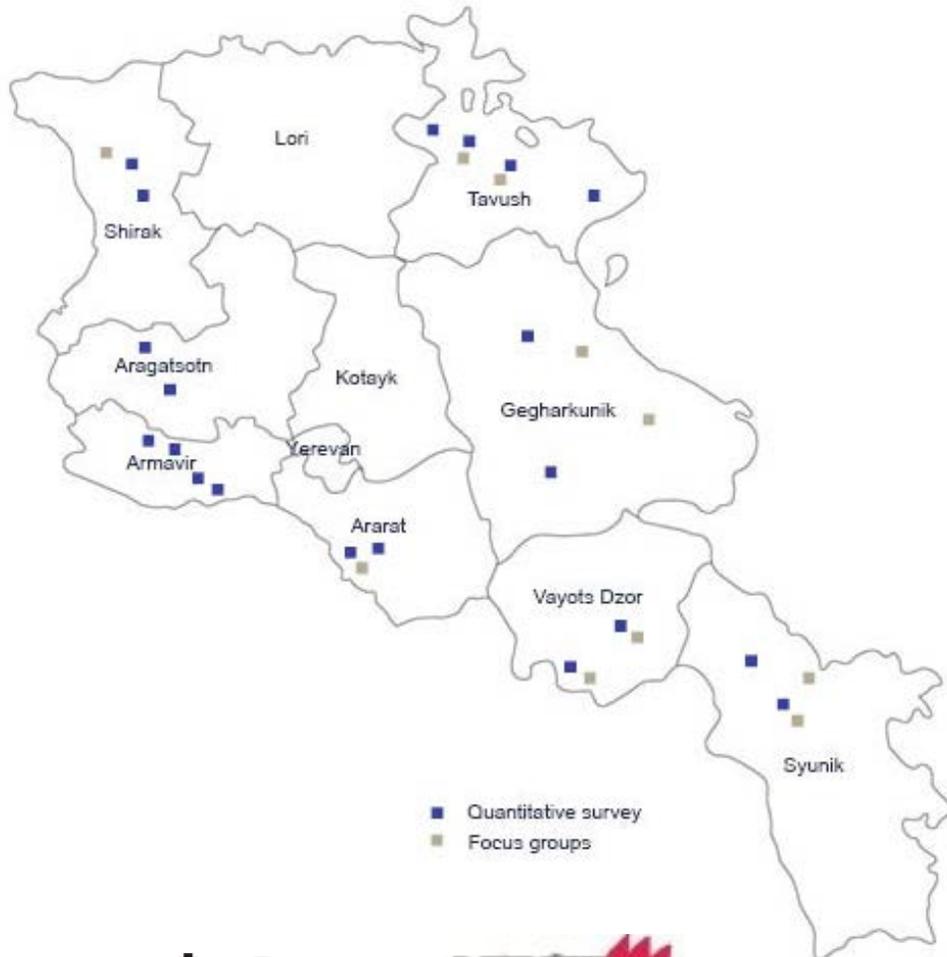


# COOPERATION BETWEEN AGRICULTURAL PRODUCERS IN ARMENIA



## TABLE OF CONTENTS

<b>INTRODUCTION.....</b>	<b>3</b>
Quantitative survey .....	3
Focus groups .....	5
Case study.....	6
Sources of secondary data.....	6
<b>CHAPTER 1. AGRICULTURE IN ARMENIA: DESK RESEARCH.....</b>	<b>8</b>
Overview.....	8
Macroeconomics.....	8
Land use.....	11
Horticulture and livestock breeding .....	13
Existing issues and challenges.....	14
State policies and cooperation .....	16
Provision of loans to the agricultural sector by the financial institutions .....	19
Cooperatives and commercial organizations.....	20
Laws and legal acts regulating the activities of the cooperatives.....	23
<b>CHAPTER 2. QUANTITATIVE SURVEY RESULTS.....</b>	<b>27</b>
Social-demographic profile of the respondents.....	27
Main horticultural produce .....	30
Farm characteristics .....	31
Main market outlet and buyer relationships.....	37
Factors affecting revenue and sustainable development of agricultural activities.....	42
Cooperation .....	43
<b>CHAPTER 3. RESULTS OF THE FOCUS GROUPS .....</b>	<b>52</b>
Perceptions of the agricultural cooperatives and cooperation.....	52
Cooperation practices and the understandings of such practices.....	56
Challenges and opportunities of the cooperatives.....	59
<b>CHAPTER 4. “BERDAVAN” HORTICULTURAL CONSUMER COOPERATIVE: CASE STUDY .</b>	<b>65</b>
Description of activities.....	65
Financial data.....	67
Key achievements.....	67
Key obstacles .....	68
Management .....	70
Development perspectives.....	71
<b>CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>73</b>

