



e-ISSN 3041-2498

Public Management and Policy

<https://www.eu-scientists.com/index.php/pmap>



Consumption Models and Their Role in Shaping Threats to Global Food Security

Ilona Androshchuk  ¹

¹ *Central Ukrainian National Technical University (Ukraine). Associate Professor at the Department of Economics, Management and Commercial Activities, Candidate of Science in Economics, Associate Professor.*

* *Corresponding Author*, e-mail: androshchukio@kntu.kr.ua

ARTICLE INFO

ABSTRACT

Research Article

DOI:

[10.70651/3041-2498/2025.12.18](https://doi.org/10.70651/3041-2498/2025.12.18)

Received:

21 November 2025

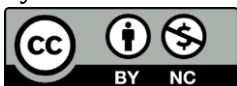
Accepted:

22 December 2025

Published online:

24 December 2025

Copyright © 2025
by author



This is an open access journal and all published articles are licensed under a Creative Commons Attribution—NonCommercial 4.0 International (CC BY-NC 4.0)

The article examines the interrelation between urbanization, globalization, and the transformation of consumption models, which have a direct impact on the state of global food security. It is shown that the rapid growth of urban populations, lifestyle changes, rising income levels, and the development of digital trade platforms have shifted demand from traditional local products to industrially processed mass-produced goods. This trend increases the resource load on agricultural systems, provokes higher consumption of energy-intensive products, and contributes to the reduction of biodiversity. It is emphasized that urbanization creates spatial disparities in access to fresh and safe food, while the standardization of dietary models leads to the loss of cultural diversity in diets and increases national dependence on global supply chains. It has been established that globalization processes generate new risks of food vulnerability through the concentration of production in the hands of transnational corporations controlling a significant share of the world food market. The study highlights that these changes have economic, social, and environmental consequences, including growing food inequality, rising food waste, and the threat to national food sovereignty. The necessity of developing new approaches to food system management is substantiated – those that combine the principles of sustainable development, ecological balance, and social responsibility. The concept of “smart consumption” is proposed as the foundation for transitioning to more resilient production and consumption models that ensure balanced food system development and strengthen global food security. Particular attention is paid to the role of public policy in supporting local food initiatives, stimulating short supply chains, and enhancing consumer food literacy. It is noted that the synergy of government regulation, corporate responsibility, and consumer awareness may become a key factor in shaping a new paradigm of food stability. The results obtained have practical value for the development of sustainable agricultural strategies and the improvement of national food security policies.



KEYWORDS

food security, consumer market, food, urbanisation, globalisation, consumption patterns, sustainable development, food risks, smart consumption, competitiveness.



Моделі споживання та їх роль у формуванні загроз глобальній продовольчій безпеці

Ілона О. Андрощук  ¹

¹ Центральноукраїнський національний технічний університет (Україна). Доцент кафедри економіки, менеджменту та комерційної діяльності, канд. екон. наук, доцент.

* Автор-кореспондент, e-mail: androschchukio@kntu.kr.ua

СТАТТЯ

АНОТАЦІЯ

Дослідницька

DOI:

[10.70651/3041-2498/2025.12.18](https://doi.org/10.70651/3041-2498/2025.12.18)

Отримана:

21.11.2025 р.

Прийнята:

22.12.2025 р.

Опублікована:

24.12.2025 р.

Авторське право

© 2025 автора



Цей твір

ліцензовано на умовах Ліцензії Creative Commons «Із Зазначенням Авторства – Некомерційна 4.0 Міжнародна» (CC BY-NC 4.0).

Стаття досліджує взаємозв'язок між урбанізацією, глобалізацією та трансформацією моделей споживання, які безпосередньо впливають на стан глобальної продовольчої безпеки. Показано, що швидке зростання міського населення, зміни стилю життя, підвищення рівня доходів та розвиток цифрових торгових платформ змістили попит з традиційних місцевих продуктів на промислово оброблені масові товари. Ця тенденція збільшує навантаження на сільськогосподарські системи, провокує підвищене споживання енергомістких продуктів і сприяє зменшенню біорізноманіття. Наголошується, що урбанізація створює просторові диспропорції у доступі до свіжої та безпечної їжі, тоді як стандартизація дієтичних моделей призводить до втрати культурного різноманіття у харчуванні та збільшує залежність національних ринків від глобальних ланцюгів поставок. Встановлено, що процеси глобалізації породжують нові ризики продовольчої вразливості через концентрацію виробництва в руках транснаціональних корпорацій, які контролюють значну частку світового продовольчого ринку. У дослідженні підкреслено, що ці зміни мають економічні, соціальні та екологічні наслідки, включаючи зростання продовольчої нерівності, збільшення обсягів харчових відходів та загрозу національному продовольчому суверенітету. Аргументується необхідність розробки нових підходів до управління продовольчими системами, які поєднують принципи сталого розвитку, екологічного балансу та соціальної відповідальності. Пропонується концепція «розумного споживання» як основа переходу до більш стійких моделей виробництва та споживання, що забезпечують збалансований розвиток продовольчих систем і зміцнення глобальної продовольчої безпеки. Особлива увага приділяється ролі державної політики у підтримці локальних продовольчих ініціатив, стимулюванні коротких ланцюгів постачання та підвищенні рівня харчової грамотності споживачів. Відзначається, що синергія державного регулювання, корпоративної відповідальності та обізнаності споживачів може стати ключовим фактором у формуванні нової парадигми продовольчої стабільності. Отримані результати мають практичне значення для розробки сталих сільськогосподарських стратегій та вдосконалення національних політик продовольчої безпеки.



