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Research Article

Right to food, agribusiness and land: challenges and opportunities for Ukraine

Direito à alimentação, agronegócio e terra: desafios e oportunidades para a Ucrânia

Dmytro Fedchyshyn [2*(ORCID 0000-0002-1565-8150)], **Iryna Ignatenko** [1,3(ORCID 0000-0003-0398-989X)], **Tetiana Kurman** [3(ORCID 0000-0002-0632-2487)], **Liudmyla Leiba** [3(ORCID 0000-0002-1669-3409)]

[1]University of Bayreuth, Bavaria, Germany. *Author for correspondence: marlynkh@gmail.com
[2]Zaporizhzhia National University, Zaporizhia Oblast, Ukraine.
[3]Yaroslav Mudryi National Law University, Kharkiv Oblast, Ukraine.

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ABSTRACT

This study examines the protection of the human right to food and land from violations by agribusiness entities in Ukraine under conditions of armed conflict and agricultural land market liberalization. The large-scale military aggression of the Russian Federation has significantly weakened Ukraine's food security through land contamination, infrastructure destruction, and disruption of agricultural production, while simultaneously intensifying risks associated with land concentration and export-oriented agribusiness models. The research employs doctrinal legal analysis, comparative legal methods, and qualitative content analysis of international legal instruments, Ukrainian legislation, policy documents, and statistical data from national and international sources. A systemic approach is used to assess food security as an interconnected legal, economic, and environmental phenomenon, with particular attention to the role of large agricultural holdings. The study finds that agricultural land concentration in Ukraine has reached levels that pose systemic risks to food security and rural development. As of 2023, more than 117 agribusiness holdings control approximately 16% of the country's agricultural land, while the 30 largest holdings lease up to 5 million hectares, predominantly for export-oriented monocultural production of corn, sunflower, rapeseed, and soy. This production model contributes to soil degradation, limits domestic food availability, and marginalizes small and medium-sized agricultural producers. The second phase of land reform, which allows legal entities to acquire up to 10,000 hectares of agricultural land, further increases the risk of excessive land concentration, particularly under wartime conditions when up to 30% of agricultural land is affected by occupation, hostilities, or contamination. The study concludes that the current regulatory framework does not adequately protect the constitutional right of the Ukrainian people to land ownership or the human right to food. It proposes legislative and policy measures aimed at limiting land concentration, strengthening environmental and antimonopoly controls, and ensuring socially responsible agribusiness practices to enhance food security and human rights protection in Ukraine.

KEYWORDS: Food security. Right to food. Land rights. Protection of rights. Agricultural holdings.

RESUMO

Este estudo analisa a proteção do direito humano à alimentação e à terra frente às violações praticadas por entidades do agronegócio na Ucrânia, em condições de conflito armado e liberalização do mercado de terras agrícolas. A agressão militar em larga escala da Federação Russa enfraqueceu significativamente a segurança alimentar do país por meio da contaminação de terras, destruição de infraestrutura e redução da produção agrícola, ao mesmo tempo em que intensificou os riscos associados à concentração fundiária e a modelos de produção voltados à exportação. A pesquisa emprega métodos de análise jurídica doutrinária, método comparativo e análise qualitativa de conteúdo de instrumentos jurídicos internacionais, legislação ucraniana, documentos de políticas públicas e dados estatísticos provenientes de fontes nacionais e internacionais. Adota-se uma abordagem sistêmica para examinar a segurança alimentar como um fenômeno jurídico, econômico e ambiental interconectado, com especial atenção ao papel dos grandes conglomerados agroindustriais. Os resultados indicam que a concentração de terras agrícolas na Ucrânia

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atingiu níveis que representam riscos estruturais à segurança alimentar e ao desenvolvimento rural. Em 2023, mais de 117 holdings agroindustriais controlavam cerca de 16% das terras agrícolas do país, enquanto as 30 maiores arrendavam até 5 milhões de hectares, predominantemente destinados à produção monocultural voltada à exportação (milho, girassol, colza e soja). Esse modelo contribui para a degradação do solo, restringe a disponibilidade de alimentos no mercado interno e marginaliza pequenos e médios produtores rurais. A segunda fase da reforma agrária, que permite a pessoas jurídicas adquirir até 10.000 hectares de terras agrícolas, amplia ainda mais o risco de concentração excessiva, especialmente em contexto de guerra, no qual cerca de 30% das terras agrícolas são afetadas por ocupação, hostilidades ou contaminação. Conclui-se que o atual arcabouço normativo não garante adequadamente o direito constitucional do povo ucraniano à terra nem o direito humano à alimentação. O estudo propõe medidas legislativas e políticas voltadas à limitação da concentração fundiária, ao fortalecimento do controle ambiental e concorrencial e à promoção de práticas agroindustriais socialmente responsáveis, com vistas ao reforço da segurança alimentar e da proteção dos direitos humanos na Ucrânia.
PALAVRAS-CHAVE: Segurança alimentar. Direito à alimentação. Direitos fundiários. Proteção de direitos. Holdings agrícolas.

INTRODUCTION

The ongoing war in Ukraine has drawn global attention to the threat of hunger. The military actions resulting from the large-scale aggression of the Russian Federation, which began on February 24, 2022, have significantly worsened the state of food security in Ukraine. Contributing factors include disrupted logistics chains, destroyed production facilities and infrastructure, and a decline in agricultural output due to reduced arable land caused by landmines, active combat zones, and occupation of territories.

According to Human Rights Watch, the Russian invasion of Ukraine in 2022 has exacerbated the food crisis in the Middle East and North Africa.As of June 2023, the total direct damages inflicted on Ukraine's agricultural sector amount to 8.7 billion USD. These losses include over 4.7 billion USD associated with the destruction and damage of agricultural machinery, and approximately 1.9 billion USD due to the destruction and theft of produced goods. Indirect losses in the agricultural sector are estimated at 40.3 billion USD (KSE 2023).