## **INTRODUCTION**

The purpose of this study is to provide information about formal and non-formal cooperation between agricultural producers in horticulture sector in Armenia. The collected data will be used as supportive information for development of agricultural policies and targeted interventions.

The study aimed at revealing any shortcomings and possible obstacles for sustainable operation and development of cooperatives promoted by international or local organizations and the Government of Armenia (GoA), as well as the present achievements and success stories in order to find ways to organize the future activities of the cooperatives in a more effective manner.

The study also aimed at assessing the perceptions and attitudes towards cooperatives among rural population in Armenia, assess their knowledge and willingness to join a cooperative. To achieve all of the above objectives, alongside current members of agricultural cooperatives, primary information was also collected in communities where there are no cooperatives, as well as from villagers who are not members of a cooperative despite its accessibility.

During the study, quantitative and qualitative methods for primary data collection were applied together with desk research and a detailed case study of one cooperative.

The report contains five chapters. The first chapter summarizes the data collected through desk research and includes a general description of Armenian agriculture sector, and the current trends of agricultural cooperation in particular. Chapters 2, 3 and 4 analyze the findings of the quantitative survey, focus groups and the case study. The last chapter is dedicated to conclusions and recommendations.

### **Quantitative survey**

The survey was implemented in July 2016 in 20 villages of 8 different regions of Armenia. The selection of rural communities was made taking into account the popularity of horticulture activities and the accessibility to a functioning cooperative in the region. A total of 300 persons participated in the survey. 100 interviews were conducted among the cooperative members, while the other 200 respondents were non-members (100 interviewed in communities with existing cooperatives, and 100 in communities with no established cooperatives).

Two different questionnaires were designed for the two main target groups. The average duration of interviews among the cooperative members was 25 minutes, and 20 minutes among non-members. The interviews were conducted individually and anonymously.

Shen NGO regional representatives and chairpersons of the cooperatives helped identify the members of the cooperatives in each selected community. Non-members were sampled randomly, the only criteria for selection being the respondent's involvement in horticulture.

The fieldwork consisted of 10 regional visits. During each visit, the group of interviewers visited two nearby villages that have the most similar characteristics in the region. The selection criteria was that one of the villages should have a functioning cooperative, while the other village should not have one.

Accordingly, 10 villages were selected with functioning cooperatives, and then 10 nearby villages with no cooperatives. In the villages with a functioning cooperative, the interviewers conducted 20 interviews (10 interviews with cooperative members, 10 interviews with non-members). In villages with no cooperatives, 10 interviews were conducted among randomly selected farmers.

