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FOOD SECURITY ENSURED UNDER THE CONDITIONS OF GLOBAL INSTABILITY IN THE WORLD

Ukraine is one of the guarantees of food security in the world thanks to traditionally strong food exports. Fighting on the territory of Ukraine is the main cause of the global food crisis, which can bring serious political and economic consequences. The agricultural and food sector of Ukraine accounts for almost 10% of GDP. In 2021, Ukrainian food exports amounted to almost 28 billion dollars, including 7 billion euros (\$7.4 billion) to the EU [1].

In terms of export volumes, our country was one of the five largest grain exporters in the world, we exported three-quarters of what we produced, most domestic grain consumption was only 20-25%. Ukraine accounted for 10% of world exports of wheat, over 14% of corn and over 47% of sunflower oil [2].

More than 400 million people in the world depend on food supplies from Ukraine. The war in Ukraine is becoming a threat to global food security, which is particularly acute today in some countries of the MENA region (Egypt, Yemen, Lebanon, Israel, Libya, Lebanon, Tunisia, Morocco, Iraq, Saudi Arabia) and Asian countries (Indonesia, Bangladesh, Pakistan) [1], which is the main buyer of wheat and corn on world markets.

The hostilities on the territory of Ukraine have made changes to the world food supply, and the products that Ukraine cannot supply to the world market have caused a chain reaction: developed countries increase stocks, many food exporting countries, against the background of uncertainty, limit trade. The war affected 25% of world grain trade and caused an increase in world prices [2], food inflation and reduced access to food in countries that import agricultural products from Ukraine.

In general, the export of grain and oilseeds in 2022/2023 MR can be expected at the level of 35 million tons under the conditions that Ukraine will increase the throughput of existing logistics routes, in particular river and railway crossings on the borders with EU countries [1].

Food security is the degree to which a person is provided with ecologically clean and healthy food products. Some definitions of food security state that food security should be sufficient to lead a healthy and active lifestyle. That is why it is very important to respond to its manifestations in time. The issue of food security is dealt with by the World Food Program (WFP), a branch of the United Nations (UN) and the largest humanitarian aid unit in the world. According to its data, about 811 million people in 43 countries of the world are constantly hungry. Of them, 283 million people experience an acute shortage of food, 45 million people are on the brink of starvation [3]. Among the main causes of shortage and lack of food, the following are noted:

- military conflicts, which are still the biggest cause of hunger, as 60 percent of the hungry in the world live in war-torn areas;

- climatic crises, which are accompanied not only by the death of people, but also by the destruction of crops and livelihoods, as well as by the inability of people to feed themselves. In 2020 alone, 30 million people worldwide were forced to leave their homes;

- the economic consequences of COVID-19, which brought acute hunger to a record level;

- rising food costs, as strains on global supply chains have pushed food, fuel and other prices to ten-year highs.

In order to avoid a global food crisis caused by the conduct of hostilities on the territory of Ukraine, the Food and Agricultural Organization of the United Nations recommends that countries take a number of measures [4, 5].

1. To ensure the transparency of the market of agricultural products. This requires strengthening and development of the Agricultural Product Markets Information Support System (AMIS), which is an interagency platform designed to increase the transparency of food markets. It was launched in 2011 by the G20 agriculture ministers in response to the global food price spikes of 2007-2008 and 2010.
2. Provide global financing for food imports to help countries deal with rising food prices. We are talking about meeting the needs exclusively of countries with low and lower than average income levels of citizens, countries that are net importers of food and selected recipients of aid from the International Development Association. Thanks to special conditions, it is possible to automatically stabilize the situation with financing in the future. Those who are eligible for assistance undertake to increase investment in the rural economy, which will reduce their import needs in the future.

3. Countries should refrain from introducing export restrictions, which could lead to a further increase in food prices and undermine confidence in world markets.

4. To find alternative suppliers for countries that are dependent on Ukrainian and Russian agricultural products, to ensure effective use of existing food stocks and to increase the production of their own products.

5. Take measures to prevent the spread of African plague and other diseases of farm animals through the use of advanced management practices. All measures aimed at overcoming the crisis should not exacerbate the situation with a lack of food security, but on the contrary, increase resilience to shocks. Ukraine, as one of the largest exporters of agricultural products in the world, must also take measures aimed at preventing the global food crisis and ensuring food security within the country.

The natural result of the uncertainty with the export of agricultural products was a significant increase in prices for grain products - and this in conditions when prices had already increased significantly during the pandemic. According to the latest WTO statistics, global grain prices rose by 15% in August compared to the previous year (up from 33% in April), and by 18% for wheat (up from 76% in April) [2].

An increase in prices also occurred for fodder, which will lead to an increase in prices for meat and related products. Thus, within the framework of the initiative, 5 million tons of grain and other agricultural products have already been exported from Ukrainian ports, 30% of which were delivered to low-income countries. According to the results of the 12th Ministerial Conference of the WTO, a declaration and a number of decisions were adopted that directly relate to food security [1].

The declaration stipulates that WTO members must refrain from applying export bans and restrictions. And if this cannot be avoided in order to protect the food security of the WTO member itself, then restrictive measures should have the least possible negative impact on international trade, be temporary, targeted, transparent and necessarily notified to the WTO.

As for the decision of the WTO members, it provides that no export bans or restrictions should apply to food products procured for the non-commercial humanitarian purposes of the World Food Programme [1]. Further efforts of the WTO in the field of food security are discussed in two priority directions. In the short term, the WTO intends to improve the mechanisms for notification of various restrictions and measures, as in practice they are not notified immediately, which leads to speculation and price increases.

Thus, the problem of forming a coherent and effective legal mechanism for food security in the world is extremely relevant today. All of the above-mentioned important aspects should be taken into account during the qualitative and systematic updating of the legislation in the field of ensuring food safety, while creating a proper and effective mechanism for ensuring it. Of course, many different mechanisms designed to guarantee food security have been tested by world experience, but it is unlikely that all of them will be uniquely effective in terms of military, integration, environmental and social realities. Normative regulation in this area cannot be fragmented, fragmented and scientifically

unfounded, since it is about ensuring the natural human right to life in terms of the right to sufficient food to maintain normal life, as well as safe and high-quality nutrition.

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ВИКОРИСТАННЯ ЕКОНОМІКО-МАТЕМАТИЧНИХ МЕТОДІВ ТА МОДЕЛЕЙ В УПРАВЛІННІ ПІДПРИЄМСТВОМ

В сучасних умовах спостерігається бурхливий розвиток інформаційних технологій та загострення конкуренції між підприємствами. За таких умов використання економіко-математичних методів та моделей є прогресивним і ефективним засобом який допомагає ефективно керувати підприємством.