Food security as long-term goals of strategic agricultural development

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Abstract

In any national economy, agriculture is one of the key sectors of economic activity overall. As always anthropogenic activities held in conjunction and, not infrequently, the adversarial relationship with the environment, agriculture accumulate elements of society, from food security to social stability. In this context, one of the objectives of long-term agricultural development strategy must be accounted for to ensure food security threshold.

This paper aims to study the scientific endeavor further the current concepts of food security and the challenges facing countries in this regard. Every day, the world’s population grows by about 220,000 people and the world population every year we add 80 million people. All these people must have access to sufficient and safe food. Globalization of the food chain causes constant new challenges and risks to health and interests of consumers.

This article was prepared as a basic research as sources of information: the international literature, FAO (Food and Agriculture Organization - United Nations Food and Agriculture Organization) data, official statistics etc. According to FAO (Food and Agriculture Organization - United Nations Food and Agriculture Organization), food security means “guaranteeing each individual at all times, in any place or time of access to adequate and healthy diet to allow him to have a regime sufficient food for a healthy and active life”.

Multidimensional nature of food security, just as the fight against poverty, calls a good correlation between the various sectors - agriculture, commerce, infrastructure, health - and the variety of intervention levels - local, national, international.

In recent years indicate that there are problems of food insecurity in 86 countries, 43 African, 24 Asian, 9 in Latin America and the Caribbean, 7 in Oceania and Europe 3. In 2004, 35 countries have received emergency aid because of the food crisis. The main causes were: military and civil conflicts, post-conflict situations, refugees, economic disadvantaged areas and climate issues.

Global agricultural production should increase by at least 3% per year to provide live feed of the rising population, according to a study by the Economist Intelligence Unit. At present, current agricultural productivity growth is only 2%. In the present research work, we demonstrated that food security is a global problem of humanity, in the context of population growth, climate change and economic crisis. The food security is influenced by four groups of factors, namely: the social - economic and political, agro-food sector performance, social protection and health and hygiene.

Keywords: food security, agricultural development, strategic goals.
INTRODUCTION

As an anthropogenic activities held in conjunction and, not infrequently, odds with environmental conditions, agriculture accumulates elements of food security and to social stability and ecological balance. One of the goals of long-term agricultural development strategy is to ensure food security threshold and achieve surpluses for export to ensure financial resources for the modernization of all economic activity in agriculture and other sectors of the economy. Is something undeniable that agriculture is an important determinant of economic and social development of a country and the progress of this branch of national interest is the only way to ensure food security.

Agriculture as a basic branch of an economy made and subject to extensive studies on the evolution of the situation of the moment and forecast of its development globally or regionally. In developed countries these concerns are notoriously demonstrating the interest of the responsible factors for the sector defining the degree of civilization of a country given the fundamental role of agriculture - providing food and creating food surpluses that can leave one or other of Stand by socio-economic advantage in international competition.

Although the Common Agricultural Policy (CAP) has successfully achieved the objective of ensuring food security of the EU, it faces almost permanent surpluses in most agricultural commodities, some of them are exported and others must be stored or destroyed within the EU. These measures mean spending big budget, the emergence of distorted some world markets, and does not always serve the best interests of farmers, even becoming unpopular in the eyes of consumers and taxpayers. At the same time, society has become increasingly concerned about the sustainability of agriculture in the context of environmental protection. Decisions taken by the EU aimed at permanently reducing imbalances by limiting production, along with increased costs reduce EU budget for agriculture.

MATERIALS AND METHODS

This article was prepared as a basic research as sources of information: the international literature, FAO (Food and Agriculture Organization - United Nations Food and Agriculture Organization) data, official statistics, etc. This scientific approach include the results of a series of exploratory research, which aimed primarily basic research aimed at acquiring knowledge and concepts specific to the study of phenomena and processes, stating hypotheses, ideas and paradigms known in the art, etc. Following the interpretation of information from documentation made could be formulated a set of original assumptions, were drawn synthetic conclusions and were developed a few personal recommendations.