КЛЮЧОВІ СЛОВА

продовольча безпека, споживчий ринок, продовольство, урбанізація, глобалізація, моделі споживання, сталий розвиток, продовольчі ризики, розумне споживання, конкурентоспроможність.

1. Introduction

In today's environment, global food security is significantly impacted by transformations in food consumption patterns. Changes in food preferences caused by demographic processes, urbanization, rising household incomes and the spread of specialized diets are creating new risks for agri-food systems. stability of global supply chains and reduces the availability of quality food resources.

Taking these changes into account is extremely important from a scientific and practical point of view for the development of adaptive and sustainable food security strategies. On the one hand, there is a need for an in-depth study of the dynamics of consumption patterns against the background of demographic changes, on the other hand, there is a need to develop integrated approaches to the optimization of food systems that would take into account environmental, social and economic factors.

2. Literature Review

In modern scientific research, there is a growing focus on the impact of urbanization on consumption patterns and their implications for global food security. Serhienko [18] emphasizes that urbanization processes increase pressure on natural resources and worsen the ecological balance, which negatively affects the sustainability of food systems. A similar position is held by Marushchak et al [8], who associate urbanization with the growth of consumption of processed foods and the spread of noncommunicable diseases, which indicates a close relationship between food models and food security.

Sheludko [20] considers urbanization as a factor that complicates access to quality food products in cities and requires improvement of supply logistics. In this context, Kovalchuk [7] emphasizes that globalization processes weaken local agricultural systems and biodiversity, undermining food sovereignty. Shcherba [19] notes that the standardization of food models under the influence of transnational corporations leads to a decrease in the variety of products and an increase in geoeconomic risks.

Researchers Kolomiyets and Popadynets [6] substantiate that the development of domestic trade is a key mechanism for transforming consumer demand into real food availability, and its dysfunctions increase systemic risks to food security.

Popadynets et al. [13] In the context of assessing the potential of the internal food market, show that the structure and solvency of consumer demand are key factors in shaping the resilience or vulnerability of food security, especially in the face of crisis shocks. The authors also show [12] that imbalances between production, trade and consumption are transformed into structural threats to food security due to a decrease in the economic availability of food products. Also important is the study [14], where the authors, comparing consumer behavior in the EU countries and Ukraine, prove that the convergence of consumption patterns at different income levels and institutional capacity creates asymmetric threats to food security.

Panukhnyk et al. [15] through modeling of food supply factors show that the transformation of consumer models without proper regulation increases the risks of shortages and price instability in the consumer market. Pruntseva et al. [16] substantiate that investments in the agricultural sector indirectly form threats or sustainability of food security due to the impact on the availability of products, their price stability, and compliance with changed consumption patterns. Also, [17] prove that household savings are a critical mechanism for adapting consumer models to crises, reducing the risks of food insecurity in the face of price volatility and supply chain disruptions. It is argued [10] that the quality of state management of agricultural production determines the ability of the food system to adapt to changes in consumer demand and minimize threats to food security. Instead, Shults et al. [21] identify the factor determinants of the development of the consumer market, proving that changes in consumption patterns under the influence of income, urbanization and infrastructure directly affect the stability of the population's food supply.

Thus, scientific approaches to the analysis of urbanization and globalization changes in consumption indicate the complex, multidisciplinary nature of this problem, the solution of which requires integrated strategies to strengthen global food security.

3. Problem Statement

Despite numerous studies on consumption patterns and their impact on global food security, a number of key issues remain insufficiently understood. Uncertainty about the impact of complex demographic transformations (urbanization, population ageing) on the quality and structure of food patterns, as well as their integration into projections of risks to food systems. Insufficient attention to the relationship between increased animal protein consumption, agroecological challenges and land-use change, which increase competition for limited resources. Lack of a systematic approach to the analysis of the impact of industrialization of animal husbandry on environmental safety and public health beyond traditional food aspects. Gaps in understanding the role of “illusory consumption” and excessive demand as factors of destabilization of food markets and agricultural and financial activities. Underestimation of the impact of globalization and standardization of food models on the reduction of food diversity and the weakening of food sovereignty of national systems. Limited integrated research on the implementation of the concept of “smart consumption” as a mechanism for reducing environmental and social risks in global food security strategies. Identifying and overcoming these gaps in scientific approaches and practical strategies is an urgent task to ensure the resilience of global food systems in the context of new challenges.