As a result of military actions, food security in Ukraine has significantly worsened. According to the rankings developed by The Economist Intelligence Unit, in 2023 Ukraine ranked 71st in the Food Security Index among 113 countries, compared to 58th place in the previous year. This 13-position drop is directly attributable to Russian aggression. The sole indicator showing an improved situation is the factor of food quality and safety, where Ukraine scored 71.3 points out of 100, placing 52nd globally (ECONOMIST IMPACT 2022).

Historically, Ukraine has played a dual role in the global food system: as a country capable of ensuring domestic food supply and as a major exporter contributing to international food security. Under wartime conditions, however, the prioritization of export-oriented agricultural production raises complex legal and policy challenges related to national food sovereignty, access to land, and the protection of the human right to food. Ensuring food security in such circumstances requires not only increasing agricultural production but also preserving and restoring natural resources, safeguarding access to land, and establishing effective legal mechanisms capable of regulating agricultural activity in the public interest.

In this context, the structure of agricultural production and land use becomes a critical analytical dimension. Over recent decades, Ukraine's agricultural sector has been increasingly characterized by the expansion of large agribusiness entities, particularly agricultural holdings, whose activities are closely linked to land concentration, monocultural production, and export-oriented strategies. While such entities may contribute to economic efficiency and export revenues, their growing dominance raises concerns regarding the marginalization of small and medium-sized producers, environmental sustainability, and the realization of fundamental human rights, including the right to food and the right to land.

Against this background, this study seeks to address the following research problem: to what extent does the current legal and institutional framework governing agribusiness activity and agricultural land use in Ukraine adequately protect food security and related human rights under conditions of armed conflict and land market liberalization? The objective of the article is to analyze the impact of agricultural holdings on food security and land rights in Ukraine, assess the risks associated with excessive land concentration, and formulate legal and policy recommendations aimed at balancing economic efficiency with the protection of human rights and national food security.

MATERIAL AND METHODS

Theoretical Foundations

The theoretical framework of the study is based on interdisciplinary concepts of the human right to food, food security, and sustainable land use, as developed in international human rights law, agrarian law, and food systems research. The study draws upon the rights-based approach to food security, according to which access to adequate food is a legally protected human right rather than merely a policy objective (WOLPOLD-BOSIEN 2012, FAO 2013, DE SCHUTTER 2014).

In accordance with Article 11 of the International Covenant on Economic, Social and Cultural Rights, food security is understood as a condition in which all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food necessary for an active and healthy life. This concept is examined in conjunction with the legal notion of food sovereignty, which emphasizes the role of states in safeguarding domestic agricultural production and protecting natural resources, particularly land, as the material basis for food systems.

The study also relies on the food systems approach, which conceptualizes food security as the outcome of interactions between agricultural production, land use, environmental sustainability, institutional governance, and socio-economic structures (ERICKSEN 2008, HUBEAU et al. 2017, VAN BERKUM et al. 2018). This framework is particularly relevant under wartime conditions in Ukraine, where disruptions in any component of the food system may have cascading effects on food availability, accessibility, and stability.

Within this theoretical context, agricultural holdings are examined as a specific organizational and legal form of agribusiness that significantly influences land relations, agricultural production models, and rural development. The study adopts a critical political economy perspective, which allows for the assessment of how land

concentration, export-oriented monocultural production, and corporate governance structures affect the realization of the right to food, environmental sustainability, and social rights in rural areas.

Research Methods

This study employs a qualitative interdisciplinary research design, combining legal, policy, and socio-economic analysis to assess the impact of agribusiness entities on food security and human rights in Ukraine, particularly under conditions of armed conflict.

The primary method applied is doctrinal legal research, which involves the systematic analysis and interpretation of legal norms, principles, and case law (McCONVILLE & CHUI 2017). This method was used to examine international legal instruments governing the right to food and land use, as well as national legislation of Ukraine regulating agricultural land relations, food security, and the activities of agribusiness entities.

A comparative legal method was employed to assess Ukrainian regulatory approaches in relation to international and European standards in the field of food security, sustainable agriculture, and competition law (ZWEIGERT & KÖTZ 1998, FEDCHYSHYN et al. 2024). This enabled the identification of regulatory gaps and inconsistencies and supported the development of proposals aimed at improving national legislation.

The research also applies a systemic and structural-functional approach, which allows food security to be analyzed as a complex system shaped by interrelated legal, economic, environmental, and institutional factors (ERICKSEN 2008). This approach facilitated the identification of systemic risks associated with land concentration, agroholding expansion, and export-oriented agricultural models.

In addition, the study utilizes qualitative content analysis to examine policy documents, legislative acts, statistical reports, and analytical materials published by international organizations (FAO, UN, World Bank), Ukrainian state authorities, and independent research institutions (FEDCHYSHYN et al. 2020, COUNTRYMAN et al. 2025). This method enabled the systematization of empirical data concerning land degradation, human rights violations, and food security indicators.

An expert-analytical method was applied to assess practical cases related to the activities of agricultural holdings, including land leasing practices, environmental impacts, labor relations, and compliance with food security obligations. Regional data from Ukrainian agricultural areas and documented cases of rights violations affecting small and medium-sized agricultural producers were analyzed to identify recurring patterns and risks.

Finally, based on the results obtained through the above methods, the study formulates normative and legislative proposals aimed at strengthening state regulation of agroholding activities, improving food security governance, and ensuring effective protection of the human right to food in Ukraine during wartime.

RESULTS AND DISCUSSION

Food as a Weapon: Challenges to Food Security

One of the key indicators reflecting the development of a lawful state is its capacity to ensure the observance, protection, and realization of human rights and freedoms. It is widely recognized that the affirmation of human rights and freedoms is among the primary duties of the state. In this context, Kuchuk's (2017) assertion is particularly apt: "Today, most states have recognized the existence of inalienable (natural) human rights. This, in turn, necessitates the implementation of the principle of 'the state for the individual,' rather than 'the individual for the state' ". This principle assumes critical importance when examining the protection of human rights under martial law.

