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THE MAIN CHALLENGE FOR AGRICULTURE IN EU AND UKRAINE

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Relevance of the Topic and Purpose of the Paper One of the most pressing global challenges today is the rapid growth of the world population, which is projected to reach nearly 10 billion by 2050 (FAO, 2017). This increase will significantly raise the demand for food, putting immense pressure on agricultural systems worldwide. Ensuring food security—defined as the availability, accessibility, and quality of food—has therefore become a critical objective both globally and at the regional level.

In this context, both the European Union and Ukraine face unique and overlapping challenges in developing sustainable agricultural systems that not only meet food demands but also mitigate environmental impacts and adapt to climate change. These concerns are at the heart of the EU's Farm to Fork Strategy, as well as Ukraine's efforts to modernize its agri-food sector and align with European standards.

The purpose of this paper is to analyze the main challenges in agriculture faced by the EU and Ukraine, identify similarities and differences, and evaluate potential strategies for sustainable agricultural development.

The key objectives are: To examine the drivers of agricultural transformation in the EU and Ukraine; To assess the environmental and economic challenges both regions face; To explore opportunities for cooperation and alignment in agri-food policy and practice[1].

Relevance of the Topic and Purpose of the Paper. In the face of accelerating global population growth, agriculture stands at the crossroads of one of humanity's most urgent challenges: ensuring food security for all. According to projections by the United Nations, the world population is expected to reach 9.7 billion by 2050 (UN DESA, 2019). This demographic shift will significantly increase global demand for food, placing unprecedented pressure on agricultural systems, natural resources, and the environment.

Food security is no longer solely a question of quantity—it now encompasses sustainability, nutrition, accessibility, and ecological balance. Both the European Union and Ukraine are navigating this complex landscape, where traditional farming methods must evolve to address climate change, biodiversity loss, soil degradation, and the socio-economic dimensions of rural development.

The EU's Farm to Fork Strategy, as part of the European Green Deal, is a cornerstone of Europe's vision for a fair, healthy, and environmentally-friendly food system. In parallel, Ukraine, as a key agricultural producer and strategic partner of the EU, is striving to align with European standards while managing its own set of environmental and policy challenges.

The purpose of this paper is to explore and compare the primary agricultural challenges faced by the EU and Ukraine in the context of food security and sustainable development.

The objectives are: To investigate demographic and environmental factors driving agricultural change; To assess key policy initiatives and regulatory frameworks in the EU and Ukraine; To identify potential synergies and strategies for sustainable agri-food systems [2].

The Role of the Agricultural Sector in Ukraine's Economy Agriculture is one of the key pillars of Ukraine's economy. In recent years, it has accounted for approximately 10% of the national GDP and almost 40% of the country's total exports. Ukraine's vast fertile lands—covering over 41 million hectares, with 79% being arable—position it as a global agricultural powerhouse. The country ranks among the top exporters of corn, sunflower oil, and wheat. However, the full potential of the sector remains underutilized due to systemic inefficiencies and environmental challenges.

Low Land Use Efficiency and Soil Degradation Despite having rich black soils (chernozem), Ukraine suffers from low land use efficiency. Intensive plowing, unsustainable farming practices, and a lack of soil restoration efforts have led to the progressive degradation of agricultural land. Erosion affects more than 30% of arable land, while humus loss and nutrient depletion threaten long-term productivity. The country also has one of the highest land use intensities in the world—around 54% of its territory is used for agriculture—yet the return on land investment is comparatively low.

Lack of Clear Environmental Standards and Regulatory Mechanisms Ukraine's current environmental legislation lacks clarity and enforceable standards related to agriculture. While national strategies formally include goals such as reducing land degradation and promoting organic farming, there are no binding mechanisms for implementation. Key areas remain unregulated, including the control of fertilizer and pesticide use, monitoring of nitrate pollution, and oversight of genetically modified organisms (GMOs). As a result, environmental impacts from farming continue unchecked, undermining both ecosystem health and trade compliance with EU regulations.[3]

Climate Change Adaptation: Strategies and Gaps Ukraine is increasingly vulnerable to climate change, with more frequent droughts, unpredictable weather patterns, and shifting growing seasons. In 2019, the government adopted a Strategy for Climate Change Adaptation in Agriculture, Forestry, Hunting, and Fisheries until 2030. However, this strategy remains largely declarative, with limited funding, institutional capacity, or concrete action plans for implementation. The country also lags behind in integrating climate-smart practices into mainstream agriculture, such as minimum tillage, crop rotation, and drought-resistant crops.

Common and Divergent Challenges for the EU and Ukraine. Both the European Union and Ukraine face significant challenges in aligning agricultural practices with environmental sustainability. The EU's Green Deal and Farm to Fork strategies aim to reduce pesticide use and greenhouse gas emissions, prompting widespread protests from European farmers who feel overwhelmed by stringent regulations and economic pressures . Similarly, Ukrainian agriculture grapples with the dual challenges of wartime disruptions and the need to meet EU environmental standards, which could increase production costs by up to 10% .

Opportunities for Ukraine: Organic Production and Export to the EU. Ukraine possesses vast fertile lands, making it well-suited for organic agriculture. The growing demand for organic products in the EU presents a significant export opportunity. However, challenges such as limited domestic market development and the need for legislative improvements persist . Aligning Ukrainian organic standards with EU regulations could enhance market access and competitiveness.

Potential Threats to Ukrainian Exports Due to EU Environmental Requirements. The EU's stringent environmental regulations pose potential threats to Ukrainian agricultural exports. For instance, the reintroduction of tariffs on certain Ukrainian products like poultry, maize, and sugar, due to environmental and market concerns, could reduce Ukraine's export revenues by approximately €3.5 billion annually . Additionally, compliance with EU environmental standards may increase production costs, potentially undermining Ukraine's agricultural competitiveness

References

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