The article is aimed at studying the transformations of food consumption patterns in the context of demographic change and urbanization for a comprehensive assessment of risks arising for global food security; identifying the main trends in changing food preferences, the impact of these changes on the structure of agricultural production, environmental burden, logistics systems and socio-economic stability of food systems; substantiation of the role of the concept of “smart consumption” as a tool for mitigating risks and increasing the sustainability of global food security in the long term.

4. Methods and Materials

The methodological basis of the study is an interdisciplinary approach that combines economic, demographic, agroecological and social analysis of transformations of food consumption patterns in the context of urbanization and globalization. approaches to the interpretation of food security, food consumption patterns and their relationship with demographic processes and urbanization shifts, while comparative analysis made it possible to compare the structure of consumption, levels of food security and food policy instruments in countries with different levels of socio-economic development.

To identify structural changes in food preferences and assess their multidimensional consequences, the method of system analysis was used, which made it possible to consider agri-food systems as complex multi-level formations with close relationships between production, consumption, logistics, ecology and socio-economic stability. Elements of risk analysis and a cause-and-effect approach were applied to identify key threats to food security associated with the growth of animal protein consumption, the industrialization of animal husbandry, the spread of processed products and food waste. The information and empirical base of the study was formed by statistical data and analytical materials of international organizations, in particular FAO and WHO, as well as the results of modern scientific research, which, combined with the methods of generalization, scientific interpretation and graphic visualization, provided the validity of conclusions and the possibility of forming practically-oriented recommendations to increase the sustainability of global food systems.

5. Results and Discussion

The main directions of changes in consumption patterns in the context of urbanization significantly affect global food security due to the transition of the population to the consumption of high-calorie processed foods and a decrease in the share of raw agricultural products in the diet. The growth of the urban population is accompanied by demographic, social and economic transformations that change the structure of nutrition: the demand for energy-intensive animal products, fast food and ready-to-eat products is increasing, which require more complex and longer supply chains compared to basic agricultural commodities [18].

Urbanization leads to the emergence of new food preferences and consumption patterns, potentially increasing the vulnerability of urban populations due to unsatisfactory access to fresh and quality products. Changes in the structure of consumption affect the energy balance of agricultural production

and burden the logistics and storage infrastructure, which makes supply systems more complex and unstable [20, p. 122]. The problem of lack of access to fresh food in metropolitan areas is especially acute, which leads to the spread of processed foods high in saturated fats, sugars and salt [8].

All these changes have significant risks for health systems. An increase in the consumption of energy-intensive and processed foods causes an increase in cases of non-communicable diseases, such as obesity, diabetes, cardiovascular diseases, which increases the burden on medical systems and the social sphere in general [20]. This factor further increases the risks to food security due to the growing need for specialized food products and medical and dietary supplies.

Due to shifts in consumer preferences, urban populations are becoming more dependent on complex, energy-consuming supply chains, making them vulnerable to disruptions caused by crises, conflicts, or extreme climate events. Instability in fresh food supply chains can lead to shortages of important nutritional resources, impairing food security and diet quality for urban dwellers

These trends confirm the positions of leading researchers [18], who indicate that urbanization is transforming food systems, generating both new challenges and opportunities for systemic restructuring of food chains. Scientific research highlights the need to build adaptive and resilient logistics systems, improve product quality control, and implement preventive health measures to mitigate the negative effects of these transformations.

It is also important to take into account the upward trend in animal protein consumption, because this is due to the growth of household incomes and, accordingly, the expansion of the diet at the expense of meat, milk and eggs. Such a change is characteristic of economic development and improvement of living standards, when consumers switch to more protein-containing products, which becomes a significant factor in the formation of demand at the global level [1; 11].

It should be noted that the increase in the consumption of animal protein leads to an increase in the need for fodder crops, which requires an increase in the area of agricultural land, especially for grain crops for animal feed. This process intensifies competition for limited land resources and threatens the sustainability of agricultural systems in the face of a shortage of arable land and growing water scarcity [3].

It should be noted that the systematic industrialization of production and the accompanying process of concentration of livestock farms contribute to the displacement of small producers. This is due to economic barriers, the need for significant investments, technological modernization and fierce competition in the market. The reduction of the role of smallholder farmers has not only socio-economic consequences for rural communities, but also creates risks of further monopolization of the food sector, which reduces food security due to dependence on dominant corporations.

Another significant risk factor for global food security is the reorientation towards convenient foods and ready-to-eat foods. We are talking about fast food, frozen foods, packaged foods and fast food. As a result, there is a transformation of the population's diet towards less nutritious, but more affordable and convenient products.

