### ЕКОНОМІКА І УПРАВЛІННЯ НАЦІОНАЛЬНИММ ГОСПОДАРСТВОМ

UDK 330.34 VahovychI.M., Ph.D. (Econ.), Professor, Vice-rector for scientific work Lutsk National Technical University BodakI.V., Ph.D candidate Lutsk National Technical University

#### THEORETICAL IMPROVED APPROACH TO THE TERM FOOD SECURITY

Food security is one of the components of national security so requires detailed attention to this subject. Proposed theoretical improved approach stresses the integrity of food security system and emphasizes equal attention to economical, social and ecological aspects of food security, which means that only taking into account all three listed spheres, make possible achieving state of food security.

Keywords: food security, economical aspect, social aspect, ecological aspect.

Вахович І.М., Бодак І.В.

## ТЕОРЕТИЧНО УДОСКОНАЛЕНИЙ ПІДХІД ДО ВИЗНАЧЕННЯ ТЕРМІНУ «ПРОДОВОЛЬЧА БЕЗПЕКА»

Продовольча безпека є однією зі складових національної безпеки, тому вимагає детального дослідження. Запропонований теоретичний удосконалений підхід підкреслює цілісність системи продовольчої безпеки, наголошує на однаковій увазі до економічного, соціального та екологічного аспекту продовольчої безпеки, що означає, що тільки з урахуванням усіх трьох перелічених сфер можливо досягнення стану продовольчої безпеки.

Ключові слова: продовольча безпека, економічний аспект, соціальний аспект, екологічний аспект.

Vahovych I.M., Bodak I.V

# ТЕОРЕТИЧЕСКИ УСОВЕРШЕНСТВОВАНЫЙ ПОДХОД К ОПРЕДЕЛЕНИЮ ПОНЯТИЯ «ПРОДОВОЛЬСТВЕННАЯ БЕЗОПАСНОСТЬ»

Продовольственная безопасность является одной из составляющих национальной безопасности, поэтому требует подробного исследования. Предложенный теоретический усовершенствованный подход подчеркивает целостность системы продовольственной безопасности, отмечает одинаковое вниманиек экономическому, социальному и экологическому аспекту продовольственной безопасности, что означает, что только с учетом всех трех перечисленных сфер возможно достижение состояния продовольственной безопасности.

Ключевые слова: продовольственная безопасность, экономический аспект, социальный аспект, экологический аспект.

**Introduction.** The term "food security" was firstly used by the Food and Agriculture Organization - FAO at World Food Summit in Rome in 1996 at which the main issues were achieving food security for all and to an ongoing effort to eradicate hunger in all countries, with an immediate view to reducing the number of undernourished people to half their present level no later than 2015[1]. In 1996 year there were approximately 800 million people throughout the world, and particularly in developing countries, who did not have enough food to meet their basic nutritional needs. In 2009 Food and Agriculture Organization - FAO conducted research that showed that in 2050 the world population will reach 9.1 billion, which is 34 percent more than in 2010, this growth will take place in developing countries. Main social and economic factors that cause growth of demand for food is increasing

population, urbanization and income growth. In order to ensure with food increased urbanized population, food production must increase by 70%. [2]. Ukraine cannot stay away of what is going to happen since the food crisis that is looming on the entire planet would be a threat to all countries and leaders will be those that will be able to ensure their food security and will have large amounts of food for export. Therefore, if we will not take measures to ensure state of food security, we can experience what is food insecurity in our countries.

