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Potential for further sustainable development of small agricultural enterprises in Ukraine in the context of European integration and the impact on these processes of military operations

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About the Project "German-Ukrainian Agricultural Policy Dialogue" (APD)

The project "German-Ukrainian Agricultural Policy Dialogue (APD)" has been implemented with the support of the Federal Ministry of Food and Agriculture (BMEL) since 2006 and is currently being implemented until 2024 at its request through the executor of GFA Consulting Group LLC, as well as a consortium consisting of IAK Agrar Consulting, Leibniz Institute for Agricultural Development in Transition Economies and AFC Agriculture and Finance Consultants GmbH. The recipient of the project is the National Association of Agricultural Advisory Services of Ukraine "Dorada". The beneficiary of the project is the Ministry of Agrarian Policy and Food of Ukraine. The project should support Ukraine in the areas of sustainable agriculture, efficient processing industry and international competitiveness in accordance with the principles of market and regulatory policies taking into account the development potential that arises under the Association Agreement between the EU and Ukraine. To meet this goal, the Project should provide information on German experience, in particular, East German, as well as international European experience in development of agrarian and forestry policy framework, as well as on the organization of relevant agrarian and political institutions.

The APD consists of two thematic pillars, one of them – the land component – is managed by BVVG German AgriForest Privatization Agency, a state-owned enterprise that is responsible for the administration of state-owned agricultural and forestry land in (Eastern) Germany. Under the land component, the project offers an exchange of experience and know-how between Ukrainian and German land management experts from BVVG and additional German land management institutions. The land component focusses on political, legal and technical issues related to land management and accompanies the current discussions in Ukraine concerning land market development.



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CONTENTS

Ukraine and the prospect of European integration	4
The role of small enterprises in the production and export of agricultural products, experience and prospects of trade with the EU	5
Agricultural enterprises and the implementation of sustainable developmentation developm	<i>nt</i> 9
Farmers' assessments of the implementation of sustainable development approaches (survey results)	15
Assessment of post-war potential and challenges	17
Suggestions and needs for further sustainable development of small agricultural enterprises	18
Risks and proposals for their management	20

Ukraine and the prospect of European integration

The signing of the Association Agreement between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their Member States, on the other hand¹ (hereinafter referred to as the Agreement; the Association Agreement) was a key milestone in the process of Ukraine's European integration. The Agreement was ratified by Law №1678-VII of 16 September 2014.² European integration is an unchanging strategic priority of Ukraine's state policy, dictated by the fact that Ukraine belongs to the European civilisation and is the choice of the Ukrainian people. Ukraine has committed to implementing its legal framework in line with the requirements of the European Union. The Agreement provides for monitoring and evaluation of its implementation in accordance with the Action Plan for the Implementation of the EU-Ukraine Association Agreement ³

Chapter 4 "Sanitary and Phytosanitary Measures" of the Association Agreement contains commitments to approximate Ukrainian laws to those of the EU and to further implement the principles of the SPS Agreement. Ukraine has to approximate its legislation on sanitary and phytosanitary measures for animal welfare to the EU legislation, as defined in Annex V to the Association Agreement.

Ukraine has undertaken to protect EU geographical indications in accordance with the level of protection established by the Agreement (Article 202 "Recognised Geographical Indications"). Annex XXII-A "Geographical Indications - Legislation of the Parties and Elements of Registration and Control" is dedicated to these issues.

Ukraine has an obligation to protect inventions in the field of biotechnology in accordance with the national patent law (Article 221 "Protection of Inventions in the Field of Biotechnology") and to ensure the preservation, protection, improvement and restoration of the quality of the environment, protection of public health, and prudent and rational use of natural resources (Article 361 of the Agreement) in the following areas:

- climate change;
- environmental governance and horizontal issues, including education and training, access to information on environmental issues and decision-making;
- the quality of atmospheric air;
- water quality and management of water resources, including the marine environment;
- waste and resource management;
- nature protection, in particular the preservation and protection of biological and landscape diversity (eco-network);

¹ The Association Agreement between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their Member States, on the other hand. URL: https://za-kon.rada.gov.ua/laws/show/984_011#n2820.

 $^{^{2}}$ Law of Ukraine URL : https://zakon.rada.gov.ua/laws/show/1678-18#Text

³ https://www.me.gov.ua/Documents/List?lang=uk-UA&id=f1bdcc6c-abc8-46dc-9648-ed56b2fcea1c&tag=ImplementatsiiaUgodiProAsotsiatsiiuMizhUkrainoiuTas

- industrial pollution and industrial hazards;
- chemicals;
- genetically modified organisms, including in agriculture;
- noise pollution;
- civil protection, including natural disasters and man-made threats;
- urban environment;
- environmental fees.

The Association Agreement contains Ukraine's commitments to the agricultural sector, in particular Chapter 17 "Agriculture and Rural Development", which provides for the gradual approximation of policies and legislation. Annex XXXVII to Chapter 17 "Agriculture and Rural Development" of Title V "Economic and Sectoral Cooperation" contains EU regulations, directives, decisions, recommendations and notifications that are part of the legal standards that are considered by the Ukrainian side as commitments to gradually approximate legislation on the agricultural sector or product to EU norms. In particular, they relate to quality policy, organic farming, biodiversity, genetically modified cereals, standards for trade in plants, plant seeds, products derived from plants, fruits and vegetables, standards for trade in live animals and animal products.