From a scientific point of view, these changes in eating behavior have a number of negative consequences. First, the nutritional value of the diet decreases, which can have systemic consequences for public health, increasing the risks of chronic diseases and reducing overall resistance to stressors. Secondly, the high level of use of finished and processed products contributes to a significant increase in food waste. This is due to the short shelf life of such goods, as well as due to the predominance of packaging, which is often not reusable. According to the Food and Agriculture Organization of the United Nations (FAO), about 1.3 billion tons of food are lost annually in the world, of which a significant part falls on the stage of consumption due to untimely use or unsuitability [9; 22]. This not only increases the negative impact on the environment (greenhouse gases, pollution), but also creates economic losses, which are estimated at trillions of dollars on a global scale.

Third, the growing dependence on transnational corporations (TNCs), which dominate the production and marketing of finished food products, creates geopolitical and economic risks for the food security system. This leads to market concentration, less local autonomy in food production, as well as increased price vulnerability and unavailability of quality food products for vulnerable segments of the population, especially in developing countries.

Global studies focus on the fact that the impact of consumption patterns on food waste is especially significant in urban areas with a high level of urbanization, where the fast pace of life increases the demand for "fast food" [9]. At the same time, insufficient infrastructure for storage, processing and reuse of food resources deepens the problem of waste [5]. Economic losses due to food waste are estimated to reach

significant proportions, highlighting the need to develop policies aimed at reducing losses and increasing the efficiency of food use.

It should be noted that in recent years, specialized diets, in particular vegan, gluten-free and keto diets, have become popular, which is due to the intensification of social trends and the active introduction of technological innovations in the field of nutrition. The spread of individualized dietary regimens is shaping a new paradigm of consumer behavior, where food choices are increasingly based on personal preferences, medical indications, or ethical motivations. For example, the keto diet, which involves reducing carbohydrates and increasing fat, and veganism, which excludes animal products, have become widespread in recent years. In particular, the concept of vegan keto combines these two areas, demonstrating the development of complex and specific eating patterns [23].

From a methodological point of view, the transformation of food consumption patterns has a structural impact on agricultural production, creating new risks for food systems. The growing demand for certain crops, which are the basis of specialized diets (for example, almonds, soybeans, coconut and other specific plant ingredients), causes a shift in the production priorities of the agricultural sector. This, in turn, leads to a decrease in biodiversity in agricultural production, which is critically important for maintaining agroecological balance, as well as to the concentration of production resources in narrow niches, which increases the likelihood of environmental burden and a decrease in the adaptive potential of agricultural systems.

Of particular concern is the intensive cultivation of resource-intensive crops in climate-sensitive regions. Thus, the cultivation of almonds in arid zones is accompanied by a significant water load, which disrupts the water balance and accelerates the processes of soil degradation. Similar threats are associated with the expansion of soybean areas, in particular in South American countries, where there are alarming trends in deforestation and land erosion.

Another important challenge is the growing price volatility in global agricultural markets due to increased demand for certain crops for specialized nutrition. Fluctuations in supply volumes, combined with high sensitivity to climatic and logistical factors, contribute to the formation of price volatility, which destabilizes agricultural markets and complicates access to food products in countries with vulnerable food security. Such price fluctuations create additional barriers for producers, who are forced to adapt to volatile market conditions, and for consumers, especially in regions with low purchasing power.

The growth of food waste is critical for food security, which leads to a decrease in the efficiency of the use of the main resources of the agricultural sector - water, energy, land and labor, which significantly worsens the sustainability of food systems. The environmental burden on the environment is also increasing due to the accumulation of food waste in landfills, which contributes to greenhouse gas emissions, given that food waste generates approximately 8% of anthropogenic CO₂ emissions globally [4]. It should be noted that the environmental component of food waste has become the subject of special attention within the framework of the UN Sustainable Development Goals (Goal 12.3) – halving food waste by 2030 [5].

In addition, in new consumption patterns, there is an unjustified increase in demand, which does not reflect the real level of food use. The so-called “illusory consumption”, which creates a false picture of food availability and reinforces systemic imbalances in the food market [2]. This situation complicates the forecasting and planning of agricultural and financial activities, which can provoke overproduction or, conversely, a shortage of certain goods.

In particular, a study by the University of Michigan indicates that optimizing cold chains can reduce food waste by almost 41%, thereby significantly reducing greenhouse gas emissions and increasing the efficiency of food use [4]. Therefore, it is extremely important to integrate such technological solutions into public policy and local food security management systems.

And finally, globalization is a transnational process that causes the weakening of traditional local food traditions and standards, creating significant risks that threaten the sustainability of food systems at the national and regional levels.

The essence of the changes in the context of the loss of local models lies in the gradual standardization of food tastes and diets due to the transnational distribution of mass food products and services. This process manifests itself in the displacement of local culinary traditions and products by more unified global food products offered by large multinational corporations. Such a transformation leads to a decrease in food diversity, since local products and dishes that have been formed under the influence of regional environmental and cultural factors are less and less likely to be consumed by the majority of the population.