RESULTS AND DISCUSSIONS

United Nations through its specialized body FAO (Food and Agriculture Organization) report that the world in 125 children are born every minute, resulting in a gain of 200,000 babies daily and 75 million people annually. If in 1850 the world population was about 1 billion people in 75 years to double to 2 billion in 1925, doubling the time rate decreasing to 51 years (in 1976 there were about 4 billion) and is estimated at 44 years a population of over 7.5 billion inhabitants (2020). In a population of 6 billion inhabitants about 32 inhabitants / square km of dry land, which is not yet alarming, but reporting back to productive farmland over 4 square meters per capita farmland, and this area of tern can be problematic.

After FAO estimations, are required 600 million tons per year dry organic matter of vegetable origin and 60 million tons of animal

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<tr>
<td>Total population</td>
<td>3085785</td>
<td>3687496</td>
<td>4443492</td>
<td>5296249</td>
<td>6122769</td>
<td>6506646</td>
<td>6895888</td>
<td>7284293</td>
<td>7656527</td>
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<tr>
<td>Amplitude</td>
<td>-</td>
<td>601711</td>
<td>755996</td>
<td>852757</td>
<td>826520</td>
<td>383877</td>
<td>329242</td>
<td>388405</td>
<td>372234</td>
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<td>Dynamics (%)</td>
<td>-</td>
<td>19.5</td>
<td>20.5</td>
<td>19.2</td>
<td>15.6</td>
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to feed current population (about 7.13 billion people). It is appreciated that that our planet can feed up to 12 billion in terms of modern agriculture and intensive. Romania can provide subsistence, in conditions of normal physiological rations, a number of about 50 million, which is twice the current population.

In the current process of globalization, economic interdependence between countries determines many processes and phenomena in critical condition in a national economy or that extend over several states or even of the entire international economy, especially when the same processes and critical phenomena fires in several states, they become a global problem of the entire world economy. Thus, the energy, the food or environmental crisis is not limited to a single country, but includes the entire region or the entire international economics.

Thus, rapid population growth is, on the one hand, the burden on the development resources, but on the other hand, as a factor for growth. Agricultural areas, fuel resources and raw materials are limited, which puts the relation acuity population - resources. Among these resources directly related to the population have food resources. The question is: can the land and agriculture to feed the billions of people who do not cease to grow?

Research has shown that based on extensive economic development, and especially intensive development, and rational closely correlated both, now and in the future, almost a quarter of the Earth's surface, twice the cultivated area is now, in terms of theory, arable. If this potential could be effectively irrigated and cultivated according to modern agro-technical methods, all arable land could conveniently feed 8 - 10 billion people (excluding land that could be cultivated in the wet tropics because there are currently no techniques for the intensive culture of these fields). Such an operational level but would require huge investments of billions of euros, exceeding the GDP of developing countries. Therefore, it is considering that the best way to feeding efficiency, cultivated land is currently modernizing agricultural production at current levels existing in economically advanced countries. This process of modernization of agriculture in developing countries must produce a higher rate than population growth. Developed countries, with developing countries’ efforts, must have a fundamental role in the transfer of financial resources, knowledge and agricultural technology in favor of developing. With the use of advanced agro-technical, one hectare of arable land would provide food for 24 people to 2.7 people today.

The most difficult problem occurs when food resources correlate with the population as a whole not the global economy, but countries and geographical areas. If all arable land in Asia are cultivated (with large reserves of increasing efficiency in many Asian countries), in Europe the land is cultivated in a proportion of 85%, North America 53%, South America 21% and 32% in Africa. On this continent, the development of agriculture is not prevented by natural resources (the land), but by the economic, social and technical factors. Due to the uneven geographical distribution of population and arable farmland appears necessary to conduct international economic exchanges, including trade in agricultural products.

As can be seen from the above, the main sector responsible for the food security of the population, agriculture plays a key strategic role in the national economy. Food security concept characterized by inter-relationship between food availability for household consumption and ensuring its consumption needs, concerns of each individual to ensure permanent access to a sufficient and healthy food.

The concept of food security was formulated, for the first time, after the Second World War, the United Nations debates Food and Agriculture Organization (FAO), during which was launched in Rome in 1963, the famous manifesto, “Proclamation right of every man to eat in order to satisfy hunger”. FAO defines food security as: “direct access of all people to the food they need” to satisfy their vital functions and lead a healthy and active life.