For more than three years, Ukraine has endured a full-scale agression, which has adversely impacted all spheres of societal life. The war has triggered numerous issues related to human rights violations, primarily affecting natural rights that are unconditional and enshrined in legislation, particularly in the Constitution of Ukraine. Unfortunately, the range of human rights infringed upon during wartime is extensive, resulting in countless challenges that demand immediate resolution.

Protecting the human right to food is a critical task for Ukraine during wartime. The right to sufficient nutrition is a fundamental prerequisite for ensuring normal human existence. The physiological need to satisfy hunger, the degree to which this need is met, the quality and safety of available food, as well as its physical, economic, and social accessibility, directly influence societal stability. History offers numerous examples where disruptions in food supply have served as catalysts for social conflicts and political upheavals. Given the essential nature of nutrition for human survival, it is the state's obligation to ensure a minimum level of food for its citizens, thereby guaranteeing their right to nutrition.

The right to adequate food is enshrined in both national and international law. Article 48 of the Constitution of Ukraine mirrors the principles of Article 25 of the Universal Declaration of Human Rights (1948) and Article 11 of the International Covenant on Economic, Social and Cultural Rights (1966), all of which affirm the right of every individual to sufficient and safe nutrition as a component of an adequate standard of living.Thus, at the level of the most significant international instruments, the right to health is closely tied to achieving an adequate level of food security and access to sufficient, safe, and nutritious food that meets dietary needs and food preferences, thereby enabling an active and healthy life.

Even before Russia's military invasion of Ukraine, the Food and Agriculture Organization (FAO) estimated that food security and the human right to adequate nutrition were unfulfilled for over one billion people worldwide (FAO 2011). The war has significantly increased the number of people experiencing hunger (UNN 2022). Another looming threat to food security and the guarantee of adequate nutrition is the continuous growth of the global population. By 2050, the world's population is expected to reach 9 billion (FAO 2009), necessitating not only an increase in food production but also improvements in its quality and safety to ensure access to nutritious and health-promoting food, critical for maintaining proper health.

Nutrition is one of the most vital factors influencing human health. It ensures normal development, aids in the prevention of diseases, enhances quality of life,

extends life expectancy, and supports the individual's adaptation to the surrounding natural environment.

The realization of the right to health directly depends on the availability of quality, nutritious, sufficient, and safe food within an adequate framework of food security. Unfortunately, not everyone receives proper and high-quality nutrition daily, highlighting the urgent need to address food security issues to guarantee the rights to health and life.

The primary goal of food systems is to meet humanity's pressing need for access to safe and nutritious food. This necessitates a shift from food system policies that focus solely on agricultural efficiency to those that prioritize human health as the ultimate objective of food security and nutrition.

A significant majority of food products serve as essential sources of nutrients, access to which can be considered a fundamental human right. Building on this principle, food system design is geared towards ensuring basic nutritional coverage (maximizing food security), contrasting with non-food systems, which are primarily profit-driven. Food systems should aim to maximize health outcomes while still generating profits and sustaining livelihoods (ALARCON et al. 2021).

The scientific literature offers various models of food systems, ranging from simple linear frameworks to complex dynamic ones (SOBAL & BISOGNI 2009). These models consider intricate interactions, synergies, and feedback loops within the system. ERICKSEN (2008) developed a conceptual model of food systems as a system-determined problem. This model includes key activities and actors involved in the food system, as well as critical processes and factors influencing social and environmental outcomes, which are also integral parts of the system. According to Ericksen, even within complex systems, it is possible to identify key processes and determinants that significantly impact outcomes.

Researchers at Wageningen University, expanding on the concept proposed by Ericksen, identified five main driving forces behind changes in food systems: biophysical and environmental factors; innovations, technologies, and infrastructure; political and economic factors; socio-cultural factors; and demographic factors (VAN BERKUM et al. 2018).

Biophysical and environmental factors include natural resources, ecosystem services, and climate change. Political and economic factors encompass leadership, globalization, foreign investments and trade, food policy measures, land use, food prices and price volatility, conflicts, and humanitarian crises. Socio-cultural factors include culture, religion, rituals, social traditions, and gender empowerment initiatives. Demographic factors involve population growth, changes in age structure, urbanization, migration, and forced displacement. The impact of each factor depends on the specific type of food system, the participants involved, and even the actions and measures taken by policies.

Although all food systems share common fundamental characteristics, they vary significantly across different regions of the world. A group of researchers has identified widespread structural failures in existing food systems, such as: the poverty trap; concentration of power and wealth; institutional enclosure in trade; the tragedy of the commons (depletion of common natural resources and ecosystem services); technical

and infrastructural constraints (prevalence of traditional intensive agricultural production systems) (KENNEDY et al. 2018).

In this context, the United Nations emphasizes that national governments must develop their own programs for the development of the food sector, food production, and the food market. It is also necessary to create national programs to support entrepreneurial activities. Furthermore, the international community directly points out the need to address a range of humanitarian and socio-political measures that affect the status and development of food security systems in a region or individual country.

According to the Voluntary Guidelines developed by FAO, the right of every individual to food can be guaranteed and fully ensured only if the country has the necessary infrastructure to implement political, social, and cultural relations, under which “individuals will be able to feed themselves and their families in a free and dignified manner”. Moreover, in order to ensure citizens’ access to food, the state must strive to establish equal and fair access to essential production resources, primarily natural resources (Paragraphs 8.10 and 8.11), and implement measures to educate citizens in the fields of agriculture and food (Principle 11) (FAO 2005).

In the context of international legal instruments, the right to food (the right to nutrition, the right to food security) is realized when every man, woman, and child has, either individually or in cooperation with others, at all times physical and economic access to sufficient food or the means to obtain it (International Covenant on Economic, Social, and Cultural Rights, Article 11; UN Convention on the Elimination of All Forms of Discrimination Against Women – the right of mothers and infants to food (Article 12); Convention on the Rights of the Child, 1989, etc.).

