в сфере туризма, на сегодняшний день туристско-рекреационные услуги – это одни из наиболее перспективных направлений развития внутреннего туризма в нашей стране. А исследование менталитета для развития туризма крайне важно, и является той задачей, решив которую, отечественный туризм выйдет на новый уровень удовлетворения потребностей населения.

Литература

1. Перспективы развития туризма в современных условиях: мировые тенденции и региональные контексты. – URL: https://www.belarustourism.by/vazhnye-dokumenty/%D0%A1%D0%B1%D0%BE%D1%80%D0%BD%D0%B8%D0%BA%202023.pdf.
2. Туризм как фактор устойчивого развития региона. – URL: https://kpfu.ru/staff_files/F_464010502/TURIZM_KAK_FAKTOR..._2023.pdf.
3. Туризм и рекреация: фундаментальные и прикладные исследования. – URL: https://www.rmat.ru/wyswyg/file/nir/2021-2022/Sbornik.pdf.

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AGRICULTURE AND ITS IMPORTANCE IN THE FORMATION OF THE COUNTRY'S FOOD AND NATIONAL SECURITY

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The article explores the challenges to global food security, including the impacts of climate change, geopolitical risks and the COVID-19 pandemic, which have exacerbated global food insecurity.

Keywords: agriculture, food security, national security.

СЕЛЬСКОЕ ХОЗЯЙСТВО И ЕГО ЗНАЧЕНИЕ В ФОРМИРОВАНИИ ПРОДОВОЛЬСТВЕННОЙ НАЦИОНАЛЬНОЙ БЕЗОПАСНОСТИ СТРАНЫ

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Рассмотрены проблемы глобальной продовольственной безопасности, включая последствия изменения климата, геополитические риски и пандемию COVID-19, которые усугубили глобальную продовольственную безопасность.

Ключевые слова: сельское хозяйство, продовольственная безопасность, национальная безопасность.

Agriculture is an industry that utilizes the laws of growth and development of plants and animals to obtain products through artificial cultivation. Agriculture belongs to the primary level of industry and includes activities such as crop cultivation, animal husbandry, fish farming, and forestry, which are responsible for the supply of staple food and cash crops. The main products of agriculture are food, fiber, energy, and raw materials (e. g., rubber), where food includes grains, vegetables, fruits, edible oils, meat, dairy products, eggs, and mushrooms.

The statistical scope of the Food and Agriculture Organization of the United Nations (FAO) includes 18 categories, including grains, starch tubers, sugar, legumes, oilseeds, vegetables, fruits, meat, dairy products, and aquatic products. Internationally, food security is

widely recognized as "the physical and economic access of all people at all times to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life at the individual, household, national, regional and global levels" [2].

The issue of food security began to enter the global agenda as early as the 1960s and 1970s when FAO convened the first World Food Conference in Rome in 1974 following the successive devastating famines in Africa, South Asia and other regions. Since then, global food production has grown rapidly and international food security tensions have been reduced for a time as developing countries have embarked on green revolutions centered on the promotion of agricultural technology and increased investment in agriculture. According to the FAO report The State of Food Insecurity in the World 2015, the number of hungry people in the world has fallen to 795 million, 216 million fewer than in 1990–1992 and the lowest level in 25 years, while the world's population grew by 1.9 billion during the same period, and is optimistically projected to be one step closer to the Millennium Development Goal (MDG) of halving the prevalence of food insecurity [3]. However, this trend has since begun to reverse, and since 2020, the international food security situation has deteriorated significantly as a result of a combination of new and old risks, such as the global pandemic of the New Crown Disease and the crisis in Ukraine, as well as the rise of geopolitical and security risks and the frequent occurrence of extreme weather events, and has become a central issue in the current global governance arena.

In recent years, the tight balance between global food supply and demand has been worsening. According to the International Grains Council (IGC), although global production of grains (wheat and coarse grains) has hovered at historically high levels in recent years, production has continued to fall short of consumption as a result of faster growth in consumption, and grain stocks have continued to fall, making the situation of supply and demand increasingly tense (table).