These and other provisions regarding changes in Ukrainian legislation and new requirements for business activities apply to both large and small agricultural enterprises.

The Cabinet of Ministers of Ukraine continuously monitors the implementation of the Association Agreement⁴ and draws up annual plans for the further implementation of Ukraine's legal framework. The Report on the Implementation of the Association Agreement between Ukraine and the European Union for 2022 states that by the end of the year, Ukraine fulfilled 63% of its commitments related to agriculture. In this area, Ukraine's progress in fulfilling its commitments increased by 9% in 2022.⁵ The process of further implementation of Ukraine's regulatory framework will continue.

The role of small enterprises in the production and export of agricultural products, experience and prospects of trade with the EU

According to the provisions of the Commercial Code of Ukraine (Article 55), small enterprises are those with an average number of employees for the reporting period (calendar year) not exceeding 50 and annual income from any activity not exceeding the amount equivalent to EUR 10 million, determined at the average annual exchange rate of the National Bank of Ukraine6 .

⁴ Reports on the implementation of the Agreement. URL: https://eu-ua.kmu.gov.ua/zvity-pro-vykonannia-uhody-pro-asotsiatsiiu.

⁵ Report on the implementation of the Association Agreement between Ukraine and the European Union for 2022. URL: https://eu-ua.kmu.gov.ua/sites/default/files/inline/files/zvit_pro_vykonannya_ugody_pro_asociaciyu_za_2022_rik.pdf

⁶ Commercial Code of Ukraine. URL: https://zakon.rada.gov.ua/laws/show/436-15#Text

For statistical purposes, small agricultural enterprises were defined as those enterprises whose size did not exceed the thresholds for at least one of the following statistical criteria:

- Area of agricultural land 200 hectares;
- The number of cattle 50 heads;
- The number of pigs 50;
- Number of sheep or goats 50 heads;
- The number of poultry 500 heads;
- Number of employees in agriculture 20 people;
- The amount of income (revenue) from the sale of agricultural products, works and services - 150 thousand UAH ⁷.

According to the State Statistics Service of Ukraine, more than 95% of agricultural enterprises are small, with their number exceeding 44.2 thousand at the end of 2021. The number of small enterprises in agriculture, hunting and related services, including farms, is shown in Table 1.

1. Number of enterprises in agriculture, hunting and related services according to the State Statistics Service of Ukraine, 2019-2021.

Indicators.	2019	2020	2021
Total agricultural enterprises, thousand units	48,3	47,7	46,1
of them are small businesses:			
thousand units	46,3	45,9	44,2
%	95,9	96,1	96,0
Farms, thousand units	45,6	46,9	32,4*

^{*} Number of statistically active farms 8

Farms in Ukraine use only 11.6% of agricultural land (almost 5 million hectares), of which small farms account for 7.2%, or 3.0 million hectares (Table 2).

2. Structure of agricultural land by categories of landowners and land users, 2021

Indicators.	thousand hectares	%
Total land	42726	100
Land of users of other categories	6273	14,7
Land of agricultural enterprises and individuals	36453	85,3

⁷ Order of the State Statistics Committee of Ukraine of 9 November 2011, No. 289. URL: https://za-kon.rada.gov.ua/rada/show/v0289832-11#Text.

⁸ Slobodianyk Ivan. Is farming in Ukraine over? URL: https://www.epravda.com.ua/columns/2023/03/13/697907/

land of agricultural enterprises	20823	49,0
including farms	4969	11,6
of them are large farms	1899	4,4
small farms	3070	7,2
citizens' land	15630	36,5

According to the State Statistics Service of Ukraine, 69% of farms have a farmland area of up to 100 hectares. Of these, 1497 farms (5.6% of the total) have an area of up to 5 hectares. Their average size is 3.4 hectares. 1579 farms have an area of agricultural land from 5.01 to 10 hectares (5.9% of the total), with an average farm size of 7.9 hectares. 2644 farms have an area of agricultural land from 10.01 to 20 hectares (9.9% of the total), with an average farm size of 15.6 hectares. And 8507 farms have an area of agricultural land from 20.01 to 50 hectares (31.9% of the total), with an average farm size of 37.7 hectares (Table 3).

3. Distribution of Ukrainian farms by size of agricultural land in 2021

Groups of farms by	Number of farms		Farmland are	Farmland area of all farms in the group		
area, ha	units	share in the quantity, %.	ha	share in land use, %.		
up to 5	1497	5,6	5039	0,1	3,4	
5,01-10	1579	5,9	12431	0,3	7,9	
10,01-20	2644	9,9	41267	0,8	15,6	
20,01-50	8507	31,9	320298	6,4	37,7	
50,01-100	4137	15,5	296819	6,0	71,7	
100,01-500	5884	22,1	1385234	27,9	235,4	
500,01- 1000	1353	5,1	950984	19,1	702,9	
more than 1000	1028	3,9	1956670	39,4	1903,4	

In general, farms with less than 100 hectares of farmland use only 13.6% of all farmland in the country.

