

## ISSUES OF FOOD SAFETY IN ARTSAKH REPUBLIC AND WAYS OF THEIR SOLUTION

**Karen A. Nersisyan**

Shushi University of Technology  
35/12, Naberejnaya 3<sup>rd</sup> alley, Stepanakert, RA  
[knorsisyan@mail.ru](mailto:knorsisyan@mail.ru)  
ORCID iD: 0000-0003-4715-8692  
Republic of Artsakh

**Roza Yu. Avagyan**

Shushi University of Technology  
35/12, Naberejnaya 3<sup>rd</sup> alley, Stepanakert, RA  
[artyom\\_avagyan@mail.ru](mailto:artyom_avagyan@mail.ru)  
ORCID iD: 0000-0002-1528-6158  
Republic of Artsakh

### Abstract

The current global and regional developments and especially the third 44-day Artsakhi war have posed new challenges and problems both for the entire economy and a priority sector agriculture of Artsakh due to which significant losses of arable land, livestock, agricultural machinery and other property as well as decrease in workforce have been noted.

The study of the issues of development, adoption and implementation of realistic and scientifically justified strategic programs for the solution of the issues of food safety of the population is of particular importance in the current situation.

**Key words:** food safety, agricultural product, population, amount of loss, monitoring system of safety, regulation and strategic plan of providing food safety.

Food safety is presented in the economic literature as a set of legal, organizational, logistical and other measures aimed at providing the sufficient amount of food with necessary quality and safety for population which is available to every member of society, including the most vulnerable parts of the population and can be consumed by them at any time and in any situation including both during emergencies and martial law.

In other words, food safety is the state of the economy of any country when the necessary amount of food is available and the population has the opportunity to obtain it.

Food safety of each country is provided if there is such level of economy which guarantees the physical and economic availability, quality and safety of food corresponding to health norms of the population [1].

The report called «The world state of food safety and nutrition» of this year is the first in its kind which presented the estimation of world condition in the era of pandemic according to which the pandemic continues to reveal weak points of our food system which threaten the lives of people all over the world and livelihoods and declared about sharp increase of global hunger [2].

In the historical summit «Nutrition for growth» on food systems of UNO on September 23 of current year in New York the world leaders were obliged to fight against global starvation, climate change and biomodification [3].

According to a report released by the Food and Agriculture Organization of the United Nations (FAO) on October 7, the world food price index was 130,0 points in September which is 1,2% higher than in August of this year and 32,8% higher than the value in September of the previous year [4].

The 12 - months inflation in Armenian consumption market (from 2020 September to 2021 September) was 8,9%, the prices of food and soft drinks increased by 15,4% in Armenia and by 13,9 % in Artsakh [5, 6].

The issues of identifying problems of food safety and taking effective measures to solve them have also become on the agenda in the EAEU member states including Armenia.

Two main approaches are currently being actively discussed in the Union one of which is related to the regulation of using a collective model for implementation of economic potential of all EAEU countries and another to the provision of agricultural products and food exclusively to national production resources [7].

The food security of each country is mainly ensured through the development of agriculture, food production and food import systems.

The issues of developing and implementing effective measures to clarify and solve the problems of food safety have become more urgent for Artsakh as global and regional challenges have been doubled due to significant losses in arable land, livestock, farm mechanization and other property as well as the reduction of work force in the agrarian sector.

In particular, if in the past Artsakh exceeded the minimum rate for the production of grain crops per capita thus exporting part of the harvest to the Republic of Armenia, now all the existing potential is directed to meeting the needs of the local population.

The 44-day war has terribly affected the quick decline of economy especially in agriculture which fell by 21,7 percent in 2020 and by 47,2 percent in the first half of this year.

Artsakh has had more than 130 000 hectare of arable land before the war from which about 75% was left under the control of the enemy. About 20% of fruit gardens, irrigation water supplies, livestock, significant part of arable land and farm machinery were lost according to preliminary calculations.

The losses are quite serious which indicates their negative impact on the economy.

There are about 35,000 hectares of arable land in Artsakh at present according to preliminary estimation. Proper and competent management of this resource will allow us to fully ensure the food security of the people of Artsakh over time.

Of the 7,000 hectares of perennial plantations in Artsakh before the war we have about 2,500 hectares of gardens now including 500 hectares of newly planted and ripe pomegranate gardens, 900 hectares of vineyards, 650 hectares of mulberry gardens and 450 hectares of walnut and seed fruit gardens.

Significant losses were in fruit harvesting. Due to hostilities in Artsakh harvest activities were not held in autumn last year. Main losses were in pomegranate harvest, after we had losses of eastern date, grapes and other fruits [8].

In the current non-ordinary situation, the main tasks of the Government of the Republic of Artsakh in the field of food security are the provision of physical and economic availability of food, safety of food for the consumption of population, access to diversified food, creation, storage and replenishment of state food reserves.

Improving the monitoring system of food safety can be used to ensure food safety. It should include the collection and analysis of information on the supply of vital food to the population as well as forecasting the situation in the field of food safety and implementation of preventive measures of food crisis and certain actions towards eliminating the results of crisis.

It should be noted that the current monitoring systems of food safety in Artsakh do not correspond to the modern methodology. Therefore, the government should focus on the rapid introduction of up-to-date methodologies of monitoring systems which are apt to further improvement. It should also include elements of introducing ability development and data system which will enable to identify which monitoring methodology needs to be improved.

It is possible to equalize the level of profitability for farms in the whole territory of Artsakh in current conditions. It is necessary to implement a mapping of agricultural lands for this purpose including climatic conditions, soil composition and structure as well as information on the cultivation of the most profitable crops offered for the given areas or orientation of animal husbandry.