Global cereal supply and demand profile, 2019–2023 (in billion tons)

Global Grains	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
Production	20.93	22.28	22.93	22.54	22.94
Consumption	22	22.42	22.97	22.64	23.02
Trade	3.97	4.26	4.24	4.11	4.08
Stocks	6.16	6.02	5.98	5.89	5.8

Source. ICG grain market report.

From 2019/2020 to 2023/2024, the ratio of global ending stocks of cereals to consumption falls from 28 to 25.2 %, suggesting that a number of countries have been drawing on their stocks to support consumption and that expectations of a stabilized international food supply are being buffeted. This is corroborated by data from the United States Department of Agriculture (USDA), which released its World Agricultural Supply and Demand Estimates report, showing that global cereal (wheat, coarse grains and rice) output is expected to grow by 0.8 per cent in the period 2021/2022–2023/2024, but that the overall supply capacity is expected to fall from 3,594 to 3,580 million tons, with stocks dropping from 790 to 770 million tons, and rice stocks from 790 to 770 million tons, with stocks dropping from 790 to 770 million tons, and with rice stocks dropping from 790 to 770 million tons. 770 million tons, with rice stocks falling the most [4]. FAO statistics are more optimistic, showing that global production of cereals (wheat, coarse grains and rice) has been slightly higher than consumption in recent years, and stocks are even expected to reach a record 873 million tons in 2023/2024,

but the ratio of stocks to consumption has also declined slightly, from 30.8 % in 2021/2022 to 30.4 % in 2023/2024. The stock-to-consumption ratio also declined slightly, from 30.8 % in 2021/2022 to 30.4 % in 2023/2024 [5].

Supply tightening, coupled with all kinds of risk of fermentation, gave birth to the global worries about food shortages, strengthened the capital market speculation on food prices. Global food prices started a rapid upward momentum, once surging to a record high. The food price index compiled by the FAO rose from 95.1 points in 2019 to 143.7 points in 2022, far exceeding the level of previous food crises. Fueled by the crisis and conflict in Ukraine, it hit an all-time high of 159.7 points in March 2022, and has since gradually declined; it fell to 127.7 points in April 2023, still at a decade-long price high, and 34.3 % higher than the price level in 2019.1 The FAO Food Price Index (FPI) has also risen from 95.1 points in 2022 to 143.7 points in 2022, well above the level in previous food crises. Grain prices rose even more rapidly, from 96.6 points in 2019 to 154.7 points in 2022, reaching an all-time high of 173.5 points in May 2022 before gradually declining; they fell to 136.1 in April 2023, up 40.9 % from the 2019 price level. As of early 2023, international wheat prices, as measured by CME futures closing prices, had risen 37.6 %, corn 78.3 %, rice 31 %, and soybeans 76.3 % over the past three years [6]. Rising food prices have triggered severe food inflation, which has become an important cause of upward global inflation since 2021. According to the World Bank, food prices in most low-income countries and middle-income countries remained hyperinflationary in February-May 2023, with 66.7 % of low-income countries, 81.4 % of lower-middle-income countries, and 77 % of upper-middle-income countries experiencing food inflation higher than 5 %, and many countries still experiencing double-digit inflation [7]. Meanwhile, rising energy and fertilizer prices have further exacerbated concerns about food security. International fertilizer prices began to soar long before the Ukraine crisis. World Bank data show that in 2021 the price of urea increased 2.63 times and the price of diammonium phosphate doubled. After the outbreak of the Ukrainian crisis, fertilizer prices reached a high in April 2022, with prices for urea, diammonium phosphate, and potassium chloride jumping 24.3, 27.7 and 154 % relative to the pre-crisis period [8]. Soaring natural gas prices in Europe have led to widespread reductions in the production of ammonia (a key feedstock for the production of nitrogen fertilizers). As of October 2022, about 70 % of Europe's ammonia capacity has been cut or manufacturers have closed. As a result, the number of hungry people in the world is rising rapidly. According to FAO in The State of Food Security and Nutrition in the World 2022, the number of hungry people in the world has increased by 150 million since the outbreak of the New Crown Epidemic until 2021, and the incidence of moderate and severe food insecurity has risen sharply globally, with about 2.3 billion people, or nearly 30 per cent of the world's population, moderately or severely food insecure, 350 million more than in 2019, with an increase of 207 million in the number of people who are severely food insecure. increased by 207 million [9]. In its May 2023 Report on the Global Food Crisis, the United Nations noted that some 258 million people in 58 countries face famine and urgently need food aid, a record high since 2017 when statistics were available, with more than 40 percent of the population in five countries – the Democratic Republic of Congo, Ethiopia, Afghanistan, Nigeria, and Yemen [10].