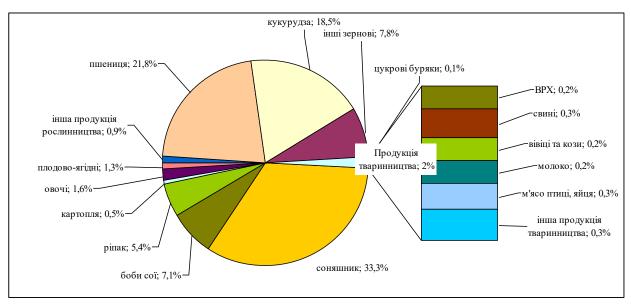
The share of farms in the country's agricultural output is about 13% (Table 4).

4. Agricultural production by farms (in constant prices of 2016), million UAH

Indicators.	2019	2020	2021
Total agricultural production by farms	79053,0	65771,8	90259,5
including crop production	75809,2	62295,1	86420,9
livestock products	3243,8	3476,7	3838,6

Share of farms in agricultural			
production, %, in agricultural	12	11	13
production, %.			

Farms mainly produce crops. The share of livestock products in the structure of agricultural output is only 2% (Figure 1).



Кукурудза - corn, інші зернові – other cereals, цукрові буряки – sugar beet, BPX - cattle, свині - pigs, вівці та кози – sheep and goats, молоко - milk, м'ясо птиці – poultry meat, яйця - eggs, інша продукція тваринництва – other livestock products, соняшник - sunflower, продукція тваринництва – livestock products, боби сої – soya beans, ріпак - rapeseed , картопля - potatoes, овочі - vegetables, плодовоягідні – fruit and berries, інша продукція рослинництва – other crop products, пшениця – wheat.

Figure 1. Income structure of small farms in Ukraine of small farms in Ukraine, 2021

The structure of farm income is dominated by sunflower (33.3%), wheat (21.8%), corn (18.5%) and other cereals (7.8%). At the same time, some small farms are engaged in the production of niche crops that are not a priority for large farms, including vegetables, fruits and berries.

Most small agricultural producers do not export their products themselves. They sell their produce mainly on the domestic market. However, some small farms successfully export their products to the EU. These are, in particular, farms that produce snails (heliculture). For example, the Maxi Snail farm in Kyiv region. In 2021, they exported 20 tonnes of snails to Spain every month. The total snail production per year was 300 tonnes⁹

A few years ago, frog farming was a priority economic activity among farmers. Today, frog farms are operating in Odesa, Zakarpattia, Kyiv, and Kharkiv regions. Most often, these farms supply meat to only one restaurant in the region, but there are farmers who sell these amphibians for export, including to France.

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⁹ Maxi Snail. URL: https://maxisnail.com.ua/.

Honey production is a promising niche product for Ukrainian small farms. Some farms export their products directly. For example, according to the State Customs Service of Ukraine, in 2021, the Koba farm from Odesa region exported 60 tonnes of honey to Slovakia.

For small farmers, growing nuts is a promising option, as they provide the majority of this product. A walnut orchard of 0.5 hectares or more allows you to develop an effective business. Ukraine is the third largest exporter of nuts in the world. The development of nut exports is promoted by the professional industry association Ukrainian Nut Association¹⁰, which unites 136 full members (as of 01.02.2020) and more than 2000 associate members in the country's regions.

Agricultural enterprises and the implementation of sustainable development approaches

The current legislation of Ukraine allows for a variety of types and organisational forms of agricultural enterprises. Among small agricultural enterprises, there are about 100 private enterprises and business partnerships with an average size of up to 90 hectares. However, the main form of agricultural enterprises is farms. They are established and operate in accordance with the Law of Ukraine "On Farming" ¹¹

In Ukraine, it is recognised that small agricultural enterprises are one of the determining factors in preserving the rural settlement network and the village, "preserving the peasantry as the bearer of the Ukrainian identity, culture and spirituality of the nation". The economic ability of a peasant to work effectively on his land is a determining motive for living in rural areas, for the development of villages and rural areas as a living and economic environment. A farmer-peasant who sees the prospects for his farm, receiving sufficient income to reproduce the invested capital, will necessarily care about the welfare of the rural community, its socio-economic development, and the preservation of ecological balance. In this respect, family farming is the most effective.