**Problem statement.** Analyzing the various scientific approaches to the interpretation of the concept of food security, we concluded that scientists treat food security from different aspects, mainly focusing on the selection the economic component of food security, thereby paying less attention to the study of all elements of the term. For example, Kaletnik G.M. and Pchelyanska G.O. determine food security as the ability of the economic system ensure domestic market in foodstuffs and resources required assortment, the required quantity and appropriate quality based on the social structure of the population [3]. Absava L.O. considers that nowadays the concept of food security should be viewed as sufficient level of social and economic stability in society, by other words absence of social stress, determined by providing the population with food [4]. Ternavska I.B. gave its definition of food security as unobstructed process of providing all segments of the population with high-quality food products in accordance with medical science-based standards, taking into account effective demand and affordable prices that characterizes level and quality of life [5]. In our country, there were few attempts to implement legislative project of the Law "Food security of Ukraine", but none of it have not been approved by Supreme Council of Ukraine.

**Main results of the research.** Food security is a task which fulfillment should be resolved comprehensively. From our point of view, food security should be understood as stable providing the population with food at the rational level under normal conditions of life and in case of emergency (for example, war) - at a minimum level, including:

- the ability of the market to offer a sufficient amount of high-quality food (market aspect);

- the ability to purchase food for all social groups (social aspect);

- assuring the high quality products (ecological aspect).



Fig.1. Author's approach to the category of "food security" Source: developed by the author

According to market aspect of food security, attention is accented on ability of the market to offer sufficient amount of food, necessary for providing of vital functions of the population at any time. This aspect of food security is characterized by a sufficient quantity and variety of food available on the market. Important impact on the availability of a sufficient quantity and assortment of food on the market makes level of development agro industrial complex of the country. As confirmation of the importance of this aspect, scientist Berezin O.V. notes that the basis of the agricultural market is production, by domestic producers, sufficient amount of agricultural products, which is the basis for the formation of food security [6]. In other words, the market aspect of food security is an important basis for national security, because first of all in the markets should exist supply of sufficient amount and variety of quality food at any time.

Table 1

Market aspect of food security

Authors	The market aspect in the definition of "food security"	
Kalyetnik G.M.	the ability of the economic system to ensure domestic market in food products and	
Pchelyanska G.O. [3]	resources in the required assortment, the required quantity and the relevant quality	
	based on the social structure of the population	
Ulyanchenko O.V. [7]	state of the economy where at least 70% of basic foods, produces country itself	
Mezenceva N.B. [8]	permanent, stable access to sufficient food for satisfying the needs of the	
	population	
Boiko V.I. [9]	guaranteed supply of food that are necessary for an active and healthy lifestyle	
Urba S.I. [10]	state of the economy, which guarantees stable supply of agricultural raw materials	
	for processing industry and population - a sufficient number of safe and valuable of	
	food, and relative independence from imported raw materials and food	
Shlemko V.T.	level of food security, which guarantees social and political stability in society,	
Binko I.F. [11]	survival and development of the nation, the individual, family, sustainable	
	economic development	
Chorna N.P. [12]	ability of the state by its own production of food to cover domestic needs for food,	
	regardless of the impact of any factors	
Odintsov M.M.	state of the economy in which regardless of the conjuncture of world markets	
Odintsov O.M.	population is guaranteed stable supply of food in a quantity corresponding to the	
Shor O.M. [13]	science-based standards, on the one hand, and create equal conditions for	
	maintaining medical standards at the level of consumption, on the other hand, meet	
	the requirements of advanced reproduction	

Source: developed by the author

Thus, summarizing the theoretical approach to the study material category of food security by using market aspect, it becomes obvious that the scientists interpreted it in at least two senses: narrow and wide. In a narrow sense market aspect is the ability of the country by the domestic production to cover domestic needs for food, regardless of the impact of any factors. In a broad sense, food security interpreted as the ability of the economic system to ensure the domestic market in food products produced both as in the native country and abroad in necessary quantity and appropriate quality based on social structure. Thus, the market aspect of food security is the ability of the national economy, its agroindustrial complex, or by importing of food to ensure a sufficient quantity and range of food products.

Currently in Ukraine there is such a situation that modern market offers a wide range of domestic and imported food products, but not all social groups of populations are able to purchase it. For example retired, unemployed and other unprotected social groups do not have the economic resources to provide itself with nutritional food. This situation leads to the separation of the social aspect of this problem in a separate component.