Thus, the issue of food (nutrition) is one of the central themes in the activities of the United Nations and intersects with a significant portion of the Global Goals for Sustainable Development. The UN aims to eradicate hunger by 2030 by ensuring “year-round access to safe, nutritious, and sufficient food”. However, the Organization is already forced to acknowledge that the “zero hunger” goal is currently unattainable. Climate change processes, along with conflicts and wars, poverty, and inequality, are the main challenges and factors impacting food security globally. At present, the war is reshaping the architecture of global food systems. These factors are not weakening and are increasingly encountered in combination with each other, as is happening in Ukraine.

The war in Ukraine is accompanied by the erosion of international humanitarian law, widely recognized standards and values, the destruction of economic and natural resources, civilian and critical infrastructure, as well as numerous instances of violations of the rights of Ukrainian citizens, including their right to food.

The prohibition of intentionally using hunger among the civilian population as a method of warfare and violating the access of civilians and prisoners of war to food and water during armed conflicts is enshrined at the international level (Geneva Convention on the Treatment of Prisoners of War, Geneva Convention on the Protection of Civilian Persons in Time of War).

The deliberate creation of hunger, whether in wartime or peacetime, is recognized under the Rome Statute of the International Criminal Court (1998) as genocide or a crime against humanity.

To support this thesis, let us examine a case of rights violations. For example, on June 6, 2023, the Kakhovka Hydroelectric Power Station (Kakhovka HPS) has been destroyed, causing a large-scale technological disaster, the consequences of which were particularly catastrophic for the southern regions of Ukraine. These areas have historically been major producers of vegetables and fruits in our country, the cultivation of which relies on irrigation systems.

The Ministry of Agrarian Policy and Food of Ukraine reported that, as a result of the destruction of the Kakhovka HPS, the water supply to 31 irrigation systems in the Dnipropetrovsk, Kherson, and Zaporizhzhia regions would be cut off. Before the explosion, these systems irrigated 584,000 hectares of land, from which Ukrainian farmers harvested around 4 million tons of grain and oilseeds worth approximately 1.5 billion dollars. Entire sectors of agriculture in southern Ukraine were put at risk. Vegetable growing and fruit farming in the region could potentially disappear altogether. The Ministry emphasized that as a result of this terrorist act, the destruction of the Kakhovka HPS could lead to the transformation of southern Ukrainian fields into deserts. Farmers in the region will no longer be able to use 1-1.5 million hectares of land effectively (KRAVCHENKO 2023).

Additionally, the explosion of the Kakhovka HPS caused a large-scale environmental disaster in the fisheries sector: aquatic biological resources in the water bodies of Kherson, Dnipropetrovsk, Mykolaiv, and other regions died due to the lack of water. Furthermore, fish hatcheries were flooded. According to the State Fisheries Agency, the losses from the death of all aquatic resources could amount to up to 250 million USD. These figures, however, are not final.

According to statistical data, the total land area of Ukraine is approximately 603.5 thousand square kilometers, of which 70.8% consists of agricultural land, primarily arable land, which occupies almost 68.8% of the country's territory (including: arable land – 53.9%, perennial crops – 1.5%, meadows – 4%, and pastures – 9%). Regarding the ownership structure of agricultural land: 31 million hectares are privately owned, 8.7 million hectares are state-owned, and 1.7 million hectares are municipally owned. As for the land use structure: 56% is leased from owners, 29% is cultivated by owners, 8% is leased from the state, and 7% is uncultivated.

Ukraine accounts for almost a third of the world's black soil reserves and 27% of the arable land in Europe. Around 90% of the territory of Ukraine is used by the population, while the remaining area (about 5 million hectares) remains in its natural state (AGROPOLIT.COM 2020). Ukraine is considered one of the countries with a high level of land availability: there are 64 hectares of arable land per 100 people (for comparison, in the European Union, there are 24 hectares per 100 people, including 32 hectares in France and 14 hectares in Germany) (TARATULA 2014).

Due to the war and its consequences, another issue in Ukraine has become particularly pressing – land contamination and soil pollution. According to the Ministry of Environmental Protection and Natural Resources of Ukraine, as of January 9, 2024, the area of contaminated land is 17,980,636 square meters, causing damage amounting to 23.9 billion USD. The area of polluted soils at that time is 629,345 square meters, resulting in damage amounting to 362 million USD (MINISTRY OF ENVIRONMENTAL PROTECTION AND NATURAL RESOURCES OF UKRAINE

2024). Experts state that thousands of Russian tanks and armored vehicles are polluting the land with fuel and lubricants, while the remains of burned equipment continue to cause harm as scrap metal. This is carcinogenic debris, and as long as it remains on the land, it poisons the environment with heavy metals, which seep into groundwater.

The situation outlined above may lead to a technological disaster and the recognition of areas contaminated by military equipment as uninhabitable for humans. Missiles launched on Ukrainian territory carry hundreds and thousands of kilograms of chemicals, which, even when completely burned or when remnants enter the surrounding environment, cause significant contamination and are toxic to all living organisms (ANHURETS et al. 2023), including the human body.

Another issue regarding the proper realization of the right to a safe environment for life and health is the mining of Ukrainian territories. The total area of mined territories in Ukraine is 174,000 square kilometers, which is twice the size of Austria (UKRINFORM.UA 2023). Currently, Ukraine is one of the most mined countries in the world. Large-scale mining of agricultural land not only leads to numerous civilian casualties but also prevents agricultural businesses from cultivating fields and harvesting crops. In this way, Russia reduces the supply of food on the global market, thereby exacerbating global hunger.

Furthermore, soils, waters, and subsoil resources are contaminated with hazardous substances that have a prolonged negative impact on the animal and plant world, as well as the life and health of Ukraine's population. This contamination also has significant transboundary effects on the environment as a whole.

