

Food Provision and the Axiology of Healthy Eating in the Context of Sustainable Socio-Economic Development

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ABSTRACT

In modern conditions, there is an increase in macroeconomic instability, uncertainty and risks in almost all spheres of the national economy. In the field of food production and food supply also. Arrangement of healthy nutrition and food supply for the population is an integral part of a broader food problem, the solution of which makes it possible to ensure the sustainable nature of the socio-economic development of society. The article provides an analysis of the basic principles of arranging a healthy diet of the population and its food supply. The socio-economic, cultural and historical features of catering in Russia, its negative and positive aspects, development trends and prospects for further improvement are revealed. The contribution of specific economists to the study of this problem is shown and the provision is put forward on the need for more consistent use of the theoretical and practical experience accumulated by Russian science in solving the food problem as a whole as a condition for ensuring the sustainable development of the Russian economy.

Keywords: *healthy eating, principles of arranging a healthy diet, food problem, food supply, rational nutrition, sustainable development.*

1. INTRODUCTION

The relevance of the study of the axiological foundations of healthy eating of the population is due not only to significant negative transformations of the external environment (exogenous factor), but also to the weakening of human immunity in an unfavorable technogenic and epidemiological background.

The aim of the study is to identify the basic principles of arranging a healthy eating for the population of the Russian Federation as a condition for ensuring the sustainable nature of socio-economic development and assessing their current state.

2. METHODS AND MATERIALS

The food problem has a rich and controversial history. Even in the pre-revolutionary period, many authors dealt with this problem. The famous treatise *Domostroy* by Sylvester (16th century) can be considered the beginning of the study of food supply in Russia, in which a significant place is given to assessing the food supply of households [1, p. 194 - 204].

Despite the different attitudes of different researchers to this paper and even its negative assessments in Russian historiography (F.I. Buslaev, A.I. Herzen, P.L. Lavrov, N.V. Shchelgunov et al.) in science has developed a completely positive perception of the content of this paper (P.P. Vyazemsky, N.I. Kostomarov, I.S. Nekrasov, S.M. Soloviev et al.) [2, p. 43 - 44].

An important stage in the development of the food problem was the writings of one of the first Russian economists, Ivan Tikhonovich Pososhkov (1652–1726), a contemporary of Peter I, author of the famous work *The Book of Poverty and Wealth* (1724) [3]. Speaking for the limitation of "home wealth", against waste and money-grubbing, I.T. Pososhkov, in order to substantiate the norms of family consumption, he widely attracted the ideas of *Domostroy*, especially its third part, which contains practical recommendations for the "house building" of the Russian patriarchal family [1, p. 43 - 44].

In the eighteenth century, the food problem was dealt with by such Russian economists as E.A. Avdeeva, I.Ya. Wilkins, A.P. Volynsky, S.I. Gagarin, M.G. Pavlov, P.I. Rychkov, Ya.A. Linovsky, S.M. Usov, M.D. Chulkov et al. The range of issues of interest to the named authors ranged from the problems of rational organization of

peasant and landlord farms to rational nutrition, food supply and preparation of food for future use.

In the nineteenth and early twentieth centuries, many authors also dealt with issues of food policy and food security of the population. Among them were such economists as G.I. Baskin, F.A. Batalin, V.V. Bervy-Flerovsky, P.A. Bilderling, K.A. Werner, N.P. Gilyarov - Platonov, V.E. Den, N.A. Kablukov, N.A. Karyshev, K.R. Kacharovskiy, V.A. Kosinsky, N.V. Levitsky, S.I. Maltsev, P.P. Maslov, I.N. Miklashevsky, V.A. Milyutin, B.G. Mikhelson, M.V. Neruchev, A.A. Rybnikov, V.Yu. Skalon, I.A. Stebut, G.A. Studensky, N.N. Sukhanov, V.I. Chaslavsky, A.V. Chayanov, A.N. Chelintsev, B.N. Chernenkov, N.N. Chernenkov, A.A. Chuprov, A.F. Fortunatov, F.A. Shcherbina, S.N. Yuzhakov et al. Their study dealt with the structure of nutrition of different segments of the population, family budgets, food supply, food security, etc.