According to many authors, the food security includes the following key elements:

- ensuring a plentiful food availability for consumption;
- effective access of the population to purchase food supplies by solvent demand of the population;
- an appropriate market food and consumer goods, food (supply);
- food safety enabling healthy eating.
In this context, food security at the individual level defined as “the right to eat” is “the amount of food needed for an individual, expressed in physical units, conventional (calories) and carbohydrates, lipids and proteins to ensure its physiological balance and daily rations to cover consumption: maintenance ration, growth ration and activity ration”.

Although agriculture has a key role in producing food availability, food security depends on the general level of the economy and its operating mechanism. Therefore, formulating hypotheses concerning economic and environmental management of soil resources in terms of ensuring food security of the population, should be performed in terms of a holistic main determinants, namely demographic changes taking place in the agro-food sector through globalization trends and the main issues arising from the European integration.

The analysis of international statistical databases stands a self-amplifying cycle as countries that have growing share in world market and the ability to produce more. Thus, given that food stocks will increase to ensure food security, will be achieved at low prices and the increasing dependence of developing countries.

Food security requires adoption of food policy, which must be correlated and in accordance with the Community acquis, and aims:
- production of food products sufficient volume, structure and quality to meet the food needs of the population throughout the year, thus ensuring obtaining high quality products;
- accessibility of necessary food for the entire population, including the disadvantaged, combining the criteria of equity, with economic efficiency in the production and distribution of food, tending to continue raising efficiency;
- getting more complex nutritional food products, clean and quality in line with international standards.

Meeting the food needs of the population depends on food availability not only the existence but also the solvent demand of the population, therefore the size of the raw product and the level of food costs. Currently food costs exceed 50% of the income of the population. Such a situation constitutes a brake on the development of the internal market and a main barrier to growth. It may be established, that food policy is not just a problem of agriculture and food industry but the entire economy. Overcome the current situation depends on both, the macroeconomic policy and sectoral Gross Domestic Product between national and sectoral labor productivity, revenue and prices, to generate increased solvent demand, expanding domestic market and economic spillover effects.

Achievement, in perspective, of food consumption model in the fullness generalized optional form, may take place both by increasing revenues and reducing in real terms food prices so that the share of the population spending money for food consumption in total consumer spending to diminish in comparable terms from over 50% to around 15 - 20%.

In the generic sense, human poverty is caused, primarily, by limited access to resources. This limitation may result from an imbalance between available resources and population needs, and because the socio-national policy. The ranking is conducted by International Food Policy Research (IFPRI) in each year based on indicators such as percentage of population suffering from food shortages, the number of children younger than 5 years or weighing less than the normal mortality rate for children under 5 years. Over the past 21 years, only 15 countries could improve their score by 50% with respect to this problem (Angola, Bangladesh, Ethiopia, Mozambique, Nicaragua, Niger and Vietnam). In contrast, countries where the situation is alarming are Burundi, Chad and Congo.

CONCLUSION
Summarizing the results of basic research that has led to this scientific approach, which was based, primarily, on the study of a rich literature, we can say that the main long-term strategic objectives of agricultural development should be reflected in:
- abundant and healthy food for consumers (food security and food safety);
- production of commercial farming and appropriate quality standards;
- revenues from the exploitation of agricultural resources equal to those in other economic sectors;
- create and maintain a more dispersed agriculture as possible, based on multifunctional family farms;
- substitution of labor with capital as possible and agriculture;
- projecting agricultural systems environmental friendly;
- conservation of resources for future generations and protecting the environment.

The role of agriculture in national economies is different from one country to another, so that its contribution to overall economic growth is different. However, agriculture fulfill the same functions in all countries: providing food, maintaining employment income and environmental protection. Food security beyond national borders, it has become a global problem. In this context, agriculture has to cope with new requirements, modern anchor in a world of producing goods in the sector, while preserving elements of specificity and capacity of primary conservation.

Global agricultural production should increase by at least 3% per year to provide live feed of the rising population, according to a study by the Economist Intelligence Unit (EIU). At present, current agricultural productivity growth is only 2%. The only solution to address the increased demand for food is streamlining existing agricultural areas. Because of excessive urbanization and industrialization, and land degradation are not available other agricultural land that can be used, as shown EIU study. We could cite as potential solutions using modern technologies and genetically modified plants (GMOS). As we know, many countries are opposed to genetically modified organisms and biotechnology.

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