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Tendencies and Features of the Formation of Food Security in the Ukraine

ABSTRACT

Goal of the study is to identify the trends and characteristics of the formation of food security in the territory of Ukraine. In the article the essential meaning of food security, described the key indicators which are offered which make advisable to assess the level of food security. Indicators of food security of Ukraine are determined according to the Resolution of the Cabinet of Ministers of Ukraine of 05.12.2007 № 1379 "Some questions of food security," which defined level of indicator sufficiency of food consumption, represented regions with the incision consumption of main types of food in 2012, made calculation the dependence on imports of food groups. The main factors that affect the state of the agro-industrial sector and the level of food security in Ukraine are determined. It is concluded that the Concept of food security should cover satisfaction the physiological needs of the population in a protected, multifunctional, high quality food products in accordance to the medical advice, environmental conditions and individual human condition.

Key words: *food security, national and regional food markets, nutrition.*

Introduction. Among the global problems that directly affect the fate of mankind, food problem is allocated. It is determined by the ability of the Earth to feed present and future generations of the world. To some extent this is due to the fact that nutrition is the physiological needs of man. For Ukraine, food security is not only condition of state sovereignty and independence, but also is a factor for supporting national and regional food markets, which provide sufficient levels of balanced nutrition, effective development of foreign food and commodity trade and strengthening of export agriculture.

The relevance of this trend at the stage of entering the market caused by the complexity of solving the food problem, that providing an effective sustainable development of agricultural production at all levels in accordance with market conditions economy and ensure the necessary degree of food security.

The issues of solution food security problem, regional policy and the effectiveness of the food sector were studied by powerful agrarian scientists who have made feasible contribution to the development of theoretical and methodological foundations and applied aspects of the problem, among which are the Ukrainian P. Borschevsky, O. Hudzynskoho, O. Hoychuk, Danylyshyn, M. Dolishnoho, S. Dorohuntsova, R. Ivanuha, A. Lysetskoho, I. Lukinova, M. Palamarchuka, M. Pistuna, D. Preyhera, P. Sabluka, M. Horunzhoho, O. Shpychaka, L. Chernyuk, M. Chumachenko, V. Yurchyshyna and others. Among foreign scientists should be noted V. Ahayeva, L. Abalkina, I. Bohdanova, A. Bohomolova, Z. Ilina, B. Kumahova and others. However, research of food security problem, from the standpoint of the regional aspect in the context of the withdrawal of this problem to the level of world standards, particularly in the new economic conditions, cannot be considered exhausted.

Material and Methods. Methods of economic and statistical analysis, a systematic approach, settlement and structural analysis – during identifying of indicators with sufficient food consumption, studying of processes formations of food security of Ukraine, are used in the work. In the researching the method of identifying key indicators of food security, approved by the Cabinet of Ministers of Ukraine of 05.12.2007 № 1379 "Some issues of food security" is used.

Results and Discussion. According to the definition of the Food and Agricultural Organization (FAO), food security has three main ways to achieve: the desire for self-sufficiency, creating opportunities of systematic procurement of food on the world market and the creation of food reserves (Food and Agriculture Organization of the United Nations).

In public documents and their projects Ukrainian's food safety is a protection of vital interests of human and civil society and the state, which guarantees the physical and economic accessibility and quality of life necessary food for all citizens in accordance to scientifically based range of food items, that is provided food independent of State and supports the stability of food supply of the population (Resolution of the Cabinet of Ministers of Ukraine).

This problem is not new: in 1982 in the Soviet Union had developed and adopted an extensive food program, which was tasked to bring to the high level and to structure the consumption of basic food groups to scientifically based physiological norms (Materials XXVI Congress of the CPSU). Yet today this level of consumption is not only achieved, and even lower in some important food groups than in the mid-1980s. Therefore, the implementation of public policies to ensure food independence and food security is one of the most important economic and social sense components of national security and the basis for continued market transformation in the agricultural sector of Ukraine.

The low level of food consumption is caused by insufficient supply of both agricultural production and poor credit people, especially certain social groups. To support the development of Ukrainian village one of the main problems in Ukraine put the development of agricultural development to ensure food security, achieving a reasonable level food consumption, ensuring the competitiveness of agricultural products and food products on the domestic and foreign markets. It also offers 3 main indicators for which it is advisable to assess the level of food security.

The first of them – is a measure of the adequacy of food consumption, which is determined by the ratio of the actual level of consumption to scientifically based standards for major groups of food products. The second indicator – is the measure of availability

of food intake. Last one is determined by the ratio of the annual cost range of food items that meets scientific standards justified for 1 person, to the annual income per person.

According to the method for determining key indicators of food security, approved by the Cabinet of Ministers of Ukraine of 05.12.2007 № 1379 "Some issues of food security", indicators, which characterized the state of food security (region) are [6]: the energy value of the daily human ration; ration providing to people by the main types of products (bread and bread products, potatoes, vegetables, melons, fruits, and grapes, sugar, oil, meat and meat products, milk and milk products, fish and fish products, eggs); adequacy of supplies of grain in state resources; the economic availability of products differentiation value of food by social groups, market capacity of individual products, food independence for the individual products.