In general, we can note two main theoretical and methodological approaches in formulation and study of the food problem: broad and narrow. Representatives of the first approach consider the food problem in a broad historical, geopolitical and socio-economic context, identify in its structure a number of specific elements interconnected and characterized by their own dynamics of development (S.M. Bogdanov, V.A. Kasyanenko, E.V. Kovalev, V.P. Korovkin, P.N. Lomakin, Yu.V. Nikulichev et al.). Representatives of the second approach (Zh.M. Ayapova, D.V. Baldov, S.V. Doholyan, O.D. Egorova, M.A. Ibragimov, V.G. Larionov, A.M. Nikulin, E.G. Reshetnikova, T.F. Ryabova, A.N. Semin, S.A. Suslov, I.V. Trotsuk, V.Ya. Uzun, M.V. Fedorov, N.I. Shgaida et al.) focus their attention on specific elements in the structure of the food problem and attach particular importance to the analysis of criteria for assessing their condition and ways of further development.

Regional aspects of the food problem, namely, food supply and organization of nutrition, are considered in the studies of A.A. Alekseenkov, E.N. Antamoshkina, Sh.S. Askerov, V.S. Williamsky, G.V. Kulk, N.N. Lipatov, A.T. Stadnik, I.V. Taranov, L.N. Shapkin et al. In addition, two epistemological horizons for analyzing the problem of food security can be distinguished: global (S.Yu. Korneva, Yu.V. Nikulichev, A.V. Savelyeva, L.S. Revenko et al) and national (B.V. Anisimov, T.A. Belugina, V.A. Maltseva, N.N. Kolchin, O.V. Kosareva, I.A. Krasnyuk, V.F. Lishchenko, O.I. Panteleeva, V.M. Pizengolts, V.N. Polovinkin, L.S. Revenko, O.V. Sycheva, A.B. Fomichev et al.). In foreign references, the food problem and food safety issues were studied by K. Andersrn, B.A. Babock, S.C. Badu J. Brooks O. Canuto, A. E. Cha, J. Coates, A. Evans, J. Granthman, K. Fuglie, R. Herdt, T. Hertel, G. de Kastro, R. Lal, M. McLuhan, M. Parry, A. Strutt, B. Rogers et al.

3. RESULTS AND DISCUSSION

The key stage in solving the food problem is the practical creation of an effective organization of nutrition for the population of the country. Accordingly, it is necessary to adhere to certain principles of arranging a healthy eating.

First, it is about the timely and regular nature of the diet. Depending on the specifics of a particular country, there are different approaches to catering. In Russia, three or even four meals a day are common. However, in some countries two meals a day are accepted. The situation is similar with the regimen (meal time). In our country, the prevailing idea is that eating "at night" before bed is harmful. However, in other countries, eating later is considered quite normal. These differences are explained not only by the difference in time or the mode and nature of the work of people, the schedule of their working day (for example, a long siesta – the time of an afternoon rest in southern countries), but also by their own cultural, religious and other circumstances.

Secondly, a rational and healthy diet presupposes a certain ratio of certain products, depending on the climatic and natural-historical conditions prevailing in a particular country. In northern countries, where the energy consumption of the human body for performing a certain amount of work is significantly higher than that of workers in southern countries, the structure of nutrition is markedly different. Theoretically, it is considered that the ratio of animal and plant food is 1:4 [4, p. 26]. However, in our society, this proportion is often violated, especially in the regions of the Far North, Siberia, the Far East, where working and living conditions are much more severe, which, in fact, requires an increase in the proportion of animal food in the diet of people.

For comparison, in modern India, for example, almost 97 % of the population is vegetarians, and the basis of Indian cuisine is rice. In the southern republics of the former USSR, it was also rice that served as the basis of local cuisine (for example, pilaf in the Central Asian republics). Likewise in European Mediterranean countries, plant foods are the staple of the diet: paella in Spain, pasta in Italy, and etc. Meat dishes in such regions were considered festive (jamon in Spain, lamb leftiko in Greece, and etc.).

A manifestation of destructiveness in the food structure of Russians can be considered the low proportion of fruits, which is largely due to the natural and climatic characteristics of the country. This leads to the fact that some vitamins, organic acids and minerals important for human health enter the body in insufficient quantities, which can cause a decrease in immunity, vitamin deficiency, anemia, dystrophy and a number of other negative phenomena.

In general, the food pyramid of Russians looks like this. It is based on bread, cereals, rice and pasta. Further, in terms of importance and specific gravity in the general

structure of food, there are vegetables and fruits, then - milk and cheeses, meat, poultry, fish, eggs, nuts and beans. At the top of the food pyramid are fats, oils and sweets [4, p. 67]. However, this is a formal model, deviations from which in different regions can be quite significant.