**Table i1. Quantitative survey sample**

Region	Community	Effective interviews	Cooperative
<b>Armavir</b>	Lukashin	20	“Lukashin” Consumer Cooperative (CC)
	Khanjyan	10	No cooperative in the village
	Arevik	20	“Arevik” CC
	Mrgashat	10	No cooperative in the village
<b>Tavush</b>	Berdavan	20	“Berdavan” horticultural CC
	Koti	10	No cooperative in the village
	Ptghavan	20	“Ptghavan” agricultural CC
	Zorakan	10	No cooperative in the village
<b>Shirak</b>	Basen	20	“Basen Community Pasture Users Association” CC
	Karnut	10	No cooperative in the village
<b>Aragatsotn</b>	Tatul	20	“Tatul Community Pasture Users Association” CC
	Ashnak	10	No cooperative in the village
<b>Ararat</b>	Pokr Vedi	20	“Khor Virap” agricultural CC
	Vanashen	10	No cooperative in the village
<b>Vayots Dzor</b>	Gomk	20	“Vankadzor agricultural association” CC
	Khndzorut	10	No cooperative in the village
<b>Syunik</b>	Angeghakot	20	“Angeghakot Community Pasture Users Association” CC
	Ashotavan	10	No cooperative in the village
<b>Gegharkunik</b>	Martuni	20	“Martuni Community Pasture Users Association” CC
	Dprabak	10	No cooperative in the village
<b>Total</b>		<b>300</b>	

## Focus groups

In frames of the study, 10 focus groups were conducted in 10 villages of 6 different regions of Armenia. Focus group participants were selected with the same approach that was used for the quantitative survey, including members of cooperatives (5 focus groups), non-members in a community with a functioning cooperative (1 focus group), and farmers in communities with no established cooperatives (2 focus groups).

In addition to these 3 target groups, the qualitative study also included members of a non-formal cooperation (1 focus group), and ex-members of a cooperative (1 focus group).

The communities and specific cooperatives/non-formal groups were selected so as to ensure that the experiences represented were as diverse as possible. Two of the focus groups were conducted with women led groups. The focus groups consisted of 9-10 participants and the average duration of the focus groups was 90-120 minutes. All discussions were audio recorded and transcribed.

**Table i2. Focus groups sample**

Region	Community	Focus groups	Status
Vayots Dzor	Gomk	1	Cooperative members
Syunik	Shaki	1	Cooperative members
Ararat	Nor Kyank	1	Cooperative members
Gegharkunik	Ttujur	1	Cooperative members
Shirak	Hatsik	1	Cooperative members
Tavush	Ptghavan	1	Non-members
Gegharkunik	Geghamasar	1	No cooperative in the village
Vayots Dzor	Khndzorut	1	No cooperative in the village
Syunik	Ashotavan	1	Non-formal cooperation
Tavush	Berdavan	1	Ex-members
<b>Total</b>		<b>10</b>	

## Case study

“Berdavan” horticultural Consumer Cooperative was selected for the case study foreseen in frames of this study. Several methods of data collection were used during the study in order to get a comprehensive picture of the cooperative’s operations and activities. Groups directly or indirectly linked to the activities of the cooperative were involved as well - through interviews with current members of the cooperative, a focus group with the former members of the cooperative, and an individual in-depth interview with the regional representative of Shen NGO. The data from the quantitative survey conducted in Berdavan was also separately reviewed, together with the founding documents of the cooperative.

The participatory observation method foreseen for the exploration of the day-to-day activities of the cooperative was unfortunately not feasible, because the cooperative did not have day-to-day activities at the time of the study due to seasonality. This phenomenon is typical not only for Berdavan horticultural consumer cooperative, but also for all other cooperatives in Armenia. In this particular case, the cooperative had already completed pre-harvest activities, and the works were scheduled to restart in parallel to the harvest of grapes and peaches, i.e. in late August-October, which did not fit the timeline of the study.

## Sources of secondary data

National statistical service of the Republic of Armenia

<https://www.armstat.am>

Ministry of Agriculture of the Republic of Armenia

[http://minagro.am/public/uploads/2015/02/CARMAC\\_II.pdf](http://minagro.am/public/uploads/2015/02/CARMAC_II.pdf)

Ministry of Finance of the Republic of Armenia

<http://www.mfe.am/index.php?hdr=264&lang=1>

Central Bank of Armenia

<https://www.cba.am/am/SitePages/statmonetaryfinancial.aspx>

International Center for Agribusiness Research and Education (ICARE) Foundation, Country report: Armenia, March 2015

[http://www.agricistrade.eu/wp-content/uploads/2015/05/Agricistrade\\_Armenia.pdf](http://www.agricistrade.eu/wp-content/uploads/2015/05/Agricistrade_Armenia.pdf)