To stimulate the creation and operation of family farms, the relevant Law of Ukraine was adopted in 2016¹³. The separation of this form of farming is objectively necessary and practically significant. This document is the basis for the development of family farms, as its provisions define the institutional framework and forms, as well as the organisational and legal status of the latter as market participants, and the mechanism of organisational and economic legalisation of small (2 to 20 hectares) peasant farms in the agricultural market system. According to the Law, a farm has the status of a family farm, provided that its business activities involve the labour of members of such a farm,

¹¹ Law of Ukraine "On Farming" URL: https://zakon.rada.gov.ua/laws/show/973-15#Text

¹⁰ NGO "Ukrainian Nut Association" URL: https://ukr-nuts.com.ua/

 $^{^{12}}$ The Law of Ukraine "On the Basic Principles of the State Agrarian Policy for the Period up to 2015" URL : https://zakon.rada.gov.ua/laws/show/2982-15#Text

¹³ The Law of Ukraine "On Amendments to the Law of Ukraine "On Farming" to Stimulate the Establishment and Operation of Family Farms" URL: https://zakon.rada.gov.ua/laws/show/1067-19#Text

who are exclusively members of the same family in accordance with Article 3 of the Family Code of Ukraine.

Family farming provides a direct connection between the worker and the means of production, because they belong to these producers. In this farm, production relations are clear and transparent, and the distribution of the product is carried out by the members of the family farm, who are equal owners of everything that belongs to the family. In a family farm, in the process of production and provision of services, experience and skills in agricultural production are constantly accumulated and transferred from more experienced to less experienced or younger workers - family members.

The establishment and operation of family farms will facilitate:

- strengthening social and economic protection of members of such family farms;
- increasing the readiness and ability of farmers (especially young and middle-aged generations) to run their own family-based businesses;
- creating a more viable system of agricultural service co-operation based on family farms;
- increasing the income of rural residents;
- improving access to existing budget support programmes for the agricultural sector and the introduction of new programmes specifically designed for them;
- strengthening the function of supporting the development of small agricultural producers in the activities of state agricultural regulatory bodies.

In addition to the above, the development of small businesses, in particular family farming, contributes to the implementation of Ukraine's Sustainable Development Goals by 2030. ¹⁴

In particular, Goal 2, "To end hunger, achieve food security, improve nutrition and promote sustainable agriculture", requires a set of measures, including stimulating the creation of small farms, including family farms, improving the legal framework and ensuring favourable economic, organisational and social conditions for their operation.

Goal 8 "To promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" will be achieved by increasing the number of employed people while reducing the share of informal employment through the development of farms, strengthening the motivation for innovation, and technical reequipment of high value-added production. To achieve this goal, it is necessary to improve the business environment, including regulatory conditions, simplify taxes and fees, create a favourable investment climate; provide access to financial services for micro and small enterprises; encourage the introduction of rational business models based on sustainable development and prevent environmental degradation; promote employment

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¹⁴ Decree of the President of Ukraine of 30 September 2019 No. 722/2019 "On the Sustainable Development Goals of Ukraine for the period up to 2030" URL: https://zakon.rada.gov.ua/laws/show/722/2019#Text

and decent work for all women and men, as well as protect labour rights and ensure safe and secure working conditions.

Implementation of Goal 12 "To ensure the transition to sustainable consumption and production patterns" involves strengthening the role of local communities, comprehensive information, education and training on the sustainability of these processes. This will help rural residents and producers to develop appropriate, balanced behaviour and management practices, optimise the system of sanctions for environmental polluters and provide economic incentives for responsible behaviour.

These goals can be achieved through the formation of institutional and legal support for the mechanism of institutionalisation and development of family farms and improvement of the conditions for their agricultural business. To achieve the maximum practical effect and take into account national agricultural peculiarities, each EU country develops its own strategies for sustainable rural development. The availability of such a document is important for Ukraine, where rural areas account for more than 30% of the population and agricultural land accounts for 70% of the country's land fund, and therefore the sustainability of rural development largely ensures the sustainability of the country's socio-economic development as a whole. The draft Concept for the Development of Family Farms for the period up to 2030 has been prepared¹⁵ and the Strategic Directions for Sustainable Rural Development for the period up to 2030¹⁶.

A key component of these documents is the development of small businesses and integrated rural development aimed at ensuring sustainable agricultural production, improving working and living conditions, and preserving the natural environment. The main principles are a combination of nature conservation, meeting basic human needs, achieving equality and social justice, ensuring social development and cultural diversity, and maintaining the integrity of ecosystems. An important prerequisite for achieving them is science and education, which contribute to effective governance, informed decisionmaking, and the development of democracy.

Despite positive institutional, organisational and economic innovations to stimulate the creation of small agricultural enterprises, including family farms, and to increase the motivation of peasants to become official participants in organised markets, recipients of state support for agricultural producers, and active participants in rural development programmes, there is no clear and active trend towards their creation and development of family farming, and the crisis in rural areas is getting worse.

This crisis is manifested, first of all, in a sharp decline in rural employment, rising unemployment and poverty. In search of a way out, rural residents, especially rural youth, are migrating en masse. As a result, the further intensification of these negative effects

¹⁵ Concept for the development of family farms for the period up to 2030: project / [Y.O. Lupenko, M.Y. Malik, O.G. Shpykuliak et al. Kyiv: IAE, 2021. 20 c.

¹⁶ Strategic directions of sustainable development of rural areas for the period up to 2030 / Lupenko Y.O., Malik M.Y., Bulavka O.G. et al. Kyiv: IAE, 2020. 60 c.

leads to depopulation of the rural population, which has now spread throughout Ukraine, a sharp decline in the population in the rural settlement network and the loss of human resources - the basis of agricultural production, and, as a result, to the economic degradation of rural areas in general.

