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«Green Economy» As an Approach to Ensuring Integral Security and Quality of Students Nutrition.

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ABSTRACT

This article discusses the symbiotic link between «green economy» and the security of students' nutrition. Nowadays, one of the major problems of the post-industrial countries is to face two radically opposed challenges: providing new opportunities for human development and reducing the adverse environmental impact. Human interaction with the environment is so complex that only the ecological approach allows to understand the whole range of its factors. The ecological approach dictates a new interpretation of the "economic growth" concept, the identification of environmental needs and interests causing a perceived need to find new directions and guidelines for the development. The level of economic growth is from now on primarily determined not by quantitative criteria, but, first of all, by quality of life. Nutrition is one of the most important factors of human -environment relationship. Healthy eating results in a normal physical and mental development, it helps to prevent diseases and aids the body to tackle adverse environmental factors of physical, chemical and biological nature. Unbalanced nutrition is the main cause of the most common diseases, while a healthy diet is able to provide their primary prevention. Nutritional status and the structure of nutrition combined with an active lifestyle are among the chief factors determining the health of the population.

Keywords: modern society, risks, food security, nutrition, food crops, quality, health, student.

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DISCUSSION

At present, the term “green economy” has become very popular. After the "Rio + 20" summit hosted by Brazil in 2012, many heads of States decided that the "green economy" is one of the most important factors for the further development of their countries. But what does the "green economy" have to offer and what are the future directions of its development in the world? In modern society, the concept of "green economy" is understood in different ways. Some think that the "green economy" is a new branch of national economy, which serves to improve the environmental conditions in a country [1]. Others consider it to be the new advancement in technologies developed to protect the environment [2]. It is also believed that the "green economy" is a new stage of economic development aimed at the creation of environmentally friendly food products [3].

All these concepts are, in fact, close to the proper meaning of the "green economy": economy focused on preserving the well-being of society through more effective and wise natural resources and environmental management and ensuring the safety and quality of food, as well as the return of final products in a new production cycle [4]. The main task of the "green" economy is a saving and effective use of depleting resources, such as oil, coal, gas, etc., and a sustainable consumption of renewable resources [5]. According to experts the development of "green economy" will allow to avoid serious environmental problems which have affected many industrialized countries in the world.

Let us take a look at the chief developmental directions of “green economy”.

The main line of action is, of course, the promotion of renewable energy. Oil and gas are still the most important energy resources, but the world will evidently run out of them one day.

Other major guideline of green economy is the promotion of organic farming, which rejects the synthetic fertilizers, such as feed additives and pesticides, and welcomes only the use of organic fertilizer to achieve larger crops output [6]. A serious threat to national and global food security is the limited availability of plant and animal genetic resources. In our opinion, enhancing of biodiversity in the Russian Federation is possible only by using modern biotechnological methods which facilitate the evaluation of genetic diversity and introduce in plant breeding the genetic material of wild species as a source of new genes, resistant to diseases and adverse environmental conditions. The contemporary plant breeding should be based on the use of regulatory genes that influence plant growth and development. The application of genomic selection methods will help to develop new crop varieties in a short period of time, and marker-assisted seed selection will allow to rebuild the seed production system on a brand new level.

In animal husbandry, the most urgent tasks are systematization of species and the development of rare species genetic material low-temperature storage and recovery techniques. The introduction of genomic selection in animal breeding in Russia could lead to a considerable livestock improvement and growth. The livestock productivity is also assumed to increase with the use of research methods developed for metagenome of microflora.

Although the Russian authorities have started to examine the problem of water resources systematization, the progress towards that end is slow and the modern techniques are not commonly used, despite the high level of interest in maritime features which should become a subject for universal food source and living world evolution studies. The research on migration and reproduction of commercial fish is of critical importance as well as the creation of genomic regions that will guarantee the adaptation to the environment. This will ensure an efficient use of all the genetic diversity of populations for successful breeding in the given climatic conditions. These problems should be addressed first.

All this will help to ensure the food security and a complex safety of food production for the population, which is important for the younger generation (pupils and students), while not harming the natural resources [7].