The consequences of such catastrophic processes pose a direct and irreversible threat to Ukraine's commodity agricultural production, the state's ability to ensure food security within the country, as well as its ability to fulfill its international obligations in the field of global food security.

Protection of Human Rights to Land from Violations by Agribusiness Entities

Food security and rights to land

The issues outlined above make it impossible to properly implement the constitutional right to a safe environment for life and health. Ukrainian citizens are unable to fully utilize the objects of the natural environment and, through them, satisfy their physiological needs. The current stage of Ukraine's development as a rule-of-law state is determined by the complexity and variety of problems accumulated over time, which hinder its sustainable development (LISOVA et al. 2023).

Occupation, military actions, and infrastructure destruction have significantly complicated access to food and essential resources in Ukraine. In such conditions, establishing food security becomes one of the main priorities of state policy. Food security should not be understood solely as the availability of food. It also depends on the resilience of the food production system and access to essential resources. Equally important is a country's ability to meet its own food needs, particularly under conditions of armed conflict.

The right to land constitutes a cornerstone of food security, as it enables the sustainable production of agricultural goods necessary for national survival. However, the ongoing war has severely restricted access to arable territories, particularly those

occupied or mined, thereby undermining both agricultural productivity and the realization of constitutional land rights. Supporting the agricultural sector, which is vital for food security, requires effective management of land resources and ensuring land rights.

A clear normative consolidation of the guarantees of the right to land ownership in the Constitution of Ukraine is crucial for the functioning of the system of protection of land ownership rights. A notable positive aspect of the national legislation is the presence of a system of guarantees for land ownership rights in the Land Code. These include guarantees for the protection of land rights, compensation for damages to landowners and land users, and mechanisms for resolving land disputes. However, these guarantees, in our view, should primarily be reflected in the Constitution of Ukraine (IGNATENKO et al. 2024).

The right to land must serve as a guarantee for farmers, agricultural enterprises, and communities, as without it, the right to food, which is one of the fundamental human rights, cannot be realized. Access to land and its use must be protected, even in times of conflict, as it is the foundation for sustaining food production and ensuring the country's food independence.

Furthermore, the right to land in wartime is not only an economic issue but also a matter of security and strategic importance. Ensuring food supply during wartime is part of national security, as food dependency on external supplies complicates a country's ability to withstand aggression. Thus, guaranteeing the right to land not only supports food security but also bolsters the resilience of the economy, society, and the state.

Ukrainian land has always attracted interest from foreign investors as a means of production and an object of investment. This trend of increasing interest has remained steady for quite some time, and there are no foreseeable reasons to expect a decline in this interest (FEDCHYSHYN et al. 2019).

Natural resources are diverse, but land is increasingly becoming a valuable resource for most countries. Nations are striving to achieve high economic growth, which, in turn, is linked to the development and exploitation of land resources. It is often found that such "exploitation" is associated with the acquisition of millions of hectares of agricultural land by wealthy corporations or even foreign states. Ukraine is no exception in this regard. Several complex factors have contributed to the wave of large-scale land deals in Ukraine. We shall pay attention to it in more detail.

Firstly, interest in Ukrainian lands has arisen in light of global climate change.

According to climatologists' predictions, desertification is becoming an accelerating process on the planet. With rising temperatures and increasing human population, more land is becoming vulnerable to desertification, with lands that were once arable undergoing constant degradation. In other words, deserts will expand (NUNEZ 2019).

For Saudi Arabia, this means that even small territories that were previously not desert-like may begin to turn into deserts. As for China, much of its land suitable for agricultural use lies in low-lying areas near the Pacific Ocean, which may become submerged due to significant rising sea levels. Based on observations by climatologists

over the past few decades, this process seems inevitable and rapid (TYZHDEN.UA 2011).

Of course, the countries at risk are not limited to the two we discussed above. For instance, weather conditions in the agricultural states of the United States are harsh and deteriorate year by year (DYKALENKO 2018). The list of countries in acute need of new land for agricultural purposes is continually expanding.

Therefore, how can these countries feed their citizens? How can they overcome the very real threat of hunger? Naturally, the easiest solution would be to import food from more prosperous nations. However, the actions of governments, legal entities, and individuals in these countries suggest that they do not trust food imports. They wish to control agricultural lands in other countries. It is no coincidence that the land rental market in Ukraine is flooded with foreign companies (REDIKH 2019). This is why foreign countries are showing such keen interest in Ukrainian lands.

Land market liberalization and foreign interest

Ukrainian lands are acquiring strategic significance on a global scale. There is a process of agricultural land loss worldwide, coupled with population growth. As a result, wealthy foreign countries are planning to acquire land in Ukraine. This creates a threat to Ukraine's food security, as today most of agricultural products are exported in the interests of private individuals, with public interests being disregarded.Today, foreign entities already control a portion of agricultural land in Ukraine by acquiring companies that lease land plots from Ukrainian citizens. However, the opening of the land market, due to the lifting of the ban, provides them with a strategically significant opportunity: they can now become owners of these lands. Just like in Saudi Arabia and China, where land is scarce, these countries possess substantial financial resources. With this money, they can easily purchase Ukrainian land.

This indicates that the interest in Ukrainian land has also been sparked by the active operation of the land market.

Since January 1, 2024, the second phase of land reform began in Ukraine – agricultural land can now be bought not only by individuals but also by legal entities, such as companies, banks, and territorial communities.

Since the beginning of Ukraine's independence (1991), the parliament consistently voted to ban the sale of land. The law passed in July 2021 regarding the free circulation of agricultural land was, in fact, a revolution in the agricultural sector. The Verkhovna Rada of Ukraine stipulated that, in the first phase, only individuals – exclusively Ukrainian citizens – would have the right to purchase land. Additionally, the law set a maximum limit on the amount of land an individual could buy, capping it at 100 hectares. The law also established a ban on the sale of state and municipal land and prohibited foreigners from purchasing land. Foreign nationals could only acquire land following a nationwide referendum.