The mapping of agricultural lands of the Republic of Artsakh will allow to develop differentiated ways of development of areas favorable or unfavorable for agriculture, to provide the necessary consultation on the management of more profitable agriculture as well as to take measures to promote their implementation.

The above mentioned directions of the strategy of food safety should be outlined and included in the action plans of the Republic of Artsakh.

It is possible to work out and adopt the regulation and action plan of food safety of AR from political perspective by the end of the year including all the bases and actions to be taken to ensure the availability and use of food as well as emergency management in critical situation.

It is necessary to adopt the strategy of sustainable development of rural agriculture of Artsakh Republic for 2021-2031 to approve the list of measures ensuring their implementation which should totally present the guidelines of agrarian policy to be implemented in the coming decade.

**The issues set and measures to solve them may be presented in the following logical sequence:**

**1. To provide the minimum level of food availability and self efficiency of nutritional diversified food**

1.1. To improve the production of local food of vital importance

1.2. To improve the indices of food balance for certain goods when importing substitution is economically efficient

**2. To raise the availability of diversified food**

2.1. To create preserve and complement state food reserves

2.2. To prevent food wastes and losses

2.3. To create close relations with partners thus providing cooperation with other initiatives such as providing food to schoolchildren and teaching on nutrition

**3. To implement monitoring of food safety**

3.1. To improve the monitoring system of food safety

3.2. To define criteria, to determine unfavorable areas and map them and develop action plan for their further development

Digital agriculture needs to promote agricultural innovations based on technology that lead to significantly higher productivity, increased resistance to climate change and other natural disasters, access to high-quality markets, new market opportunities, improved food quality and resource efficiency.

In order to outline the economic policy in the new situation, Artsakh needs first of all a widespread “business inventory” today. Not all the business “cut” chains have been clarified yet, the amount of the losses has not been finally defined and, which is more important, it is still difficult to get an idea of what the so-called “remaining economy” is and what we can get from it.

It is clear that Artsakh's economy can never be the same again, especially in terms of structure. It is clear that, for example, once wheat exporting Artsakh will now need grain itself, that the model of food safety will change and many things will change. There will be many new issues related to the protection of property rights, unemployment, lack of land and product realization. And you have to start thinking about all that earlier.

In the current situation, it is very important to form a perception that we are not restoring the economy of Artsakh which is familiar to us, but we are building a new economy on the remaining opportunities. This will not only allow us to avoid the despair expected at every step, but will also allow us to think more freely and broadly, to try to take advantage of possible new perspectives that may be opened due to the changed reality of geopolitical presence and the presence of peacekeepers.

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## ՊԱՐԵՆԱՅԻՆ ԱՆՎՏԱՆԳՈՒԹՅԱՆ ԱՊԱՀՈՎՄԱՆ ՀԻՄՆԱԽՆԴԻՐՆԵՐԸ ԵՎ ԴՐԱՆՑ ԼՈՒԾՄԱՆ ՈՒՂԻՆԵՐԸ ԱՐՑԱԽԻ ՀԱՆՐԱՊԵՏՈՒԹՅՈՒՆՈՒՄ

**Կ.Ա. Ներսիսյան, Ռ.Յու. Ավագյան**

*Շուշիի տեխնոլոգիական համալսարան*

Գլոբալ և տարածաշրջանային ներկա զարգացումները, հատկապես արցախյան երրորդ 44-օրյա պատերազմը նոր մարտահրավերներ ու խնդիրներ են առաջադրել ԱՀ-ի ինչպես ամբողջ տնտեսության, այնպես էլ նրա գերակա ոլորտը համարվող գյուղատնտեսության առջև, կապված պատերազմական գործողությունների հետևանքով վարելահողերի, անասնազլխաքանակի, գյուղտեխնիկայի և այլ գույքի զգալի կորուստների, աշխատուժի թվաքանակի կրճատման հետ:

Ներկա պայմաններում առանձնակի կարևորություն է ձեռք բերում բնակչության պարենային անվտանգության ապահովման հիմնախնդիրների և դրանց լուծման համար իրատեսական ու գիտականորեն հիմնավորված ռազմավարական ծրագրերի մշակման, ընդունման և իրագործման հարցերի ուսումնասիրությունը:

**Բանալի բառեր.** պարենային անվտանգություն, գյուղատնտեսական արտադրանք, բնակչություն, կորուստների չափեր, անվտանգության մոնիտորինգի համակարգ, պարենային անվտանգության ապահովման հայեցակարգ և ռազմավարական ծրագիր:

## ПРОБЛЕМЫ ОБЕСПЕЧЕНИЯ ПРОДОВОЛЬСТВЕННОЙ БЕЗОПАСНОСТИ И ПУТИ ИХ РЕШЕНИЯ В РЕСПУБЛИКЕ АРЦАХ

**К.А. Нерсисян, Р.Ю. Авагян**

*Шушинский технологический университет*

Нынешние глобальные и региональные развития, особенно третья 44-дневная война в Арцахе, выдвинули новые вызовы и задачи как для всей экономики страны, так и для считающейся приоритетной отраслью экономики, сельского хозяйства, в связи с значительными потерями пахотных земель, поголовья скота, сельхозтехники и другого имущества, сокращением численности рабочей силы.

В нынешних условиях особую важность приобретает изучение проблем обеспечения продовольственной безопасности населения, а также вопросы разработки, принятия и реализации научно обоснованных стратегических программ для их решения.

**Ключевые слова:** Продовольственная безопасность, сельскохозяйственная продукция, население, размеры потерь, система мониторинга безопасности, концепция обеспечения продовольственной безопасности и стратегическая программа.

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