Therefore, determination of the structure and nature of food shall consider not only the need for its calorie content, but also a certain balance of nutrients contained in products.

Third, use of locally sourced products is an essential element of a healthy, balanced and efficient diet. The fascination of consumers with "overseas" products is rather an additional touch to its modern structure. Of course, the exceptions are areas, where it is practically no agriculture or where it is not able, for objective reasons, to provide the local population with the necessary set of products. In all other cases, it is local products and local food raw materials that are and shall serve as the basis for a balanced diet. First of all, due to their natural origin, compliance with local climatic conditions and established food traditions. Vegetables, herbs, potatoes, cereals and oilseeds, root crops and berries of a particular region of the country have a much greater beneficial effect on the body of the local population than imported analogues that have been stored for a long time and subjected to appropriate technological modulations.

Fourth, an important principle of rational healthy nutrition is the principle of complementarity, according to which it is advisable to ensure the presence of such food products in the structure of nutrition of the inhabitants of a particular region, which, in principle, are not produced in this region. Delivery of watermelons, melons, eggplants and other "southern" crops to the central and northern regions of the country is quite normal and useful, since it allows not only to balance and diversify people's nutrition, supplementing them with deficient micronutrients, but also creates the preconditions for further food interregional integration. This, in turn, provides additional employment for the population, an increase in its income, the solution of a number of special issues (for example, in the field of arranging the dietary meals, baby food, vegetarian food, and etc.).

At one time, the ideas of educational protectionism were developed by the German economist F. Liszt, and in Russia these ideas were put into practice by S.Yu. Witte, who even wrote a special article in this regard National Economy and Friedrich List (1889). For the sake of fairness, it is worth noting that protectionist ideas themselves appeared in Russia in the times of Peter the Great. So, A.L. Ordin-Nashchokin drew up a special New Trade Charter (1667), which provided for protectionist measures in Russia's foreign trade. Namely, it provided for the encouragement of domestic producers of food products and restrictions on the import of all kinds of food "delicacies" from the German lands. For example,

home brewing was encouraged and its import from abroad was limited. The same was done with respect to producers of potash, tar, hemp, grain, oil and other goods.

As for the *educational nature of protectionism*, its essence lies in the selectivity and differentiation of measures to protect domestic producers in competition with foreign producers [5, p. 63-64]. In other words, no one was provided with "eternal guarantees" and special advantages unless he tried himself, managed the economy prudently, consumed sparingly and cared about the common good. "He who helps himself, God helps him," said popular wisdom.

Fifth, seasonality plays a special role in arrangement of effective and rational nutrition. There are different, sometimes diametrically opposed opinions here. In accordance with the seasonality in specific regions of the country, one or another food raw material, food is grown and produced. Therefore, seasonal nutrition in some cases is considered natural and effective. Better to eat fresh berries than candied, fresh vegetables than canned, and etc. However, if we remember about the peculiarities of the Russian climate, about long winters, long autumn, and etc., then following the season turns out to be either difficult or generally irrational. Prolonged absence of fresh plant food during the long polar winter, for example, is the cause of diseases such as scurvy. The nature of zoning and regionalization shall also be considered. It is known that in the zone of risky farming, many agricultural crops have a relatively low yield, and the problem of its increase has to be solved using the additional fertilization of the soil, spraying the plants with various kinds of pesticides, and etc. This affects the quality of the product, its storage capacity and does not contribute to a healthy diet.

The problem of genetic modification of food is especially acute. It is fair to say that manufacturers of such products, who widely use artificial preservatives, substitutes, dyes, flavor enhancers, are no more noble than those who use pesticides uncontrollably [4, p. 27].

In this regard, *sixth*, it is worth mentioning the principle of food security. Once this principle in relation to the treatment of patients was formulated by Hippocrates, who literally stated the following: "I will direct the regime of patients to their benefit in accordance with my strength and my understanding, refraining from causing any harm and injustice" [6, p. 406].

The principle of security means precisely the prevention of harm to the consumer from the consumption of a specific good (be it food or a medical service). It was Hippocrates who, for the first time in world history, introduced and defined the concept of "medical nutrition" and "medical fasting". The Greek thinker believed that alternating them among themselves, it is possible to achieve such a state of the organism in which the vital forces will be in maximum harmony. Today, this state is understood as vitality – a state of a stable energetic of the body, in which there is no fatigue.