ICARE Foundation, Agricultural Cooperatives

[http://icare.am/uploaded\\_files/11111%20\(1\).pdf](http://icare.am/uploaded_files/11111%20(1).pdf)

Food and Agriculture Organization of the United Nations  
<http://www.fao.org/docrep/field/009/aq670hy/aq670hy.pdf>

World Development Report 2008, Agriculture for Development, The World Bank  
<http://documents.worldbank.org/curated/en/587251468175472382/pdf/41455optmzd0PA18082136807701PUBLIC1.pdf>

Armenian National Agrarian University  
<http://anau.am/>

“Agricultural Project Implementation Unit” of the Ministry of Agriculture  
<http://www.arspiu.com/4.0.html>

“Rural Areas Economic Development Project Implementation Unit” of the Staff of the GoA  
<http://www.raed.am/home.html>

Ministry of Economy of the Republic of Armenia  
<http://www.mineconomy.am/>

Avenue consulting, Agriculture in Armenia: Snapshot  
<http://www.avenueconsulting.am/resources/avenue/uploads/pdf/aafab24852e8b106fd66818c0349bf8e.pdf>

Republic of Armenia State Register of Legal Entities  
[http://www.justice.am/storage/files/legal\\_acts/legal\\_acts\\_2106531375521\\_stat2014.pdf](http://www.justice.am/storage/files/legal_acts/legal_acts_2106531375521_stat2014.pdf)

Analysis of Legal Framework Regulating the Activities of Cooperatives, Yerevan, 2014  
[http://www.arspiu.com/fileadmin/user\\_upload/photogalleries/Coop\\_Study/Report\\_arm.pdf](http://www.arspiu.com/fileadmin/user_upload/photogalleries/Coop_Study/Report_arm.pdf)

World Vision Armenia  
<http://www.wvarmenia.am/am/adp>

UMCOR Armenia  
<http://www.umcorarmenia.am/node/150>

Positive Planet  
<http://www.positiveplanet.ngo/en/project/farming-cooperatives-2/>

Shen NGO  
[http://www.shen.am/index\\_am.php](http://www.shen.am/index_am.php)

Delegation of European Union to Armenia  
[http://eeas.europa.eu/delegations/armenia/press\\_corner/all\\_news/news/2015/20150709\\_hy.htm](http://eeas.europa.eu/delegations/armenia/press_corner/all_news/news/2015/20150709_hy.htm)

# CHAPTER 1. AGRICULTURE IN ARMENIA: DESK RESEARCH

## Overview

Armenia is a mountainous country located in the South Caucasus. It occupies an area of 29,743 km<sup>2</sup>, which is mostly in subtropical zone. The air temperature ranges from +40C to -12C during the year.

More than ¾ of Armenia's territory is above 1000m a.s.l. The main cultivated lands are in Ararat valley in the south-west part of the country. According to the data from the National Statistical Service (NSS) the total area of agricultural lands has comprised 20,494 km<sup>2</sup> in 2014.

The agriculture is one of the key sectors of economy in every country. The sector is important both in the context of ensuring the food safety of the country and from the point of view of the participation in the formation of the Gross Domestic Product (GDP), ensuring the occupation of the people involved in the agriculture and provision of appropriate incomes for those people. The productivity of the agriculture and the generated output greatly condition the food prices and thus impact the living standards of the population. The significance of agriculture for Armenia is conditioned by all the above mentioned factors.