The decrease in food diversity is directly related to the decline in the biodiversity of crops and the disturbance of ecosystems that play the role of the basis of agricultural production. The loss of traditional varieties of plants and animal breeds adapted to specific climatic conditions increases dependence on a narrow range of universal crops and genetically unified feeds. This, in turn, threatens the environmental sustainability of the agricultural sector and increases the vulnerability of the system to external shocks, such as climate change or epidemics [7, p. 54].

An extremely important aspect is the weakening of food sovereignty of states, which consists in the loss of control over their own food resources and policies, when countries are increasingly dependent on imported goods and global supply chains dominated by international corporations. As noted in O. Shcherba's research, standardization of production and marketing of products often ignores regional specifics and needs, which increases political and economic risks of food security, in particular, when global markets are under the influence of geopolitical and economic shocks [19].

Summarizing the study, we have identified the main directions of changes in consumption patterns and the risks associated with them for food security (Fig. 1).

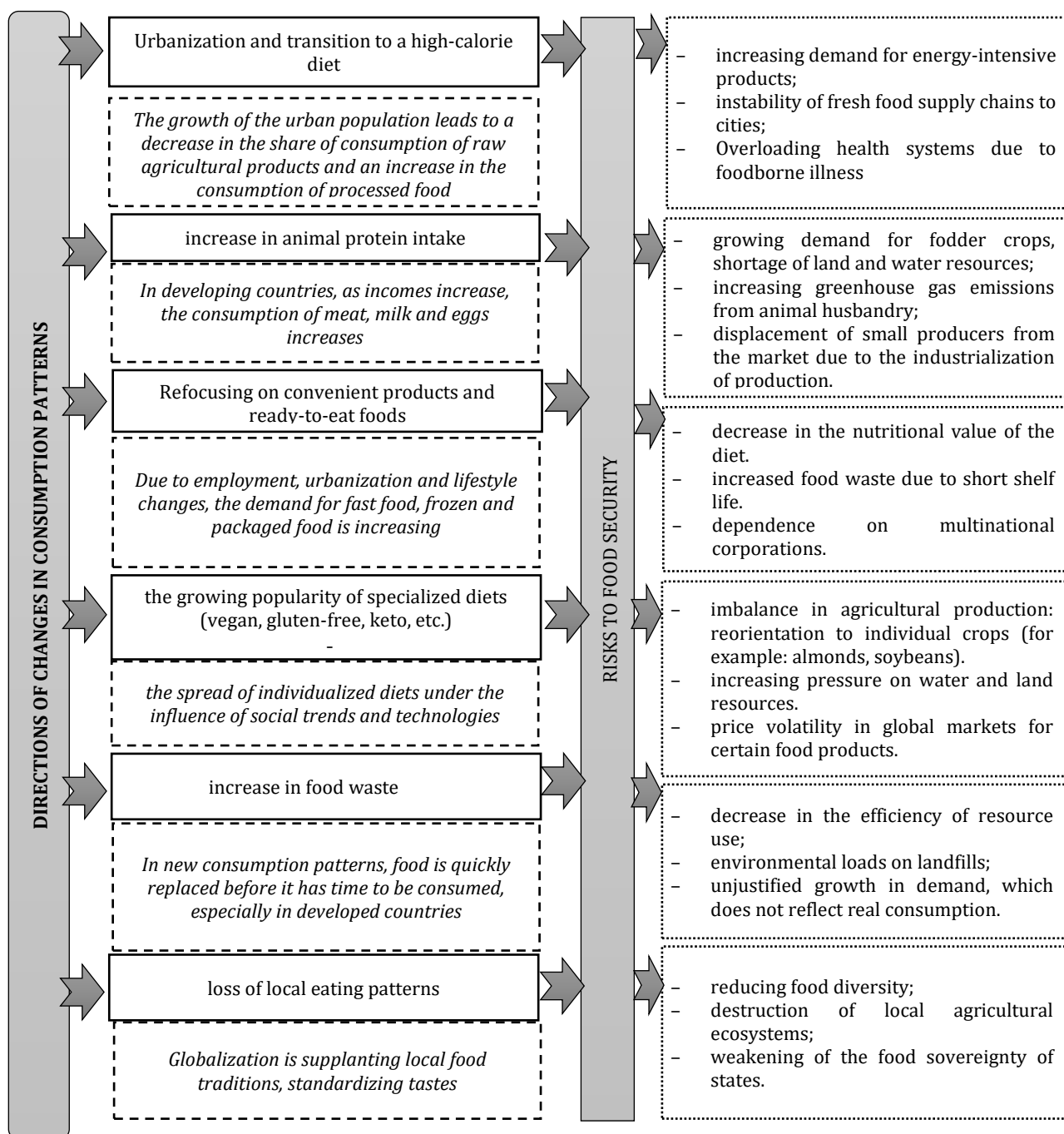


Figure 1. Main directions of changes in consumption patterns and related risks to food security

Source: Proposed by the author.