In the center of social aspect of food security lays ability of the population to purchase the necessary food for all social groups in order to ensure rational nutrition. Notable explorers Conway G. and E. Barber expressed the following statement regarding developing countries: food security, defined as a permanent guarantee the public access to the necessary amounts of food to maintain an active and healthy life is unsecured in developing countries, most due to lack of purchasing power of consumers than instability of global food security [7].

Table 2

Authors	The social aspect in the definition of "food security"
Law "State Support of Agriculture of Ukraine" [15]	protection of vital interests of the man, expressed as a guarantee of unrestricted economic right of access to food in order to maintain its vital activities
FAO [2]	guaranteed access inhabitants of the country and of the region to the necessary food and in quantity required for an active and healthy life
Schekovych O.S. [16]	in solving food issues achieving sustainable socio-economic development of the population and its demographic reproduction
Absava L.O. [4]	lack of social stress, which is caused by insufficient providing the population with food
Hoshovska V.A. [17]	maintaining stability in the food market at availability of basic food for all countries

Social aspect of food security

Source: developed by the author

According to a study conducted by the U.S. government in 2009 among the 66 countries part of the cost on food in the Ukrainian average monthly expenses is 42.1%, and the value of this indicator in Ukraine is second in Europe and fourth in the world after Indonesia (43%), Belarus (43.2%) and Azerbaijan (46.9%). The structure of expenses on food indirectly reflects the level of social prosperity in the country, experts say. The greater the share of expenditure on food, the poorer state. According to the U.S. Government Research and Eurostat, the majority of EU countries have food costs from 10% to 22% [18].

For today the issue of food quality has become more important as imported goods fill Ukrainian markets. Unfortunately, the imported products marked with its poor quality and cause massive poisoning and disease. This approach does not lose its actuality, because significant territory of our country has suffered from the Chernobyl AU. Necessary to provide people with food that would deduce radionuclide for maintaining a healthy life. The problems of Ukrainian food market are the large number of low quality food because of active use of genetically modified organisms, inorganic chemicals, stimulants, flavorings, artificial dyes, recycled products.

Low quality nutrition negatively affected the demographic situation in Ukraine increased mortality and decreased fertility. Since the early 90s Ukraine entered a period of depopulation, which continues until now. The ecological component of food security is to provide people with high quality products as one of the main components of social welfare. Quality of food affects not only the physical well-being, but also the psychological health of the population. Therefore, this aspect deserves attention by scientists, without it the state of food security will not be achieved.

Table 3

Authors	The ecological aspect in the definition of "food security"
Ternavska I.B. [19]	unobstructed process of ensuring all segments of the population with high- quality food according to medical science-based standards, taking into account the prevailing effective demand and affordable prices, which characterizes the level and quality of life is by creating an atmosphere of stability and improve social welfare
Shevchenko O.O. [20]	ecological-economic state of the country in which all citizens are provided with food in the right quantity, range and quality, support the highest level of their physical and mental health, while there are appropriate resources, potential and mechanisms for permanent maintaining of this state, mostly by own forces, regardless of internal and external factors and by maintaining a favorable environment

Ecological aspect of food security

Source: developed by the author

Under safety of food for human consumption understand harmless food, and also support the view of Francois Mania: "safe considered any product that under normal or reasonably foreseeable conditions of use including expiration date, or does not present any risk, or minimal risk that considered as acceptable, and it must comply with the high level of health and safety "[21].

Academic Berezin A.V. also stresses the importance of the ecological approach to ensure the state of food security:"in order to prevent the crisis in the global food system, we should not only establish production and control it according to the needs of society in order to ensure food security, but also promptly identify potential threats in the food sector. Therefore, it is necessary accept strong measures to restore soil fertility, the formation an agricultural policy that was instrumental in restoring of the ecological and economic environment" [22].