Thus, over the period 2000-2021, the number of settlements in Ukraine decreased by 370 villages, or an average of 18 villages per year. As of the beginning of 2022, Ukraine (excluding the temporarily occupied territory of the Autonomous Republic of Crimea and part of the temporarily occupied territories in Donetsk and Luhansk oblasts) had 12473.6 thousand rural residents, accounting for 30.3% of the country's total population. Compared to 1990, the rural population decreased by 4495.7 thousand people, or 26.5%. At the same time, the rural population in Chernihiv region decreased by almost half - by 49.6%, Sumy region - by 41.5, Khmelnytsky region - by 34.1, Poltava region - by 33.2, and Zhytomyr region - by 32.7%.

Rural mortality is 2.5 times higher than the birth rate. In 2021, the fertility and mortality rates were 7.7 and 19.5 per 1,000 of the population, respectively.

The socio-demographic situation is also complicated by the fact that the potential for population reproduction in rural areas of Ukraine is almost exhausted. As of the beginning of 2022, the number of people over 60 (3048 thousand people) was 1.5 times higher than the number of children under the age of 14 (2075 thousand people). In 2021 alone, this contingent of the rural population decreased by 43 thousand people, and there were 3385.4 thousand people in the most productive reproductive age (20-39 years), which was only 27% of the total rural population of Ukraine. In 2021 alone, this population group (20-39 years old) decreased by 60 thousand people, which amounted to 0.5% of the total rural population, with 909 women for every 1000 men of this age at the beginning of 2022, and 884 women in the 30-34 age group.

In turn, this fact shows that in the absence of able-bodied youth in the rural labour market, the rural working population is at a disadvantage in terms of the quality of the labour force (educational and qualification level, professional skills, health status, etc.) compared to urban residents. As a result, this will significantly complicate the introduction of technical and technological changes in agricultural production and affect labour productivity.¹⁷

The current situation in the domestic rural labour market is worrying, as the striking imbalances in its fundamental factors, the rising unemployment rate among the rural population, the shortage of quality jobs, and the insufficient provision of conditions for decent work pose a potential threat to dynamic social development, economic and food security, and socio-political stability. In 2021, the rural employment rate reached its lowest level since 2000, at 46.7%. This is the lowest rural employment rate in the last 20 years (Fig. 2). In 2021, the unemployment rate among the rural population increased to

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¹⁷ Development of rural areas of Ukraine in the pre-war and war periods. Kyiv: IAE, 2023.

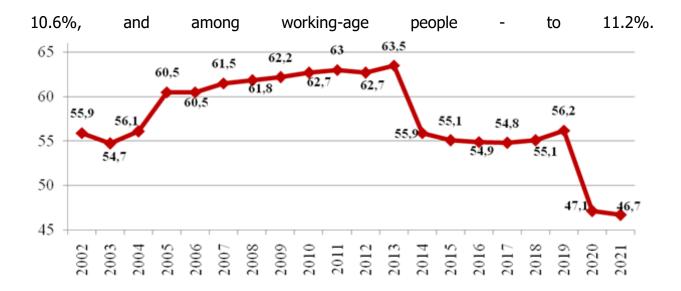


Figure 2. Employment rate of the rural population in Ukraine, %. 18

It is clear that the situation deteriorated significantly during the Russian-Ukrainian war. The lack of official statistics makes it impossible to assess the actual level of employment, but according to expert estimates, the decline is significant, and in some regions, catastrophic.

Due to unemployment and the loss of opportunities for rural residents to exercise their right to work and to be paid proportionately for it, as a result of inflation, constant growth in prices and tariffs for social services, the purchasing power of rural residents is declining, and the consumption of food (in rural families, food alone has accounted for 53-67% of total expenditure for almost two decades), industrial goods and services is decreasing, the cost of living is constantly rising, and their standard of living is deteriorating.

The situation with the provision of social infrastructure facilities in rural areas is complicated. Over the past ten years, the number of secondary schools has decreased by 34.8%. The number of hospitals has decreased by 16.8 times, paramedic and obstetric stations by 41.7%, libraries by 13.6%, and club-type cultural institutions by 8.1%. Although the number of pre-school children's institutions increased by 400 over the period under review, the level of provision remained rather low - 33.6% (Table 5)

5. Dynamics of availability of social infrastructure facilities and their provision in the rural settlement network 19

Social sector facilities	2010	2015	2019	2020	2021	2021, % to 2010
Housing stock: availability, thousand m ² total area	372894	381247	390091	389853	n/a	-

¹⁸ Compiled by N.I. Patyka based on the data of the State Statistics Service of Ukraine, IAE.

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¹⁹ Compiled by O.V. Samofalza on the basis of the State Statistics Service of Ukraine, IAE.