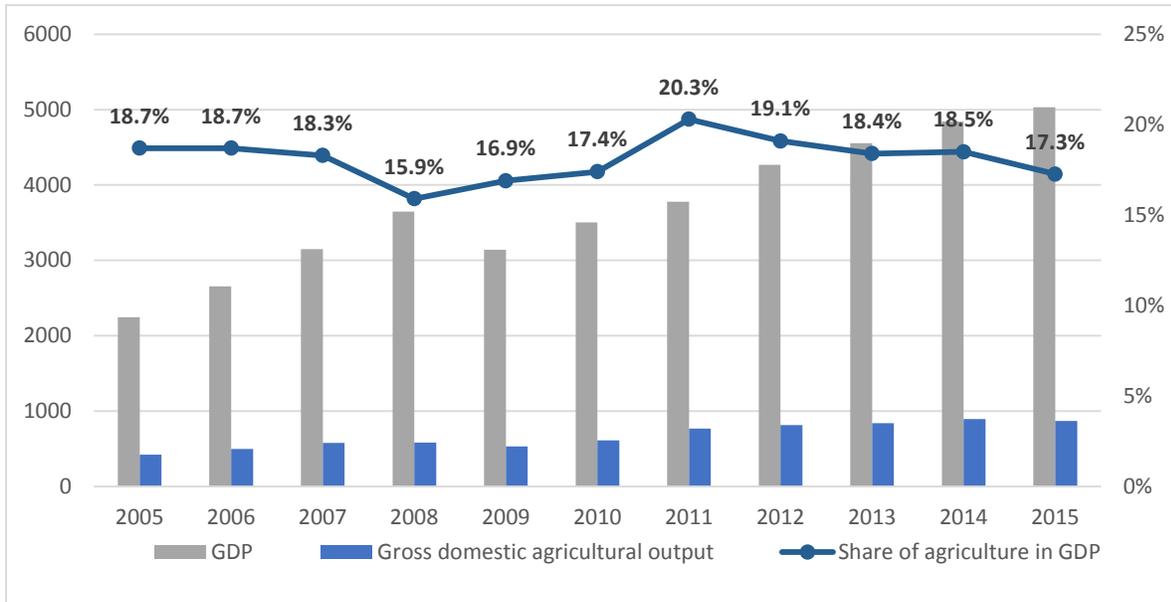
The collapse of the Soviet Union had a drastic impact on the Armenian economy. Armenia implemented land reforms, which started in 1991 and as of middle of 1994 the majority of the agricultural lands were privatized. As a result, private farms were created, without supporting infrastructure – appropriate agricultural machines/mechanisms, irrigation water supply and advanced agricultural practices.

## Macroeconomics

Agriculture has a significant share in the GDP of Armenia and, thus, can have a considerable contribution to the future economic growth. It is the second largest sector of the economy after the industrial one. According to the preliminary data published for 2015, the agriculture has comprised 17.3% of the GDP, while in 2014 it comprised 18.5% of the GDP. We shall mention that the GDP of Armenia has totalled to 5032.1 bln. AMD in 2015 – an increase of 3.0% compared to 2014. The main positive contributors to the increase of the GDP have been the agricultural and industrial sectors.

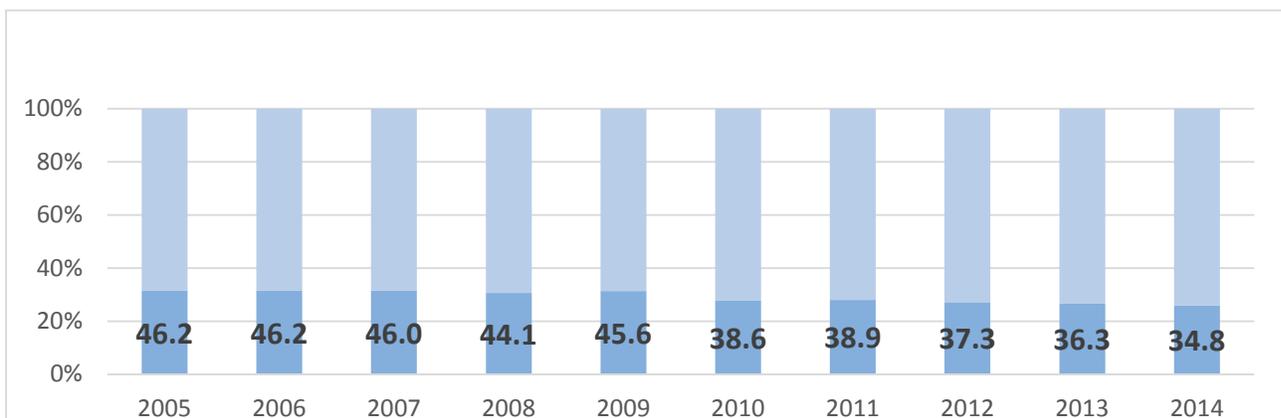
In parallel to the economic growth, the agricultural sector growth contributes to the increase of the incomes of rural population and the reduction of the poverty level.