During 2011-2013 in the region energy value of the food ration of man increased to 2969 kcal per day, which exceeds the rational norm by 18.8%. However, exceeding the limits of human caloric intake is not a positive factor because it indicates imbalance food nation, leads to obesity, cardiovascular system, gastrointestinal tract, and others, and, consequently, reducing of life expectancy. There are significant disparities in consumption of certain foods. Animal products are used in insufficient population is likely due to their cost and financial inability of the majority. Less than threshold level for 2011-2013 was the consumption of meat and meat products, milk and dairy products, fish and fish products, fruits, berries, nuts and grapes (Table 1).

Table 1
Indicators of Food Security in Ukraine

№	Indicator, unit of measure	The threshold	2011	2012	2013
1	Daily caloric intake of man, thousand. kcal	not less than 2,5	2,951	2,954	2,969
2	Consumption of meat and meat products (by year / person), kg	not less than 83	51,2	54,4	56,1
	Consumption of milk and milk products (by year / person), kg	not less than 380	204,9	214,9	220,9
4	Consumption of eggs (per year / person), units	not less than 290	310	307	309
5	Consumption of fish and fish products (by year / person), kg	not less than 20	13,4	13,6	14,6
6	Consumption of sugar (per year / person), kg	not less than 38	38,5	37,6	37,1
7	Consumption of oil and other vegetable oils (per year / person), kg	not less than 13	13,7	13,0	13,3
8	Consumption of potato (per year / person), kg	not less than 124	139,3	140,2	135,4
9	Consumption of vegetables and melons (per year / person), kg	not less than 161	162,8	163,4	163,3
10	Consumption of fruits, berries, nuts and grapes (excluding wine) (per year / person), kg	not less than 90	52,6	53,3	56,3
11	The consumption of bread and cereal products (for the year / person), kg	not less than 101	110,4	109,4	108,4
13	Grain production on one person a year, tonnes	not less than 0,8	1,242	1,014	1,386

The optimum situation where actual food consumption by the person during the year corresponds to the rational norm, so the ratio between the actual and rational consumption is one. In 2012 in Ukraine for most of the major food groups were actual consumption at or above the rational norms. Although still a noticeable lag actual consumption of meat and dairy and fish products from sustainable standards in 2012 improved the situation with their consumption of Ukraine (Statement of food security in Ukraine in 2012) (Table 2).

Table 2
Calculation of Indicator of the Adequacy of Food Consumption (Per Person Annually, kg)

	Rational norm (calculations of the Ministry of Health of Ukraine)	Actual consumption in 2012 (State Statistics Service)	Indicator of sufficiency consumption	Довідково: фактичне споживання у 2011 році (дані Державної служби статистики)
Bread and bakery products (in terms of flour)	101,0	109,4	1,08	110,4
Meat and meat products	80,0	54,4	0,68	51,2
Milk and dairy products	380,0	214,9	0,57	204,9
Fish and fish products	20,0	13,6	0,68	13,4
Eggs (pieces)	290	307	1,06	310
Vegetables and melons	161,0	163,4	1,01	162,8
Fruits, berries and grapes	90,0	53,3	0,59	52,6
Potatoes	124,0	140,2	1,13	139,3
Sugar	38,0	37,6	0,99	38,5
Vegetable oil of all kinds	13,0	13,0	1,00	13,7

Actual consumption of the food group "Bread and bakery products", "potato" exceeds any rational norm, which is evidence of imbalance in human nutrition, which tries to ensure their energy needs through more affordable products. Corresponding situation also observed in regions of Ukraine (Table 3) (Statement of food security in Ukraine in 2012).

Table 3
Consumption of Main Food Types in 2012 by Region (According to State Statistics)
(on one Person a Year, Pounds, Pieces)(Official Site of the State Statistics Service of Ukraine)