Preschool childcare facilities, units	8566	9133	8948	9203	8966	104,7
General education schools, units	12924	11876	9610	9233	8446	65,3
Paramedic and obstetric stations, units	14934	13205	11821	11278	8708	58,3
Hospitals located in rural areas, units	521	49	31	31	n/a	1
Rural outpatient clinics, units	3452	3833	3819	3842	3548	102,8
Club-type cultural institutions, units	16471	15591	15112	15137	n/a	-
Libraries, units	14870	13710	13184	12853	n/a	-

As of 17 November 2022, 331 territorial communities (22.5%) from nine oblasts were located in the areas of military (combat) operations or under temporary occupation, encirclement (blockade). Of these, 105 are rural territorial communities. In these territories, the rural settlement network is being destroyed. In most of the villages that were or are in the area of active hostilities, the production infrastructure and housing stock have been partially or completely destroyed, housing and communal services are not functioning, and engineering support is in poor condition. As a result, the attractiveness of living in rural areas and the possibility of exercising the right to employment have been almost completely lost. Thus, the current state of rural areas is in a critical phase, which entails the destabilisation of the entire national economic complex.²⁰

As a result of the full-scale war, the agricultural sector of the economy suffered significant losses and business activity declined. In the non-occupied territory, a number of agricultural enterprises have been shut down or partially shut down. The total direct losses of small businesses are estimated at billions of dollars. More than 10 million Ukrainians are IDPs, meaning they have left their homes, including up to 8 million who have gone abroad. Unemployment has increased and wages have fallen in various sectors of the economy, leading to a decline in domestic demand for agricultural products and lower prices.

Agricultural, warehouse, transport, energy, processing and other infrastructure facilities have suffered significant damage. The physical destruction of agricultural enterprises in the hostilities zone resulted in the loss of up to 30% of livestock. As a result of rising prices for fertilisers, fuel and seeds, and the destruction of logistics networks, production costs have increased. Agricultural production is becoming unprofitable and low-margin for many products.

The hostilities have rendered more than 5 million hectares of agricultural land unusable and/or dangerous. According to the Cabinet of Ministers of Ukraine, more than

²⁰ Development of rural areas of Ukraine in the pre-war and war periods. Kyiv: IAE, 2023.

170,000 square kilometres are contaminated with explosive ordnance and potentially dangerous areas that need to be surveyed and further cleaned up. ²¹

The additional economic losses of the industry due to the war in 2022 alone are estimated by the National Research Centre "Institute of Agrarian Economics" to be around \$22 billion, with a 10% to 30% reduction in revenues of agriculture and related sectors.²²

Farmers' assessments of the implementation of sustainable development approaches (survey results)

Communication with farmers - members of the Association of Farmers and Private Landowners of Ukraine - allowed us to make certain generalisations about their situation, current problems and prospects for implementing sustainable development approaches. These conclusions are not representative, but allow us to see the overall picture.

Farmers are concerned about the fate of their village, its inhabitants and the environment. It is a common practice for farmers to finance educational institutions, medical outpatient clinics, and kindergartens. They provide vegetables, fruits, flour, milk and meat products, and other foodstuffs for schools and kindergartens, financially support low-income villagers, and provide transport for funerals and trips to the hospital. For over a year now, they have been providing their products as volunteers for the needs of the Armed Forces of Ukraine.

Farmers express a desire to live in a peaceful, developed, fair, environmentally friendly country and want to leave it to their children and grandchildren. All of them have information (heard, seen, read) about the principles of sustainable development, the Presidential Decree "On the Sustainable Development Goals of Ukraine for the period up to 2030" and are ready to implement sustainable development approaches in the future. However, they are currently focused on the economic issues of survival of their farms and families.

The majority of farmers seek to stabilise their farm's performance at the current level ("to avoid getting worse"). They have such plans for the short and medium term. To do this, they are forced to reduce the number of main and auxiliary farm staff, reduce production volumes, look for partners and cooperate.

More than a quarter of farms are optimistic about the future and plan to expand their business activities, increase their crop areas, look for new markets, etc. Some farmers have reported that they are winding down their operations and/or are preserving their assets to avoid losses. Farmers have debts for wages, fertilisers and crop protection products, transport, etc. This picture is observed in all regions of the country, especially

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22 NSC "Institute of Agrarian Economics" URL: http://iae.org.ua/presscentre/archnews/3489-2022-roku-vtraty-ahrar-noho-sektora-vnaslidok-lohistychnykh-problem-mozhut-syahnuty-blyzko-10-mlrd-dol-ssha-oleksandr-zakharchuk.html

²¹ Denys Bashlyk Mine clearance of agricultural land requires coordination of actions of all participants. URL: https://www.kmu.gov.ua/news/rozminuvannia-silskohospodarskykh-zemel-potrebuie-koordynatsii-dii-usikh-uchasnykiv-denys-bashlyk

the central ones. An important problem for continuing operations is the presence of mines, rockets and unexploded ordnance in the fields. As a result, there have been cases of equipment being blown up in the fields, resulting in injuries and deaths of farmers.

Looking to the long term, most farmers plan to develop their farms, including on the basis of sustainable development, increase production volumes and improve their quality, enter new markets, and find partners in the EU for their exports. To do this, they need advisory and financial assistance. Farmers express their willingness to cooperate with colleagues and other businesses, are ready to share their experience in production, processing and marketing, including exports, know-how, and are ready for change and training, including in the implementation of sustainable development approaches, knowledge of European practices, foreign languages, etc.