As we can see, the main directions of changes in consumption patterns and the associated risks to food security indicate the need to rethink approaches to the formation of sustainable food systems. In this aspect, the transition from quantitative supply of products to high-quality, balanced and responsible consumption, which takes into account environmental, social and economic factors, is of particular relevance. This creates the basis for integrating the concept of “smart consumption” into food security strategies as a tool for reducing systemic risks and increasing the resilience of the global food system (Fig. 2).

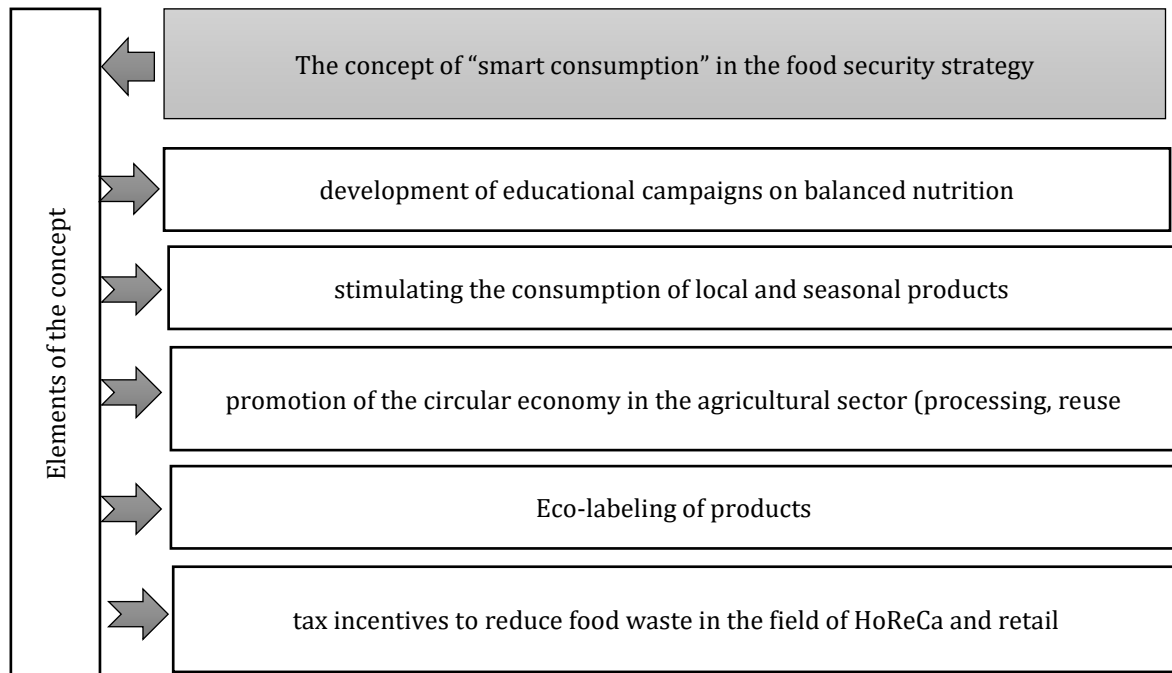


Figure 2. Integration of the concept of “smart consumption” into food security strategies

Source: Proposed by the author.

In our opinion, it is the integration of the concept of “smart consumption” into food security strategies that is an effective tool for reducing the environmental burden, reducing food losses, raising public awareness of sustainable nutrition and forming a responsible attitude to consumer practices. The use of these tools contributes to the formation of sustainable food systems that can adapt to global challenges and ensure food security in the long term.

6. Conclusions

Changes in consumption patterns caused by demographic shifts, urbanization and globalization processes have a systemic impact on global food security, transforming the structure of demand in the direction of increasing consumption of high-calorie, processed and animal products. Such dynamics increase the burden on agri-food chains, complicate logistics processes, increase the resource intensity of production and contribute to the growth of environmental risks, in particular land degradation, water scarcity and an increase in food waste. At the same time, the standardization of food models and the dominance of multinational corporations in global supply chains lead to a reduction in food diversity, a weakening of the role of local producers and a decrease in the food sovereignty of national systems, which increases their vulnerability to external economic, climatic and geopolitical shocks.

The results obtained indicate that the transformation of food preferences of the population has not only a food, but also a socio-economic and medical-ecological dimension, since the increase in the consumption of energy-intensive and processed products is accompanied by a deterioration in the quality of nutrition, the spread of non-communicable diseases and an increase in the burden on health care systems. At the same time, the intensification of livestock farming and the focus on specialized diets create additional risks for agricultural and ecological sustainability, biodiversity and stability of agricultural markets, increasing price volatility and unequal access to food in vulnerable regions. This

justifies the need to move from a quantitative paradigm of food supply to a qualitatively oriented model that takes into account the long-term environmental and social consequences of consumer practices.