In peacetime, the free land market operated for only seven months. For more than two years, it has been functioning under martial law. As of January 1, 2024, legal entities created and registered according to Ukrainian legislation were granted the right to purchase land. Both these legal entities and individuals are now allowed to buy up to 10,000 hectares of agricultural land – 100 times more than during the first phase of land reform. Some politicians argued that the ongoing war should delay the second

phase of land reform, but the parliament did not consider their proposals, and thus, the sale of land to legal entities commenced.

The introduction of the agricultural land market has long been demanded by the International Monetary Fund (IMF), which made it a condition for providing Ukraine with new loans. Additionally, in 2018, the European Court of Human Rights ruled that the land moratorium violated the rights of landowners, making its repeal a matter of time. However, the crucial question remains: what will the new regulations look like?

Agricultural holdings and their impact

The moratorium was intended to prevent the concentration of land in the hands of large agribusiness holdings but failed to achieve this objective. Despite the formal prohibition on buying and selling land, there has been a significant concentration of land over the past two decades in Ukraine. This occurred because millions of landowners could not cultivate their land individually and, therefore, leased it at low prices, mostly to large agribusinesses. The land leasing sector lacks legal mechanisms to break monopolies. In Ukraine, there are dozens of agribusiness holdings with land banks spanning tens and hundreds of thousands of hectares, which continuously influence state policy.

Over the past nine years, the number of enterprises with a land bank exceeding 10,000 hectares has increased to 118, with their total land bank amounting to 6,228.85 thousand hectares. Currently, the 30 largest agribusiness holdings lease up to 5 million hectares of land (DREBOT & TARNAVSKYI 2022).

It has been established that the ranking of leading agribusiness holdings in Ukraine, both in terms of agricultural production volume and land bank size, changes annually. Research by Agricultural Consulting for the 2021-2022 period shows that before the war, 52 agribusiness holdings operated in Ukraine, utilizing land for commercial agricultural production across the entire territory of the country. The top five agribusiness holdings in Ukraine, ranked by the size of their land bank (i.e., the area of land cultivated and used for grazing), included the following companies: Kernel – 558,000 hectares; Mironivsky Khliboproduct (MHP) – 368,000 hectares; NCH (Agroprosperis) – 360,000 hectares; UkrLandFarming – 358,000 hectares; Astarta – 209,000 hectares; Nibulon – 82,000 hectares (ACS 2022).

According to a study by the agricultural internet publication Mizez, the ranking of the largest agribusiness holding companies by revenue as of 2020 was as follows: Kernel – revenue of 2,329.5 million USD; Nibulon – revenue of 1,946.4 million USD; Mironivsky Khliboproduct (MHP) – revenue of 1,183.3 million USD; UkrLandFarming – revenue of 937.5 million USD; Astarta – revenue of 347.5 million USD (MIZEZ.COM 2020).

Despite the significant share of agribusiness holdings among the business entities in Ukraine, there is no specific legislation regulating the creation and activities of agribusiness holdings and their participants. Currently, the legal basis for their activities in Ukraine consists of the Civil Code of Ukraine and the Law of Ukraine “On holding companies in Ukraine”. Several attempts have been made to legally limit the activities of agribusiness holdings in Ukraine, particularly by setting maximum sizes of agricultural land that they can lease, but these attempts have not been successful.

At present, there is only an increase in the concentration of agricultural land in the largest agribusiness enterprises in Ukraine. According to the website LATIFUNDIST.COM (2024), “the land bank of the top 117 largest agribusiness holdings in Ukraine accounts for 16% of all agricultural land, while over 40,000 other enterprises hold 80% of the land bank, indicating the threat of agricultural land concentration in the hands of large landowners”. Due to economies of scale and superior financial and technical capacities, agribusiness holdings continue to expand their land banks. In contrast, other agricultural enterprises face limited access to credit, a shortage of affordable domestic machinery, and the abolition of preferential tax regimes. As a result, they are often forced to lease their land to agribusiness holdings or discontinue their operations entirely.

The production of agricultural products by agribusiness holdings necessarily involves the use of large land plots, primarily under lease agreements. For example, the agribusiness holding Kernel, which is one of the top 3 largest companies in Ukraine, had 524,000 hectares of land under its control as of 2021, meaning its land area was six times larger than the area of Kyiv (BAKERTILLY.UA 2021).

The five largest agribusiness holdings in the world collectively own 34.5 million hectares of land (S. Kidman & Co (Australia) – 10.7 million hectares, AACo (Australian Agricultural Company, Australia) – 7 million hectares, NAPCO (The North Australian Pastoral, Australia) – 5.8 million hectares, CPC (Consolidated Pastoral Company – a subsidiary of the British investment firm Terra Firma, Australia and Indonesia) – 5.6 million hectares, Beidahuang Group (China) – 5.4 million hectares) (LANDLORD.UA 2015).

Large agribusinesses control 60% of Ukraine’s agricultural land, food markets, production and distribution chains, and receive 60% of government subsidies for agriculture. Agribusiness holdings are interested in export-oriented monoculture production (wheat, barley, and corn). Their products are sold abroad primarily through offshore schemes. Agribusiness holdings avoid time- and labor-intensive food products such as potatoes, vegetables, fruits, meat, and dairy. This market niche in Ukraine is mainly occupied by small peasant farms.

The main goal of agroholdings is to generate the highest profit. From a commercial perspective, this approach seems correct. However, because of such ruthless exploitation, the land becomes exhausted, its fertility is not restored, the country’s main wealth is destroyed, and social problems in rural areas are exacerbated. Agribusiness holdings do not create new jobs for rural populations and do not aim for the sustainable development of rural territories. On the other hand, this has a negative impact on local budgets and causes irreparable harm to rural settlements (FEDCHYSHYN et al. 2023).