**Chart 1.1. Comparison of the dynamics of the agriculture’s share in the GDP with the GDP indicator**



As for the number of population occupied in agriculture, as of 2014 the level of occupation of the total population of Armenia has been 52%, out of which 34.8% was occupied in the agriculture. The development tempo of the agricultural sector directly affects the improvement of the living standards for the people involved in this sector.

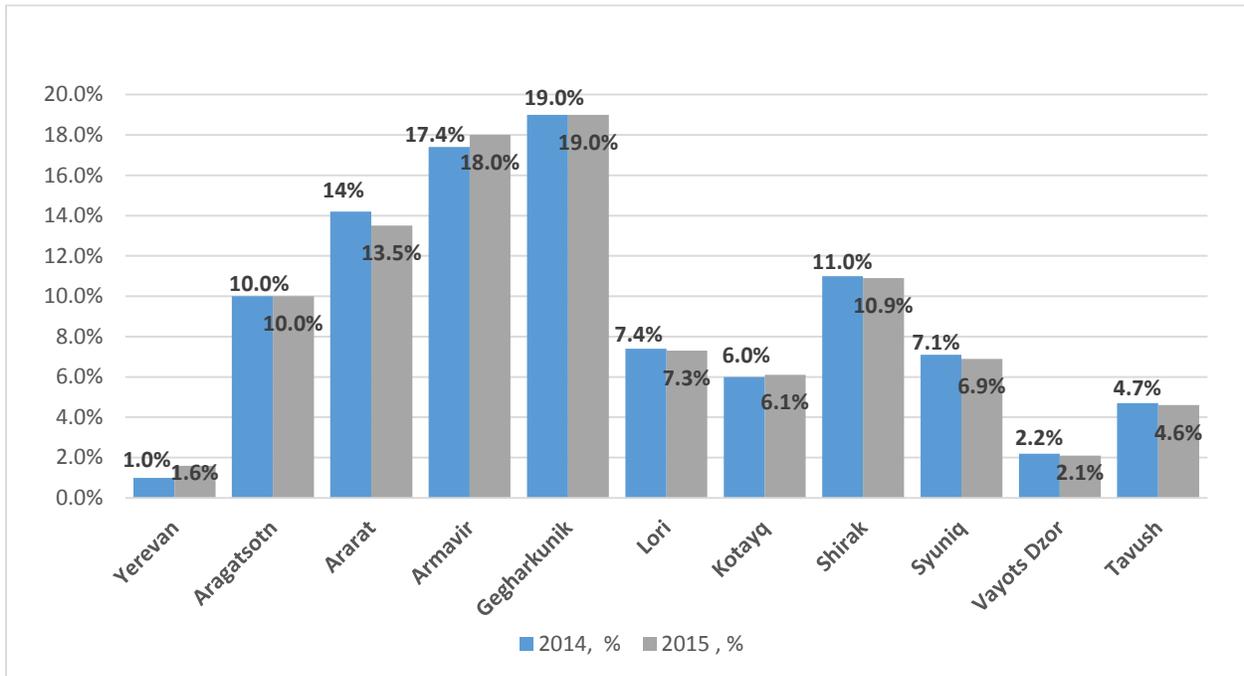
**Chart 1.2. Percentage of population occupied in the agricultural sector for 2005-2014**



Gegharkunik, Armavir and Ararat marzes have been the most active in the agricultural sector of Armenia in 2014 and 2015. The gross agricultural output of these marzes have comprised 415,5