In terms of assistance in their activities, farmers noted the need for the following changes - to:

- adopt a legislative decision to grant temporary (for the period of martial law) exemptions from the Group 4 single tax (the tax currently paid by farmers);
- at the state level, make a decision to postpone the introduction of a new tax payment for farmers - a minimum tax burden per hectare - until after the war;
- resolve the problem of blocking tax invoices (automatic unblocking of invoices after a certain period of time) and the state's enforcement of court decisions on payments by the State Treasury to farmers (in particular, VAT refunds);
- extend the duty-free regime with the EU for several years and the ability to export products without quotas;
- simplify and improve state regulation in the field of pesticide and agrochemicals management;
- regulate the relationship between producers and retailers, to establish by law the maximum time limits for deferrals in accordance with the EU Directive (30/60 days) and to expand the powers of the AMCU in this regard;
- introduce a state programme to guarantee war risks on the basis of insurance and provide insurance companies with access to reinsurance to form highquality war risk packages;
- introduce transparent and effective mechanisms for compensating citizens and businesses for lost property;
- improve liability for collaboration, clearly distinguishing between forced entrepreneurship in the occupied territories and aiding and abetting the aggressor state.

Farmers are concerned that if the draft law Nº6013 "On peculiarities of regulation of business activities of certain types of legal entities and their associations in the transitional period" is adopted, it could lead to the actual liquidation of farms.²³

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²³ Verkhovna Rada of Ukraine URL: https://itd.rada.gov.ua/billInfo/Bills/searchResults

Assessment of post-war potential and challenges

Until 2022, when the full-scale war began, agricultural enterprises were delivering 5-6% annual production growth. The record production figures for 2021 are UAH 712.6 billion of gross agricultural output. As a result of the hostilities, farmers found themselves in difficult and sometimes critical conditions. It will take 5-7 years for agricultural enterprises to restore their pre-war potential. Projected production volumes are shown in Table 6.

6. Actual volumes and potential of agricultural production, million tonnes

Products	2019-2021	2022	2028-2030 (forecast)
Cereals and legumes, total	74,5	53,8	86,0-87,0
including wheat	28,4	20,3	32,0-32,5
maize	36,0	26,3	42,1-42,4
barley	8,6	5,6	9,4-9,6
rye	0,4	0,3	0,6
oats	0,5	0,4	0,5
leguminous crops	0,7	0,5	0,6
Soybeans	3,3	3,7	4,0-4,2
Winter rape and kohlseed (spring rape)	2,9	3,3	3,5
Sunflower	14,9	11,1	15,0-15,5
Factory sugar beet	10,0	9,7	11,0
Potatoes	20,8	20,8	21,0
Vegetable crops	9,7	7,7	10,0
Fruit and berry crops	2,1	2,0	2,3

In the post-war recovery, small enterprises will face the most difficult conditions. Accordingly, it will not be them who will show the largest increase in production, but rather medium and large commodity producers. The further development of small agricultural enterprises will be hampered by problems that have not been resolved by 2022. They will remain challenges to post-war recovery. In particular, problems with blocking tax invoices and the state's failure to comply with court decisions on the State Treasury's refund to farmers; difficulty connecting facilities to utility networks; incomplete adaptation of legislation on safety, veterinary and phytosanitary control to EU standards; weak protection of property rights and raiding in the agricultural sector; inadequate storage, transshipment and transportation capacity to meet the growing needs of agricultural producers; and the monopoly of Ukrzaliznytsia. Logistics is a significant challenge for small agricultural enterprises, especially in terms of difficult access to containerised transport, vehicle reservation and wagon supply.

Currently, the main problems of the further functioning of small agricultural enterprises include the following:

- risks associated with the possibility of power outages;
- lack of labour resources, especially skilled workers and machine operators;
- a significant reduction in domestic demand as a result of the spread of poverty and the transition of a large part of the population to the consumption of cheap and low-quality food products;
- problems in relations and settlements with retail chains;
- decreased profitability of agricultural production as a result of rising costs of fuel, mineral fertilisers, plant protection products, etc. and lower prices for agricultural products;
- unpredictable actions of the state regarding possible abrupt changes in legislation.
- contamination of fields with explosive objects (mines, shells and unexploded rockets).

This creates significant obstacles to the implementation of sustainable development approaches after the war.

Suggestions and needs for further sustainable development of small agricultural enterprises

Small enterprises are an important element of further sustainable development of agriculture. They provide employment for owners (farmers) and jobs for rural residents and increase their incomes, strengthen social protection of rural residents, increase revenues to local budgets of rural communities, preserve nature, ecological balance of rural areas and land quality for future generations. By their very nature, small agricultural enterprises are the basis for the preservation of rural settlements (villages). It is their development, primarily in the form of family farms, that the state's agricultural policy should be aimed at.

