrównoważonego rozwoju. W wymiarze przestrzennym procesy te zachodzą jednak nierównomiernie, a ich skala i dynamika zależą od odmiennych doświadczeń historycznych. Przede wszystkim procesy koncentracji widoczne są w zachodniej i północnej Polsce, czyli w regionach, w których w rezultacie II wojny światowej nastąpiła niemalże całkowita wymiana ludności, co doprowadziło do zerwania ciągłości instytucjonalnej. W Polsce południowo-wschodniej i centralnej procesy te zachodzą wolniej. Może to przyczynić się do ukształtowania dualnego modelu rozwoju rolnictwa w Polsce, w którym to z jednej strony funkcjonować będzie rolnictwo industrialne dążące do wzrostu konkurencyjności poprzez wzrost produktywności, a z drugiej strony rozwijać się będzie rolnictwo zrównoważone (w południowo-wschodniej i centralnej Polsce).

**Słowa kluczowe:** koncentracja ziemi, paradygmat rozwoju D.C. Northa, Polska