As is known, due to the introduction of martial law, restrictions on the export of agricultural crops, and the damage or destruction of key assets of agricultural producers, Ukraine’s agricultural sector has suffered colossal losses. Agricultural lands have been contaminated with heavy metals, littered with fragments of military parts, missiles, and shells due to combat operations and detonations of mines. In nine regions of Ukraine (Dnipropetrovsk, Zaporizhzhia, Kyiv, Mykolaiv, Sumy, Kharkiv, Kherson, Chernihiv, and Cherkasy), approximately 470,000 hectares of land require

inspection and, if necessary, demining. Under these exceptional circumstances, we believe that the extension of restrictions on the acquisition of agricultural land by legal entities is justified.

In the context of the ongoing military actions, the priority task for the Ukrainian agricultural sector has become the reliable provision of the population with agricultural products and food (i.e., ensuring food security). Securing food safety in such conditions becomes a priority, and building food sovereignty is key to continuing the resistance against military aggression. In this regard, farmers, agricultural cooperatives, and other agribusiness entities should play a central role in maintaining and developing internal markets and supply chains for food in the regions.

Given the current situation with the land market, lifting the ban on the alienation of agricultural land would lead to the loss of land as a natural resource for Ukraine, its people, and landowners, which poses a threat to food security and infringes upon the right to land ownership of the Ukrainian people (Article 13, Part 1 of the Constitution of Ukraine). It could happen that agricultural yields in Ukraine, as they are now, will continue to break last year's records, yet the country will face a shortage of food. Let us recall that in 1933, Ukraine had a normal harvest, but at the same time, millions of people perished from hunger. This perspective represents nothing less than the undermining of the country's food security.

In the agricultural and land law sciences of Ukraine, there is no unified approach regarding the need to establish legislative restrictions on the sizes of agricultural land plots that can be acquired for lease or ownership by participants in agricultural holdings. Among the main negative aspects of agribusinesses, legal scholars highlight the threat of significant accumulations of agricultural land in the ownership of legal entities that are part of certain agricultural holdings. For instance, analyzing the trends in the organization of agricultural production in modern conditions, STATIVKA (2021) noted that doubts arise about the functioning of giant agricultural holdings, or latifundia, which own over one hundred thousand hectares. Within the functioning agricultural land market in Ukraine, agribusiness holdings are likely to continue expanding their operations. This expansion occurs through the absorption of insolvent agricultural producers and the widespread use of land leasing arrangements. Additional mechanisms include the transfer of agricultural enterprises' assets into charter capital and the sale of land shares by individual owners.

KULYNYCH (2021) draws attention to several negative aspects of the activities of agribusinesses in Ukrainian agriculture. According to his opinion, these integration associations of agricultural producers displace farms and other small and medium agricultural producers from the agricultural sector, reduce the scope of employment in agriculture, do not create alternative types of employment, and contribute to the degradation of rural areas. Furthermore, they dictate the amount of lease payments, keeping them at the lowest level in Europe.

At the same time, there are opposing views in agricultural law. For example, DUDARENKO (2019), based on a comparative legal study of the legal status of agricultural holdings in Ukraine and abroad, concludes that any restrictions (whether private or public law) on the ability of agricultural holdings to own land for agricultural production are obstacles to ensuring the efficiency of agribusiness. This is because

these integrated business entities can accumulate significant material and other resources, implement innovative production technologies, and ultimately reduce the unit cost of agricultural products for the final consumer. Although the author, while studying the peculiarities of legal regulation of internal agricultural land relations within agribusiness holdings, suggests introducing effective mechanisms to control the acquisition of agricultural land by these holdings (or by corporate subsidiaries), specifically by observing the need to obtain permission for the purchase of land plots larger than 300 hectares within a single district.

It is worth agreeing with URKEVYCH (2013), who suggests that Ukrainian legislation should include a number of specific legal provisions for the operation of agricultural holdings, including legislating limits on the size of land plots that can be leased by agricultural holdings or their participants (agricultural enterprises). Additionally, he proposes limiting the areas where agricultural holdings can operate to specific administrative districts. While Ukrainian agricultural holdings typically control land plots of over 500,000 hectares spread across various regions of the country, primarily in certain geographically close areas, legislative limits on the size of land holdings may not have much legal effect. This is because the agricultural market has already de facto regulated these aspects.

Therefore, the existence of agricultural holdings can be seen as a significant threat to economic competition in the agricultural sector. The scale of an agricultural holding's operations, which could potentially concentrate land resources almost entirely within certain rural territories or even administrative districts, allows it to monopolize access to land – the key means of production and leading economic asset in rural areas. Through excessive concentration of land resources in a few hands, there is a risk of developing monopoly control over land ownership and leasing markets. Consequently, the consolidation of ownership and the transformation of agricultural enterprises into dependent, associated structures leads to the monopolization of agricultural product markets (KYRYLOV 2014).

Thus, the operations of agricultural holding companies lead to the concentration of land through the displacement of a significant number of agricultural producers from the land ownership and leasing markets. This exacerbates the socio-economic situation in rural areas. The key features of this situation are the closure of agricultural enterprises in specific localities; the loss of employment for a portion of rural residents; the absence of tax revenues for local budgets; and the lack of funding for the development of rural social infrastructure, which was traditionally financed by agricultural producers. This situation arises because there is no clear stance in the legislative sphere regarding the appropriateness and future of agricultural holdings in the agricultural sector.

It is evident that agricultural holding companies cause significant harm to domestic agriculture by importing genetically modified plants and engaging in monocultural production, which leads to the degradation of agricultural land.

Currently, Ukrainian legislation does not account for the specific nature of the business operations of agricultural holding companies, which negatively affects not only their functioning but also the relations involving these companies. Today, most agricultural holdings are focused on monocultural production, arguing that

unnecessary diversification of their business could negate the benefits of this approach. Moreover, they seek to maximize profits by producing high-margin agricultural products. These companies have clearly defined production specialization, around which they expand their production, service, commercial, and other business structures.