In view of the above, it is important to integrate the concept of “smart consumption” as a key tool of state and international policy in the field of food security, which provides for the formation of responsible consumer behavior, reduction of food losses, support for local and small producers, preservation of biodiversity and development of adaptive agricultural and logistics systems. The implementation of such proposals should be accompanied by the introduction of economic incentives, information and educational programs and institutional coordination mechanisms aimed at aligning the interests of producers, consumers and the state, which together will contribute to increasing the sustainability of global food systems in the long term.

References

1. Cacao Mill. (2025). *Top-10 trendiv v industriyi produktiv kharchuvannya ta napojiv 2025 roku* [Top 10 trends in the food and beverage industry in 2025]. <https://cacaomill.com.ua/blog/top-10-trendiv-v-industriji-produktiv-kharchuvannya-ta-napojiv-2025-roku> (in Ukrainian)
2. Filippov, V. Yu., Sahitova, R., Voloshchuk, L. O., & Djek, L. (2023). *Otsinka potочної sytuatsiyi ta mozhlyvostey zapobihannya, skorochennya, pererobky ta povtornogo vykorystannya prodovol'chyykh vtrat i kharchovykh vidhodiv v Ukrayini* [Assessment of the current situation and possibilities for prevention, reduction, recycling, and reuse of food losses and waste in Ukraine]. Odesa-Portsmut: Odeska politehnika; University of Portsmouth. https://economics.net.ua/files/analytics/01_UUT17.pdf (in Ukrainian)
3. HoReCa. (2024). *Do 2050 roku maizhe 70% m'yasa ta moloka zaminyat alternatyvni produkty* [By 2050, almost 70% of meat and milk will be replaced by alternative products]. <https://horeca-ukraine.com/do-2050-roku-majzhe-70-m-jasa-ta-moloka-zaminjat-alternativni-produkti/> (in Ukrainian)
4. Information Space of Sustainable Development. (2024). *Doslidzhennya pokazalo, shcho vdoskonalene oholodzhennya mozhe skorotyty globalni kharchovi vidhody na 41%* [Study showed that improved cooling can reduce global food waste by 41%]. <https://responsiblefuture.com.ua/doslidzhennya-pokazalo-shho-vdoskonalene-oholodzhennya-mozhe-skorotiti-globalni-harchovi-vidhodi-na-41/> (in Ukrainian)
5. International Finance Corporation. (2024). *Otsinka polityk shchodo vtrat ta vidhodiv kharchovykh produktiv v Ukrayini* [Assessment of policies on food losses and waste in Ukraine]. <https://dpss.gov.ua/storage/app/sites/12/uploaded-files/ifc-otsinka-politik-shchodo-vtrat-ta-vidkhodiv-kharchovykh-produktiv-v-ukraini.pdf> (in Ukrainian)
6. Kolomiyets, I., & Popadynets, N. (2016). Trade at Ukrainian internal market: the development mechanism. *Actual Problems of Economics*, 1(175), 69–75. https://www.researchgate.net/publication/303139082_Trade_at_ukrainian_internal_market_The_development_mechanism
7. Kovalchuk, S. Ya. (2017). *Vplyv hlobalizatsiynykh protsesiv na rozvytok silskykh terytoriy u konteksti selozberihayuchoyi modeli ahrarnoho pidpryyemnytstva* [Influence of Globalizatsiynykh Processes on Development of Rural Territories in the Context of Selozberihayuchey Model of Agrarian Enterprise]. *Ekonomika ta suspilstvo*, (8), 52–58. https://economyandsociety.in.ua/journals/8_ukr/9.pdf (in Ukrainian)
8. Marushchak, M. I., Hushchuk, I. V., Dovhalets, L. R., & Mialyuk, O. P. (2024). Urbanizatsiya ta yii vplyv na hlobalne zdorov'ya [Urbanization and its impact on global health]. *Health & Education*, (1). <https://doi.org/10.32782/health-2024.1.7> (in Ukrainian)
9. Moskal, E., & Turchynskiy, B. (2024). Kharchovi vidhody v Polshchi ta sviti. Yak zmenshyty? [Food waste in Poland and the world. How to reduce it?]. *Natu.Care*. <https://natu.care/ua/podiyi/marnuvannya-yizhi> (in Ukrainian)
10. Panukhnyk, O., Popadynets, N., & Fedotova, Y. (2019). Analysis and modeling of factor determinants of food provision at the consumer market of Ukraine. *Global Journal of Environmental Science and Management*, 5(SI), 215–226. <https://doi.org/10.22034/GJESM.2019.05.SI.24>
11. Pig Farming in Ukraine and the World. (2021). 2022: *Svitove vyrobnytstvo tvarynnoho bilka povilno zrostaye* [2022: Global production of animal protein grows slowly]. <https://www.pigua.info/uk/post/news-of-appu/2022-svitove-virobnictvo-tvarinnogo-bilka-povilno-zrostaе-z> (in Ukrainian)
12. Popadynets, N., Irtyshcheva, I., Shymanovska-Dianychn, L., Diugowanets, O., Hryhoruk, I., Kramarenko, I., Husakovska, T., Boiko, Y., Hryshyna, N., Ishchenko, O., Tubaltseva, N., & Archybisova, D. (2021). Evaluation of Domestic Market Development in Ukraine. In D. Russo, T. Ahram, W. Karwowski, G. Di Bucchianico & R. Taiar (Eds.), *Intelligent Human Systems Integration 2021*. IHSI 2021. Advances in Intelligent Systems and Computing, (Vol.1322, pp. 357–363). Springer, Cham. https://doi.org/10.1007/978-3-030-68017-6_53