In relation to food intake, such a tone means the degree of complete saturation, at which overeating does not occur and negative consequences do not occur.

Seventh, another principle of effective and rational nutrition is the combination of food products, with the help of which the consumer receives not only a varied and nutritious diet, but also adapts the products to their individual requirements. To date, the references distinguish different generations of food and, accordingly, different types of food as such: pre-cave (raw food), cave (primarily thermally processed foods), kitchen, process and innovative [4, p. 33-34]. However, one shall not think that each new type of product rejects (denies) the previous one. It is known, for example, that the northern peoples in their diet and now also engage in raw food (using, for example, slices of frozen fish or meat served cold). However, this does not mean that they remain within the pre-cave type of diet. Or, if in a restaurant a consumer ordered a weak (incomplete, primary) roast (*al dente*) steak, it is unlikely to be attributed to the representatives of the cave type of food.

In 2020, Roskachestvo has developed new state food standards (20 new GOSTs), which will replace the previous preliminary national standards (PNST). This will affect such groups of food products as fish and fish products (sprats, crab sticks), pasta and confectionery products (chocolate balls), and etc. GOSTs will be mandatory for those manufacturers who, in the labeling of their products, will indicate that they are produced in compliance with the requirements of the standards. However, the question arises: what will happen to those who will not indicate this? Why should they be allowed not to comply with and indicate the requirements of the standards when releasing substandard (not standardized) products? These issues are still poorly regulated in Russian legislation, which creates opportunities for the appearance on the market of "cave food" and mass food poisoning. The chronicle of such poisonings is impressive. August 10, 2021 at a training camp in the Rostov region, 30 children were poisoned at once. In the train Murmansk - Adler in early August of 2021, 90 children were poisoned at once and were hospitalized. The number of children hospitalized as a result of food poisoning on the train from the Kuban was 87 people. Such cases are vivid evidence of the cave type of food organization.

Eighth, the principle of energy or caloric content plays an important role in formation of a healthy diet. It is known that an adult male needs about 2,500 kcal. per day, an adult woman — 2,000 kcal (according to the National Health Service of Great Britain). Naturally, these are average parameters and they can vary from country to country. There are also special methods for calculating daily calories consumed, for example, the Harris-Benedict formula. However, energy is still a broader concept than caloric content, since it also includes the requirement of equivalence, i.e. full reproduction of the energy expended by the body. It is

clear that representatives of different professions, even if they are three times healthy men and women, spend different amounts of physical, mental and nervous energy in the labor process. Therefore, the official, normative caloric content may not coincide with the one that is objectively necessary for a particular organism. In our opinion, it is precisely the averaging of the caloric value that is one of the most important factors in the total decrease in the immunity of the planet's population and the increase in its susceptibility to various kinds of viruses and microbes. According to the WHO, today there are more than two billion allergy sufferers on the planet. With regard to nutrition, attention shall be paid to such a phenomenon as histamine intolerance (a natural mediator present in the body). Food intolerance to histamine is the cause of many food poisoning, allergic manifestations, and etc.

Foods rich in histamine usually include alcohol, various canned, pickled, and fermented foods, smoked meats, including sausages, ham and others; legumes, including soy, chickpeas, and lentils; aged cheeses; vinegar; yoghurts; salty snacks; sweets that contain preservatives; cocoa and, as a result, chocolate; most of the citrus fruits, as well as pineapples, bananas, strawberries, cherries; green tea; tomatoes, eggplant, spinach; canned fish (tuna, mackerel); some spices (cloves, cinnamon, chili); peanut.

This list is far from complete, but it gives an idea of the degree of danger of energy disturbance in the diet and its possible consequences. Attempts to compensate for violations of the equivalent energy at the expense of various kinds of diets for the most part turn out to be unproductive. First of all, because the weight is quickly lost, it is also quickly gained again. The idea of a chronic caloric deficit underlaid in all diets contradicts the principle of equivalent nutritional energy. It seems that it is legitimate to conclude that it is impossible to lose weight without negative consequences for the body due to "economical nutrition". To do this due to a total imbalance in the nutritional structure (for example, there is so much plant food that it compensates for animal fats, proteins or carbohydrates) is simply impossible.