The contradictory processes emerging in the formation of large agroholdings, as well as the threats they pose, are subjects of intense scrutiny by scholars. For example, MOLDAVAN (2010) argues that large agricultural capital entering the agricultural sector strives for large-scale land use, production concentration and specialization, minimizing hired labor, displacing labor-intensive work, and maximizing the use of chemical agents, genetically modified varieties, and additives in animal husbandry. In essence, it is directed towards achieving economic efficiency. However, by its nature, it cannot perform socially significant functions for people. This leads to a disruption of the multifunctionality concept of agriculture.

However, the most significant issue related to agroholding activity is the imbalance in the “agriculture – village” system. Researchers BORODINA & PROKOPA (2016) note that agroholdings generate excessive profits by exploiting the natural, human, and infrastructure potential of rural areas. In fact, these entities are appropriate and largely withdraw from the agricultural sector the value that could serve as a source for the full reproduction of its natural-resource and production potential, rural living environments, environmental preservation, and improving the quality of life for the population.

The same view is shared by ZAYATS & KRAYEVSKA (2016), who argue that the contemporary, active, and highly contradictory process of “agroholdingization” does not contribute to strengthening the socio-economic foundation of rural settlements, creating new productive jobs for their inhabitants, or improving their access to social services. In Ukrainian rural settlements, there is virtually no or insufficiently developed economic activity capable of providing official employment for the unemployed.

Foreign scholars also highlight the threats accompanying the process of agroholding consolidation in agricultural enterprises. American researchers, analyzing agricultural processes in Latin America, concluded that the dominance of latifundia leads to the destruction of peasantry, environmental catastrophe risks, declining birth rates, and other negative phenomena, which significantly outweigh the benefits of export-oriented production. This prompted the U.S. government to reconsider its land-use system in favor of protecting small farms (ZUBAR 2015).

The advantages of large agricultural enterprises manifest only up to a certain size. This dependence can be observed using the law of economies of scale. The growing effect of scale reflects increased efficiency as the scale of economic activity expands (PANCHYSHYN & OSTROVERKHA 2006). Growing revenues in Ukraine’s modern agroholdings are primarily due to the significant use of tax exemptions and preferences provided by national legislation, as well as proximity to power and budgetary resources (BOLDYRYEVA & SHEREMET 2017).

As we can see, Ukraine’s agricultural policy is largely focused on supporting large businesses. Consequently, the individual sector develops in an environment with quite limited opportunities. Despite this, new legislative initiatives are emerging that lobby

for legal nihilism by agroholdings, which may continue to negatively affect the development of small farming in Ukraine.

Due to economies of scale, financial, and technical capabilities, agroholdings continue to expand their land banks, while other enterprises, due to a lack of accessible credit resources, affordable domestic agricultural machinery, and the cancellation of the special tax regime, are forced to lease their land to agroholdings or even cease operations.

Already today, agroholdings in Ukraine, as a result of their activities, are: exploiting the land unsustainably, failing to regenerate its fertility, violating crop rotations, exacerbating social issues in rural areas, absorbing Ukrainian agricultural enterprises, using pesticides and prohibited hazardous substances, genetically modified seeds and crops, and increasing the production of energy crops at the expense of the population's food needs.

The current legislative mechanisms do not prevent violations and abuses by agroholdings, nor do they allow for effective appeal of these violations or the application of legal accountability measures. In other words, the necessary institutional and legal conditions for their effective functioning and for guaranteeing human rights (such as the right to food, a safe environment, an adequate standard of living, and agricultural entrepreneurship) have not been established.

The results of analyzing the main shortcomings of agroholdings as organizational forms of agricultural production in Ukraine show that virtually all of them could be eliminated through proper state regulation of their activities, based on certain scientifically justified steps, as was done in Brazil and Argentina with regard to their latifundia. As a result, today these holdings play a leading positive socially beneficial role in the development of those countries. Unfortunately, in Ukraine, state regulation in this area can only be considered situational, with its optimal version being based on a reproductive mechanism (DEMA et al. 2019).

Furthermore, the current state agricultural policy is largely shaped by agroholdings, as they leverage their powerful lobby in the Verkhovna Rada. The state, through an appropriate organizational and economic mechanism, must initiate structural changes of an innovative nature, using market and administrative methods to ensure proper control over the activities of agroholding companies, preventing their destructive influence amid the introduction of a land market for agricultural purposes, and fostering competitive development of small and medium-sized enterprises. This should also encourage socially responsible corporate behavior towards local communities and society at large.

CONCLUSION

The study has demonstrated that the growing concentration of agricultural land in the hands of large agroholdings negatively affects Ukraine's food security. These entities prioritize the cultivation of export-oriented, high-profit crops such as corn, sunflower, rapeseed, and soy, leading to soil depletion and reduced domestic food availability. Their expansion contributes to the marginalization of small and medium-sized farmers, the monopolization of agricultural markets, and the increasing foreign control over land resources.

To ensure sustainable rural development and the protection of food security, it is necessary to strengthen the legal and institutional framework regulating agroholding activities. This should include: (1) establishing statutory limits on land ownership and lease concentration; (2) ensuring that part of agroholdings' tax revenues support local communities; (3) introducing mandatory social responsibility requirements, such as employment quotas for local residents; and (4) enforcing strict environmental standards for land use. Together, these measures would balance state and private interests in the agricultural sector.

Given the wartime conditions, where approximately one-third of Ukrainian agricultural land is temporarily unusable due to occupation, mining, and destruction, maintaining restrictions on land alienation is a matter of national security. The loss of control over land resources would undermine Ukraine's sovereignty and violate citizens' constitutional right to land ownership under Article 13 of the Constitution.

Ultimately, food security must be recognized as both a human right and a fundamental component of national security. The state bears responsibility for ensuring this right through coherent legislation, effective institutions, and timely legal remedies. Strengthening state capacity in this domain will safeguard Ukraine's agricultural potential and guarantee the realization of citizens' rights to land, food, and a safe environment.

NOTES

AUTHOR CONTRIBUTIONS

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Authors declare there is no conflict of interest.

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