By presenting data on global cereal production, consumption, and stocks, it shows that the balance between supply and demand is tightening, and discusses the far-reaching effects of rising food prices, energy costs, and fertilizer shortages on global food security. The findings support the hypothesis that agriculture is critical to national security and indicate that global food security is facing serious threats due to interrelated factors such as climate change, geopolitical risks and economic instability. The article further notes that the global

food crisis is worsening, especially in low-income countries, where an increasing number of people are facing hunger and food insecurity. To this end, the article recommends increased investment in agricultural technology, strengthened international cooperation, and policies to stabilize food prices and ensure food access.

REFERENCES

1. The State of Food and Agriculture 2021. Making agrifood systems more resilient to shocks and stresses. – Rome : Food and Agriculture Organization of the United Nations, 2021. – DOI10.4060/cb4476en
2. Rome Declaration on World Food Security and World Food Summit Plan of Action // World Food Summit, November 13–17, 1996 / FAO.
3. 《世界饥饿人数降至不足八亿,下一个目标是根除饥饿》 // 联合国粮农组织中文网站. – URL: https://www.fao.org/news/story/zh/item/288492/icode/ (date of access: 27.05.2015).
4. World Agricultural Supply and Demand Estimates // USDA. – 2023. – May 12.
5. FAO Cereal Supply and Demand Brief. – URL: https://www.fao.org/worldfoodsituation/csdb/en/.
6. 数据来源于Investing网站相关期货价格. – URL: https://www.investing.com/commodities/grains.
7. Food Security Update, June 15 2023 / World Bank. – 2023. – p. 2. – URL: https://thedocs.worldbank.org/en/doc/40ebbf38f5a6b68bfc11e5273e1405d4-0090012022/related/Food-Security-Update-LXXXVIIJune-15-2023.pdf.
8. Baffes, J. Fertilizer Prices Ease but Affordability and Availability Issues Linger / J. Baffes, Wee Chian Koh // Blogs. worldbank. org. – 2023. – January 5. – URL: https://blogs.worldbank.org/opendata/fertilizer-prices-easeaffordability-and-availability-issues-linger.
9. 2022年世界粮食安全和营养状况：调整粮食和农业政策，提升健康膳食可负担性–概要 / 粮农组织、农发基金、// 联合国儿童基金会、粮食署和世卫组织. – 2022. – 年10月20日. – 第3页. – URL: https:// www.fao.org/3/cc0640zh/cc0640zh.pdf.
10. The Global Report on Food Crises (GRFC) 2023 // Food Security Information Network. – 2023. – May 2. – 18 p. – URL: https://www.fsinplatform.org/sites/default/files/resources/files/GRFC2023- compressed.pdf.

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ИССЛЕДОВАНИЕ ФАКТОРОВ, ФОРМИРУЮЩИХ СПРОС НА МОЛОЧНУЮ ПРОДУКЦИЮ

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Отмечено, что молочная продукция является основным продуктом питания в нашей стране, однако в других странах спрос на молоко минимальный или отсутствует. Рассмотрены исторические, культурные, климатические, биологические и экономические факторы, определяющие спрос на молоко.

Ключевые слова: молочная продукция, потребление молока, климат, непереносимость лактозы.

INVESTIGATION OF THE FACTORS SHAPING THE DEMAND FOR DAIRY PRODUCTS

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Dairy products are the main food product in our country. But in other countries, the demand for milk is minimal or absent. This article examines the historical, cultural, climatic, biological and economic factors that determine the demand for milk.

Keywords: dairy products, milk consumption, climate, lactose intolerance.