An imbalance in nutrition may result from the decision of the Russian Ministry of Trade to legalize trade in expired products. According to Vedomosti (issue dated June 26, 2020), some State Duma deputies came up with a similar idea, and the ministry supported this idea. If at present all low-quality and dangerous products for humans are subject to disposal and must be buried, then after adoption of this "innovation", one should expect an exponential growth of food poisoning in the country. Direct transfer of expired products to the poor in our country is prohibited. As a result, annually from 700 thousand tons to 1.6 million tons of food waste end up in city dumps and landfills, where they rot, emitting methane and spreading the stench. In the meantime, a more than controversial initiative is being discussed, manufacturers and retail chains are using cardamom,

anise, calamus, various chemicals to "save" their products on the shelves. They are well aware that no one will reimburse them for losses after the write-off of expired products, and the smell affects the psyche of the consumer. Many entrepreneurs deliberately create the desired scent to attract customers, which in itself is quite competent and useful. However, there are also those who create amber to deceive consumers, for the targeted sale of substandard products. It is possible to drown the mustiness or mold of products in different ways: in the most innocuous case, using an air conditioner; in a radical situation – with the help of flavors, adsorbents, preservatives and dietary supplements. If visitors during a supermarket tour feel the scent of exotic flowers and trees, and their attention is weakened by the noble aromas of ginger and sandalwood, it will be much easier to shove an expired chicken carcass or a slightly wilted (but sprinkled with water) bunch of lettuce into it. Some consumers even have a peculiar complex: it is better to buy "stale" from a company store than normal products from a "homespun" mini-market.

The axiology of modern nutrition is very diverse and differs significantly from its standard type, i.e. from an optimal, rational, effective healthy diet. Nevertheless, implementation of even the principles mentioned above can change the structure and nature of our diet significantly and for the better. Although they say that "a man is digging his own grave with a knife and a fork," in fact, this is not even a metaphor or hyperbole, but just a description of our ill-considered and improper nutrition. Correcting it means finally solving the food problem that began many centuries ago and which, unfortunately, still remains unresolved.

4. CONCLUSION

The formulated principles of healthy eating have become the subject of analysis by many scientists, both in Russia and abroad. Today, the words of our outstanding agricultural economist F.A. Shcherbina that the statistical study of human needs requires distinguishing two of its main features - the types of needs and the amount of needs. If the type of needs characterizes the degree of the historical development of society, then the volume of needs speaks only of the quantitative ratio between its constituent parts [7, p. 351]. When asserting this, F.A. Shcherbina gave the most complete classification of the needs of peasant farms in Russia in the history of agrarian economic science, dividing them into 2 series, 8 departments, 25 classes, 64 groups and 215 rows [7, p. 352-353]. In terms of its significance, this classification could be equated to the periodic table of D.I. Mendeleev in chemistry, however, it was underestimated and forgotten by the subsequent (Soviet) agrarian science, due to its ideological blinkeredness.

As well as the ideas of another prominent Russian economist - agrarian A.A. Kaufman. Namely, the issues of industrial consumption associated with use of food not

for personal needs, but for development of production (for example, for creation of a fodder base for animal husbandry or a seed fund in crop production, and etc.). These aspects of the food problem are no less important than aspects of personal food consumption. A.A. Kaufman reveals the features of such industrial consumption of food raw materials between peasants – land owners and peasants – land leaseholders, between large and small peasant farms, and etc. [6, p. 589, and etc.].

Special attention A.A. Kaufman drew on the influence of fluctuations in yields in arrangement of food supply for the country's population. Referring to the data of other researchers, he noted that such fluctuations (between maximum and minimum) wheat yield, for example, are 100:131 in England, and 100:238 in Russia. As a result, English farms, even with the worst harvest, get only a quarter less than with the best one, and in Russia – 3.5 times less than with the best one [8, p. 609]. This circumstance is precisely one of the factors in the growth of the severity of the food problem in our country. Considering the peculiarities of the industrial consumption of wheat (grain for seeds), A.A. Kaufman cites interesting data: if in Denmark, for example, the remainder of bread, minus seeds, in the first decade of the twentieth century was 12 hectoliters, in Russia it was only 5.4 hectoliters. In other words, much more harvested wheat was used for seeds in our country than in Denmark (as well as in Sweden, France, and etc.). This served as another additional factor in the severity of the food problem in our country.

Using the historical experience of Russian economic science to ensure sustainable rates of development of the food industry and food supply for the population of our country in conditions of macroeconomic turbulence makes it possible to clarify, concretize and deepen ideas about the content and nature of food supply in Russia, to identify various direct and indirect factors affecting economy and culture of food production and consumption.

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