13. Popadynets, N., Irtysheva, I., Yakhno, T., Diugowanets, O., Yakubiv, V., Kramarenko, I., Sala, D., Stehnei, M., Zapukhlyak, V., & Nahirna, N. (2024). Otsinka potentsialu vnutrishn'oho rynku prodovol'chych tovariv Ukrainy v dovoyenni period [Evaluating the capacity of the domestic food market in Ukraine in the pre-war period]. *Management Theory and Studies for Rural Business and Infrastructure Development*, 46(1), 93–103. <https://doi.org/10.15544/mts.2024.10>
14. Popadynets, N., Shults, S., & Barna, M. (2017). Differences in consumer buying behaviour in consumer markets of the EU member states and Ukraine. *Economic Annals-XXI*, 166(1-2), 26–30. <https://doi.org/10.21003/ea.V166-05>
15. Pruntseva, G., Danylyshyn, B., Popadynets, N., Kopylyuk, O., & Kotsan, I. (2024). Sustainable development in agricultural investments and the food security system. *E3S Web of Conferences*, (567), 01020. <https://doi.org/10.1051/e3sconf/202456701020>
16. Pruntseva, G., Davymuka, S., Yakubiv, V., Vasyltsiv, T., Anhelko, I., Irtysheva, I., Maksymiv, Y., Hryhoruk, I., Bilyk, R., & Popadynets, N. (2021). The analysis of factors affecting household savings as a part of food security management. *International Journal of Data and Network Science*, 5(4), 769–774. <https://doi.org/10.5267/j.ijdns.2021.7.004>
17. Pruntseva, G., Popadynets, N., Barna, M., Stetsiv, I., Stetsiv, I., Yakubiv, V., Shymanovska-Dianych, L., Fedotova, Y., Karpiak, M., & Hryhoruk, I. (2021). The impact of governance on agricultural production as an exclusive factor of the country's food security. *Accounting*, (7), 75–80. <https://doi.org/10.5267/j.ac.2020.10.012>
18. Serhiienko, L. V. (2021). Ekolohichni naslidky urbanizatsiyi v systemi zahroz bezpetsi urbanizovanyh terytoriyam [Environmental consequences of urbanization in the system of security threats to urbanized areas]. *Pravo ta Derzhavne Upravlinnia*, (4), 147–158 <https://doi.org/10.32840/pdu.2021.4.21> (in Ukrainian)
19. Shcherba, O. I. (2020). Spozhyvs'ka povedinka za umov hlobalizatsiyi [Consumer behavior under conditions of globalization]. *Habitus*, 13(1), 15–22. <https://doi.org/10.32843/2663-5208.2020.13-1.2> (in Ukrainian)
20. Sheludko, L. V. (2018). Urbanizatsiya yak vyklyk prodovolchii bezpeci krayiny [Urbanization as a challenge to national food security]. *Ekonomichniy visnyk universytetu*, (39), 121–128. <https://surl.li/rgkbiq> (in Ukrainian)
21. Shults, S., Popadynets, N., Teslya, D., Bilyk, I., Kosar, N., Karpil, O., & Kubrak, N. (2021). Factor determinants of the consumer market development. *Accounting*, 7(3), 563–572. <https://doi.org/10.5267/j.ac.2021.1.002>
22. Sustainable Development for Ukraine. (2020). *Kharchovi vidhody – odyh z naibilshykh vyklykiv sohodennya* [Food waste – one of the greatest challenges today]. <https://sd4ua.org/harchovi-vidhody-odyn-z-naibilshykh-vyklykiv-sogodennya/> (in Ukrainian)
23. The Skinny Food Co. (2022). *Veganska keto-dieta: posibnyk ta porady* [Vegan keto diet: guide and tips]. <https://uk.theskinnyfoodco.com/blogs/health-wellbeing/a-guide-to-vegan-keto-diet> (in Ukrainian)
24. Volyn News. (2021). *Yevropa pochne vidmovliatysia vid miasa z 2025 roku* [Europe will start abandoning meat from 2025]. <https://www.volynnews.com/news/all/yevropa-pochne-vidmovliatysia-vid-miasa-z-2025-roku-The-Guardian/> (in Ukrainian)