Region	Food Groups									
	Bread and bakery products	Meat and meat products	Milk and dairy products	Eggs	Fish and fish products	Vegetables and melons	Vegetable oil of all kinds	Sugar	Fruits, berries and grapes	Potatoes
Ukraine	109,4	54,4	214,9	307	13,6	163,4	13,7	37,6	53,3	140,2
Autonomous Republic of Crimea	110,1	56,6	185,6	297	13,2	148,8	13,2	36,1	51,5	123,2
Vinnitsia	122,8	53,0	218,9	318	16,0	174,2	15,2	43,7	54,1	179,0
Volynsk	128,8	52,1	242,1	271	11,9	158,9	12,9	39,4	42,7	186,2
Dnipropetrovsk	102,8	59,6	190,4	324	14,7	167,5	13,9	34,8	62,9	105,9
Donetsk	103,8	66,7	200,5	321	15,0	164,3	14,5	38,4	62,7	116,6
Zhytomyr	123,5	49,3	237,5	321	14,6	148,2	13,9	39,6	47,0	199,7
Zakarpatsky	120,9	49,3	244,8	285	8,1	153,0	12,9	38,6	49,4	134,4
Zaporizhia	102,9	54,4	185,1	311	14,1	172,4	13,2	37,9	50,6	112,3
Ivano-Frankivsk	118,7	41,1	259,9	258	8,3	123,4	12,5	37,5	38,6	187,7
Kiev	85,0	69,4	215,5	340	17,8	160,5	13,9	32,2	70,8	119,4
Kirovohrad	110,2	51,7	200,0	306	11,3	170,8	12,3	37,0	43,0	145,2
Lugansk	112,4	48,7	185,9	301	13,6	156,6	13,7	41,1	43,2	133,3
Lviv	106,0	48,2	226,1	288	10,9	148,0	14,7	36,8	47,9	174,3
Nikolaev	121,2	50,5	230,2	297	16,2	196,6	16,0	43,3	51,6	103,2
Odessa	113,1	46,8	185,4	290	17,7	171,3	14,7	37,2	60,1	102,9
Poltava	118,4	53,7	230,9	338	13,2	196,9	12,3	35,4	54,9	143,4
Rivne	113,3	48,9	239,0	304	10,8	150,9	12,1	41,9	39,4	164,3
Sumy	108,2	45,0	209,4	297	10,0	157,1	12,3	37,2	38,7	186,8
Ternopil	113,2	46,7	246,4	293	9,7	152,1	14,2	32,4	40,9	176,8
Kharkiv	105,1	56,1	227,7	300	11,1	165,1	12,3	34,1	50,4	120,3
Kherson	125,8	49,9	196,2	306	15,6	195,9	13,5	42,7	51,9	142,8
Khmelnitsky	106,7	45,9	240,6	317	9,5	142,5	13,1	33,0	51,5	196,2
Cherkasy	122,3	54,6	233,9	312	16,5	191,1	14,5	47,4	54,0	160,1
Chernivtsi	118,7	42,9	243,9	304	10,6	168,8	13,0	37,2	55,1	150,8
Chernihiv	120,9	46,3	239,1	281	13,2	174,7	13,4	45,4	41,5	170,4

The need for food security requires maintaining an appropriate level of food self-sufficiency, which involves the use of state support for domestic agricultural products and import control measures in order to protect domestic producers from foreign competition. Reliability achieve food security is both sufficient self-supporting food and in availability of funds for their imports to the required volume with minimum potential vulnerability of food security of the population in case of difficulties with the import of food (lack of currency, prices, embargoes, etc.) (Dzhuryk, 2011).

Meeting the needs of people for food, within its purchasing power in 2012, as in previous years, was carried out mainly by domestic products (Table 4).

Table 4
Calculation Dependence on Imports of Food Groups (Thousand Tons)

	Import products in 2012 in terms of the main product (according to the State Statistics Service)	Market capacity in 2012 (according to the State Statistics)	Percentage of import-dependence, %	
			2012	Note: 2011
Bread and bakery products (in terms of flour)	139	4990	2,8	1,7
Meat and meat products	423	2478	17,1	10,4
Milk and dairy products	410	9797	4,2	2,7
Fish and fish products	441	620	71,1	66,7
Eggs (pieces)	69	14020	0,5	0,4
Vegetables and melons	213	7452	2,9	3,8
Fruits, berries and grapes	1171	2432	48,1	48,3
Potatoes	23	6394	0,4	0,6
Sugar	10	1713	0,6	15,3
Vegetable oil of all kinds	231	591	39,1	39,8
with itsunfloweroil	1	450	0,2	0,2

The most vulnerable positions, in terms of dependence on imports positions are “fish and fish products”, “fruit, berries and grapes”, “vegetable oil of all kinds,” the share of imports of these groups in the total consumption is 71.1, respectively; 48.1 and 39.1 percent at 30 percentage threshold criteria for this indicator.

Ensuring food security is largely dependent on the capacity of agricultural sector. Agricultural potential under the “Comprehensive Programmer to support the development of the Ukrainian village for the period till 2015” (Economy AIC) is the main basis for the growth of national income and food security. The agricultural sector provides food security and food independence, forming 17-20% of its gross domestic product.

Conclusions. The presence of both positive and negative trends in the production and consumption of food have a direct impact on the welfare and living standards of the entire population of Ukraine. In this multi-vector field processes inherent in the economy, are all components of national economic complex, but are especially important factors that influence the development of the productive forces of the economic sector, in particular the factors relating to the field of food security.

Solution of food security is impossible without quality assurance and food safety. The concept of food security should cover meet the physiological needs of the population in a protected, multifunctional, high quality food products in accordance with medical advice, environmental conditions and individual human condition. One way to achieve food security is strict compliance with hygiene requirements, process instructions, recipes, modes of processing, storage, transportation, sale of raw materials and finished products. Reducing the volume of agricultural production, failure of storage or sale may result in a number of dangers worn quite threatening. The emergence of food dangers may develop into a large scale phenomena, such as financial instability, economic crisis and exacerbation state of national security. Low efficiency of businesses, layoffs, increased production costs low effective population potential, failure to sales, production of environmentally hazardous or substandard products – this is an incomplete number of factors that affect the development of agriculture and the consequent state of food security country.

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