ARMENIA'S LAND RESOURCES AND FOOD PROBLEM

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Key words: agriculture, food security, land resources, cultivation, taxation, climate change

Introduction. When addressing the issues of agricultural development and food security, it is important to take into account the multifaceted challenges of the farming sector. According to the testimony of experts, our country is affected by both global and regional risks and threats in this regard, therefore it is important to realistically assess their effects first, and then take systematic steps to increase the level of food security[1]. The Commission on World Food Security of the Food and Agriculture Organization of the United Nations (FAO) defines food security as: "All people are always provided with physical, social and economic access to sufficient, safe and nutritious food that meets their dietary preferences and dietary needs for an active and healthy life" [Fanzo, 2023].

Methodology. In our study, comparative analysis, statistical series, economic generalizations, comparison of economic indicators and other methods were used. As a rule, self-sufficiency in terms of the most demanded food products is one of the important indicators for assessing the country's food security level. According to the Ministry of Economy of the Republic of Armenia, the level of self-sufficiency in "essential food products" (products that consumers are likely to buy regardless of income level) in Armenia is 52.5% [Ministry of Economy, 2023]. According to the Ministry of Economy, a higher level of self-sufficiency can be achieved by increasing the cultivated land, and also by improving the yield and quality of crops. Efforts aimed at improving the quality of agricultural products and increasing the yield of crops make the entire production process more profitable and attractive for farms [Sargsyan, 2023]. In fact, at no time in the past have agri-food systems faced so many disasters as in recent years. the entire food system is at risk. Disasters go beyond the economic realm and have devastating effects on food security and nutrition. It is noteworthy that no country, rich or poor, large or small, can avoid the irreversible consequences of climate change.

Literature review. Our analysis is based on the professional approaches of leading experts, reports of international organizations, the legislation regulating agriculture, in particular, the farming sector, as well as the instructive experience of different countries and the study of the challenges caused by climate change. International experts pay attention to the system of crop intensification for more productive, resource-conserving, climate-resilient, and sustainable agriculture [Adhikari, et al., 2017], as well as to social capital in post-crisis resilience [Aldrich, 2010]. While practical aspects are among more frequently

[1] The term "food security" was first used in 1974.

discussed topics, Ansah, I. G. K., Gardebroek, C., & Ihle, R. (2019) examine resilience and household food security from a methodological standpoint and bring new approaches and empirical evidence. Others discuss the role of natural disasters in the overall process of ensuring food security [Arouri et al., 2015, 59–77] with a carefull consideration of the development resilience literature: theory, methods and evidence [Barrett, et al., 2021], as well as the latest trends, including the impact of COVID – 19 [Béné, et al., 2021, 59-67]. Finally, we consider studies related to the role of resilience in food system studies in low and middle-income countries [Meyer, 2020, 56].

Analysis. The land fund of the Republic of Armenia is 2974.3 thousand. ha, of which 46.8 percent can be used for agricultural production. The following land zones are distinguished in RA:

- Semi-desert,
- Dry steppe,
- Steppe,
- Forestry,
- Mountain meadow.

The total land area of RA and agricultural lands types are presented in the table below.

Table 1. Armenia's land structure

	2018	2019	2020	2021	2022
Total land area, 1000 ha	2974,3	2974,3	2974,3	2974,3	2974,3
Of which, agricultural	2044,5	2044,2	2043,5	2042,5	2042,1
Including					
Arable land	445.6	444.8	444.0	443.4	442.7
Perennial planting	35.3	36.4	37.3	38.1	39.2
Lawn	121.0	121.1	121.1	121.1	121.2
Pasture	1 051.6	1 051.1	1 050.6	1 049.9	1 049.7
Other lands	391.0	390.8	390.5	389.9	389.3

Based on the RA Government's decision No. 1927 of 03.12.2020 "On approving the 2020 report on the availability and distribution of the land fund of the Republic of Armenia (Land balance)", we record that only 208.89 thousand ha are irrigated from the territory of the RA , the detailed description of which is given in table 1.

The studies of Annex 1 of the RA Government Decision No. 68-L of January 23, 2020 prove that in 2018, 242.8 thousand arable land or about 54.5 percent were used for the purpose.

There are many reasons for non-cultivation of RA agricultural land:

- The lack or difficulty of profitable activities on small or fragmented land,
- Inaccessibility of irrigation water,
- Absence or unavailability of agricultural machinery,
- Low level of soil fertility,

- Climatic conditions,
- Absence of land user or land owner,
- Unfavorable tax environment,
- Defective legal regulations,
- Imports of agricultural products at competitive prices,
- etc.

Table 2. Arable and other categories of land.

	Area (1000 ha)	**From which irrigated**
The territory of Armenia	2974,26	208,89
RA land fund according to purpose		
Lands of agricultural significance	2043,51	155,39
From which		
Arable land	444,00	117,45
Perennial plantings	37,34	36,44
Lawns	121,11	1,5
Pastures	1050,54	
Other lands	390,52	

Profitable activity on small plots of land is a rather difficult task, one of the solutions of which may be the implementation of new discoveries related to increasing the yield on a unit of land. A close cooperation between science - private sector - the state is necessary, under such conditions the registration of the result can last up to decades.