To do so, the needs of small agricultural enterprises, as discussed above, must be met. In particular, it is necessary to address the chronic problems of the economy and the agricultural sector that farmers point to. 24

For example, to solve the problem of blocking tax invoices (automatic unblocking of invoices after a certain period of time). The state must comply with court decisions to refute the claims of tax authorities and return funds to farmers from the State Treasury. This does not require any laws to be adopted, as the enforcement of court decisions by the state is the basis of the legal system.

Sustainable agricultural development should be supported by judicial reform and the rule of law, as they are the basis for any development in general. And in the agricultural

²⁴ Five arguments that indicate that farming in Ukraine will be finished if the government does not stop. URL: https://zn.ua/ukr/macroeconomics/pjat-arhumentiv-jaki-vkazujut-na-te-shcho-z-fermerstvom-v-ukrajini-bude-pokin-cheno-jakshcho-vlada-ne-zupinitsja.html

sector, they are particularly critical for the development of small businesses, attracting investment, modern technologies and innovation by agricultural enterprises.

Farmers see the key to further sustainable development in ensuring Ukraine's successful European integration and creating an environment favourable to sustainable development. First of all, it is necessary to implement the recommendations of the European Commission related to the EU candidate status (strengthening the fight against corruption at all levels, improving legislation on the judiciary, etc.) and ensure European principles of economic and social functioning. Obstacles to doing business in Ukraine include distrust of the judicial system, corruption, monopolies, unstable legislation, repressive actions of law enforcement agencies, difficulties with tax administration, and incomplete implementation of Ukraine's regulatory framework in line with the requirements of the European Union.

In order to ensure support and development of small agricultural enterprises, we consider it expedient to implement the following measures as to:

- intensification of programmes of financial, material, volunteer, advisory, information and other support for small agricultural enterprises (primarily family farms);
- assistance in the priority restoration of the suitability of arable land and livestock facilities for agricultural activities (demining, repair, etc.);
- development and implementation of programmes to guarantee the physical and economic availability of food products for citizens, especially in the regions of the country affected by the hostilities;
- stimulation of the preservation and increase of cattle, pigs, sheep and goats as a basis for creating new jobs in rural areas and developing small agricultural enterprises.

The following issues should be resolved at the legislative level:

- postponing the introduction of a new tax payment for farmers the minimum tax burden per hectare;
- simplifying and improving the state regulation of pesticides and agrochemicals;
- regulation of the relationship between producers and retailers, to establish by law the maximum time limits for deferrals in accordance with the EU Directive (30/60 days) and to expand the powers of the AMCU in this regard;
- introducing transparent and effective mechanisms for compensating citizens and businesses for lost property;
- implementing a state programme to guarantee war risks on the basis of insurance and providing insurance companies with access to reinsurance to form high-quality war risk packages.

A sustainable development is impossible without complete land clearance. Therefore, the implementation of the action plan for the demining of agricultural land and the successful operation of the National Mine Action Authority must be ensured.

It is important to continue the gradual liberalisation of the agricultural land market and complete all the measures envisaged for the full functioning of the agricultural land market. The land reform should contribute to the development of rural areas and small agricultural enterprises (primarily family farms), increase the capitalisation of land and enterprises, employment of the rural population, and rational and efficient use of land.

It is crucial to extend for several years the temporary trade liberalisation that complements the trade concessions applied to Ukrainian products under the Association Agreement (extension of Regulation (EU) N^{o} 2022/870 of the European Parliament and of the Council of 30 May 2022).

Risks and proposals for their management

The consequences of the war will be actively felt by Ukraine's agricultural sector for the next 3-5 years. The risks caused by the war will remain in the economic, political and environmental spheres. To mitigate these risks, the government should introduce state programmes to guarantee war risks on the basis of insurance and/or state programmes to insure war risks. It is advisable to introduce state support for investments in the form of insurance against war risks.

In order to implement agricultural policy decisions and changes in agricultural policy, it is necessary to have a coordinated position of different stakeholders. Consideration of the consequences for different stakeholders should take place before political decisions are made (modelling results, forecasts, etc.). Therefore, public dialogue is important (including to resolve disagreements between stakeholders).

Small agricultural enterprises (including farms) do not have much experience in promoting their interests and cooperating with government agencies and donor organisations. Therefore, it is necessary to introduce open dialogues and events, involve as many farmers and their representative bodies as possible, and inform small agricultural enterprises about draft agri-policy decisions, possible consequences of their adoption, ways to eliminate negative consequences, etc.

It is advisable to introduce training programmes for managers of small agricultural enterprises and members of farms. Such measures could include special radio and television programmes, conferences, roundtables and other social and professional events aimed at sharing experience and applying modern approaches to sustainable development. Information campaigns should be launched in the media to promote sustainable development and the farmer's way of life and work in agriculture. This could help attract young people to the agricultural sector.

The European market is the most promising market for Ukrainian agri-food products. Therefore, the Ukrainian authorities and the country's leading agricultural associations should take all possible measures to extend Regulation (EU) No 2022/870 of the European Parliament and of the Council of 30 May 2022 on temporary trade liberalisation and the extension of the duty-free regime with the EU.