**Conclusion.** We consider that food security is a task which fulfillment must be solved comprehensively. In our opinion under term food security should be understood stable providing of population with food on a rational level under normal living conditions and in case of extraordinary situations (ex. war) at minimum, including: ability of the market to offer sufficient quantity of food, opportunity to purchase food for all social groups, ensuring the required quality of goods.

This separation of the components is arbitrary, since food security cannot be seen only as providing high quality food, availability of food on the market or as access to food of all social groups.

#### **References:**

1. Rome Declaration on World Food Security (13-17 November 1996), Available at: http://www.fao.org/docrep/003/w3613e/w3613e00.htm

2. High-Level Experts Forum on "How to Feed the World in 2050" (Rome: 12-13 October 2009), Available at: http://www.fao.org/fileadmin/templates/wsfs/docs/expert\_paper/How\_to\_Feed\_the\_World\_in\_2050.pdf

3. Kaletnik G., Pchelyanska G. Economics AIP, 2011, 7, pp. 36-41.

4. Absava L.O. Ensuring food security in the context of globalization, Available at:<u>http://www.confcontact.com/2009new/1-absava.php</u>(accessed 26 February 2009).

5. Theoretical approach to interpretation of the essence of food safety, Available at:<u>http://conftiapv.at.ua/publ/konf 14 15 grudnja 2011 r/sekcija 5 ekonomichni nauki/teoretichni pidkhodi</u> do\_interpretaciji\_sutnosti\_prodovolchoji\_bezpeki/29-1-0-1420(accessed 15 December 2011).

Berezin O.V., Berezina L.V. Economics AIP, 2011, 7, pp. 107.

7. Ulyanchenko O.V. Agroworld, 2007, 9. pp. 4-8.

8. Mezenceva N.B.Economical and social geography, 2001, pp.150-155.

9. Boiko V.I. Economics AIP, 2006, 1, pp. 60-67.

10. Urba S.I. Scientific Bulletin NLTU Ukraine, 2010, 20, pp.279 – 283

11. Shlemko V.T. Binko I.F. The economic security of Ukraine: the nature and direction of its implementation, 1997, 144 p.

12. Chorna N.P. Economic thought, 2010, 13, pp.207 – 213.

13. Odintsov M.M. Odintsov O.M. Shor O.M. Cherkassy State Technological University, 2009, 24, p.23.

14. Conway G., Barbera E., Afterthecreenrevolutionsusteinableagriculturefordevelopment, E.L., 1990, p.6.

15. Law "State Support of Agriculture of Ukraine" dated 24.06.04, № 1877-IV Berezin A.V., State Program "Development of the Ukrainian village until 2012" from 19.09.2007.

16. Schekovych O.S. Food security of Ukraine: content, structure, reality, threats, Available at:<u>http://www.rusnauka.com/18\_NPM\_2008/Economics/34214.doc.htm</u>.

17. Hoshovska V.A. Strategic panorama, 2003, 2, pp.94-99.

18. Ukrainians are ready to save on vital necessary goods for expensive purchase, Available at:<u>http://vkurse.ua/ua/analytics/ukraincy-gotovy-ekonomit-na-zhiznenno-neobkhodimom.html</u>(accessed 16 February 2012).

19. Ternavska I.B. Food security and it is ensuring on regional level, Available at: <u>http://lib.sumdu.edu.ua/library/DocDescription?doc\_id=289750</u>.

20. Shevchenko O.O. Criteria and indicators for food safety, Available at: <u>http://archive.nbuv.gov.ua/portal/Soc\_Gum/Apdu/2009\_1/doc/2/10.pdf</u>(accessed 04 September 2008).

21. Françoise Mania Consumer safety and market surveillance in the EU, 2004, 36 p.

22. Berezin O.V. Agricultural economics, 2011, 7, p.107.