Armenia ranks among the extremely risky countries from the point of view of agriculture. Climate change in Armenia has led to biodiversity loss, ecosystem degradation and water scarcity. Food security cannot be imagined without developed irrigated agriculture. We are already facing this problem in Armenia. Farmers report that the flow of water from springs and the availability of water for irrigation have decreased dramatically in recent years. And the scarcity of water leads to a decrease in agricultural production, reduces the economic efficiency of farmers, which in turn causes a problem of food security. Compared to the 1960s, the frequency and intensity of dangerous hydro-meteorological phenomena such as droughts, depressions, hailstorms and early spring frosts have increased by about 20% in the context of climate change. In some years, about 123 thousand hectares of our cultivated lands were damaged, which is about 30% of the territory of the entire republic [Ecolur, 2021].

In Armenia until 2100 it is predicted that the shift of agro-climatic zones will be 200-400m, crop yields will decrease, soil degradation will increase and fertility will decrease, and the negative impact of hazardous hydrometeorological phenomena will increase. The frequency of disasters in different regions of the world in 1979-2019. has also grown

worldwide. "The frequency of disasters worldwide in 2010 increased more than three times compared to 1970 and 1980. It has an equally negative impact on agriculture. Economic losses due to disasters in the 2010s averaged 170 billion US dollars per year. Estimates show that about 25-26% of it goes to agriculture.

In order to improve the food security situation in our country, first of all, it is necessary that there are no uncultivated arable lands in the country, while today more than half of the arable lands in Armenia (more than 222 thousand ha) are not cultivated, degraded and out of order. For food security, specialists urge to consider modern technologies, machinery, material and technical means, correct agro-techniques, as well as efficient and targeted spending of financial resources allocated by the state and international organizations to be a necessary prerequisite in the agricultural sector. In addition, in order to regulate the country's food security situation, some believe that it is necessary to restore the Ministry of Agriculture and fill it with competent, intelligent and experienced specialists in the field [Ecolur, 2021].

Conclusions and recommendations. We propose the creation of agricultural cooperatives through the unification of small plots of land, which will create an opportunity for the settlement of the above-mentioned problems, will promote the direct involvement of cooperative members in the cooperative's work, and will benefit the cooperative members by receiving two types of stable income: as a hired employee of the cooperative, a salary, and as a member of the cooperative, a dividend. .

It is expected that the mentioned solution will be full use of agricultural lands, reduction of unemployment, reduction of poverty, increase of welfare, reduction of emigration, increase of aggregate consumption, reduction of import, increase of export.

In order to solve the problems of the absence, inaccessibility or otherwise of land users or land owners, we suggest that during the period of impossibility to find the land owner, the right of temporary management of the land should be reserved to the community or the state, until the owner or user appears, including the community as a user. agricultural cooperatives. In order to solve the problems of land use, we propose to increase the real estate tax rates of unused lands, thereby forcing them to use them for their intended purpose, sell them, or rent them out, or in some other way promote the joining of cooperatives. Currently, supermarkets or other large consumer organizations pay high taxes for the purchase of agricultural products. For example, acquisition costs of agricultural goods are often not deducted when calculating income tax because the seller's information is missing [RA Tax code, 150], which requires the payment of income tax in the amount of 20 percent of the acquisition value, then the prohibition of recognition of expenses for the purpose of income tax calculation, which means the payment of additional income tax in the amount of 18 percent [RA Tax code, 111], as well as value added tax in the amount of 20 percent of the sales price. If the high cost of acquisition is added to this

high tax burden, large reselling organizations prefer the import of agricultural products from other countries, from which income tax is not charged, in terms of profit tax calculation, it is considered a reduction, and the amount of tax paid at the customs border is deducted from the value added tax.

In order to solve this problem and promote local agricultural products, we propose to amend Articles 150, 111 and 63 of the RA Tax Code to exempt agricultural products from income tax, create an opportunity to recognize expenses for the purpose of calculating profit tax, and set a 5% value added tax rate. Or, set the field of taxation of agricultural products as the field of taxation of turnover tax, without threshold limitation, and set a rate of 5 percent of turnover tax.

Finally, it is necessary to carry out mapping, inventorying and digitalization of the RA land fund. Then make a yield map by sector, on the basis of which make business plans and present them to potential investors.

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In the changing world, consumption is organized through online platforms of supermarkets, hypermarkets or large corporations of international dispersion working with digital technologies. Such global changes have led and continue to drive small and me-dium-sized stores out of the market. And for the entry of goods into such giant structures, uninterrupted supply of goods, speed, quality, competitive price, branding, etc. are re-quired. It is obvious that households or small agribusinesses cannot access such plat-forms, so there is a need to merge or otherwise scale up commercial organizations, which will create an opportunity and promote the increase in agricultural production, with the aim of developing local production to replace imports and why not. export promotion.