Nutrition is one of the most important factors that bind man to the environment. Healthy food leads to normal physical and mental development, it helps to prevent disease and helps the body to endure adverse environmental factors. Unbalanced nutrition is the main cause of the most common diseases, while a healthy

diet can provide them with primary prevention [8]. An important role of optimal nutrition products considered reducing the proportion of drug effects by increasing the range of food using a variety of plants and animals as sources of essential biologically active substances.

Nutrition is one of the most important factors of human -environment relationship [9]. Healthy eating results in a normal physical and mental development, it helps to prevent diseases and aids the body to tackle adverse environmental factors of physical, chemical and biological nature [10]. Unbalanced nutrition is the main cause of the most common diseases, while a healthy diet is able to provide their primary prevention. Optimal nutrition is intended to reduce the drugs consumption with an increasing array of foods produced from a larger number of plants and animals used as a source of essential biologically active substances [11].

Nutritional status and the structure of nutrition combined with an active lifestyle are among the chief factors determining the health of the population. The results of medical studies have shown that the younger generation starts to suffer from the major disabling chronic illnesses during the years of study at secondary and higher educational institutions. The problem is often associated with high psychological stress, directly related to the learning process, but, nevertheless, food represents an important component of human life and activity, thus. It is especially important to eat right kinds of food during the period of growth and development of body.

METHODS

Significant work has been done to study the quality and safety of students' nutrition. The food entering the human body has first to satisfy the plastic and energy needs, and an adequate nutrient content is one of the most important conditions for accomplishing this task. Unfortunately, not enough attention is given to the quality of nutrition in Russia [12]. To resolve this issue we take the following steps:

- Introduction of food safety monitoring for compliance with Russian legislation requirements at all stages of production, storage, handling, processing and marketing;
- Control of food products derived from genetically modified plants with the use of genetically modified micro-organisms;
- Harmonisation of safety indicatores with the international requirements;
- Improvement of food safety control system, including the establishment of a modern technical and methodological support system;
- Development of scientific capacity and supporting scientific research in the related fields of science;
- Implementation of measures for the prevention of 'brain drain' and the deficiency of high level scientists.

Since the future of a nation is determined by the health of its younger population, the students of higher and specialized secondary educational establishments have not been ignored in our research [13]. Nutrition quality and catering organization are of extreme importance, since substandard food, unbalanced diet, sustained imbalance of the nutrients are the most significant causes of chronic illnesses such as cardiovascular disease, obesity, hypertension, diabetes, cholesterol increase.

RESULTS

The following problems of students with unbalanced diet were identified:

- Underdevelopment of organs and systems of young people particularly sensitive to the food imbalances;
- Periodically occurring stress situations, especially during the examination period;
- Eating on the run, 1-2 times a day, with the predominance of cold food
- Deficiency of proteins (the main regulators of physiological functions) and vitamin
- deficiency leading to weight loss and chronic fatigue;
- The predominance of fast food in the diet, which does not meet the needs of a growing organism.

- Increased risk of chronic diseases at young age, with the development of disability, and the need of an intermittent treatment;
- The lack of motivation to eat a healthy diet closely related to the lack of knowledge and skills;
- Little attention given to food culture is often neglected in family and social education.

APPLICATION

Proposals for the organization of students' catering :

- Development of special balanced diets adequate for the normal vital functions of the young organism;
- Professional retraining and continuing education for specialists of students' catering establishments;
- Organization of food safety and quality control system in students catering establishments;
- Creation of the communicative system of indicators and early warning of risks and monitoring of risk situations;
- Scientific and methodological support to students' meals system specialists;
- Development of special diets for persons with increased risk of chronic diseases;
- Development of novel foods for different age groups.

CONCLUSION

Nowadays, the impact of the economy on human health is very tangible. Economy and health maintenance should be closely linked. People have to think more about the environment, economy and its impact on the health than about material gains. Introducing of environmentally friendly technologies will help to limit harmful industrial emissions, and thus, to save people from many diseases. A wise use of Earth resources and a reverential attitude to the Earth itself will improve the environmental health of our planet, which also will have beneficial effects on our descendants.

Creation of special training programs will maximize the health of Russian population.

The fundamental and applied scientific research assessing quality and safety of new food sources and components; introduction of innovative technologies, including bio- and nanotechnologies; the growing production of organic food and food raw materials; larger production of new functional food and dietary supplements; developing the programmes of food and nutrition education – all these ensures the healthy lifestyle of the population.

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