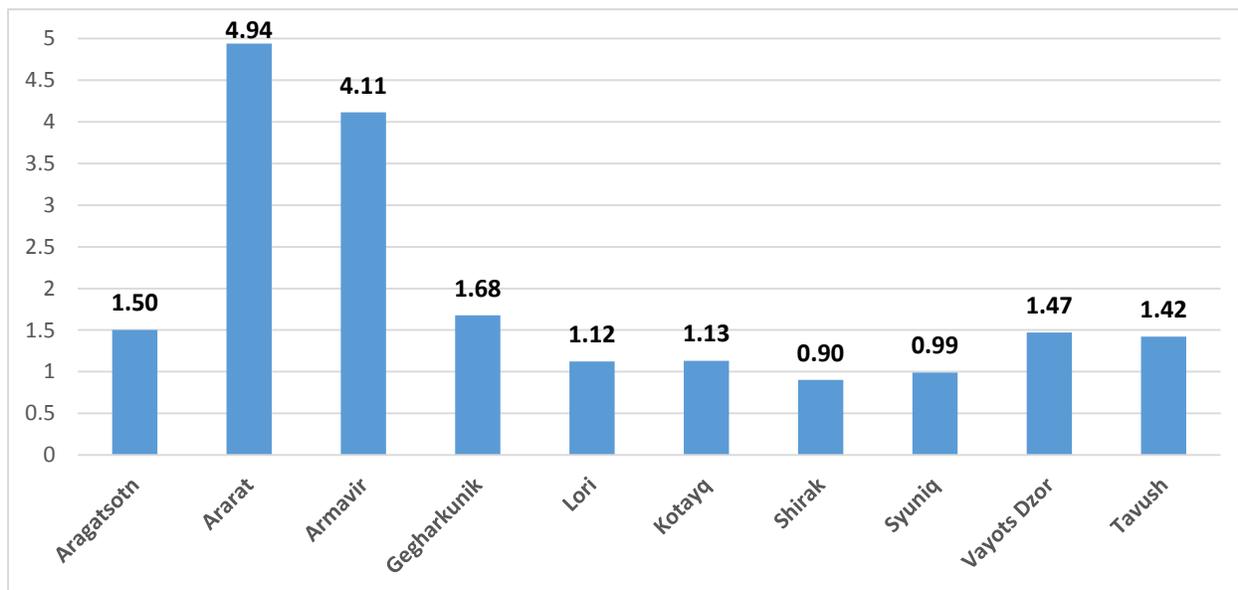
bln. AMD in total in 2014 and 413,8 bln. AMD in 2015, which are respectively 41.5% and 41.6% of the gross agricultural output of Armenia for these years.

**Chart 1.3. The share of the gross agricultural output by RA marzes and Yerevan city, 2014-2015**



The differences of the poverty indicator are huge among the marzes of Armenia. In the mountainous communities of Armenia the rural poverty level increases in parallel with the increase of the elevation of the community above the sea level. This indicator is 34.7% for the settlements with elevation of 1,700 m and above, and 27.1% - for elevations of 1,300 m and below (marzes in Ararat valley). The poverty indicator in the communities located at elevations between 1,300 – 1,700 m is 29.5%. This phenomenon can be fully explained, if we look at the monetary value of the agricultural output received from one unit of the surface by marzes.

**Chart 1.4. Income received from the unit surface (ha) of cultivated lands by marzes (mln. AMD, 2014)**



Ararat and Armavir are the lowest elevation marzes of RA, they are located within the limits of Ararat valley, have the best supply of irrigation water and are close to the biggest local consumer market for the agricultural produce – Yerevan city. The profitability of the agriculture in these marzes is the highest in the area of RA, which is reflected in the relatively high welfare indicator of the rural population.

## Land use

As of 2015, pastures have comprised 51.4% of the agricultural lands. Arable lands comprise 22% of the agricultural lands, out of which, according to the statistical data, 1/3 is not used due to the following reasons: they are close to the dangerous or mined zones near Armenia-Azerbaijan border; some arable lands are far from settlements or are ineffective for agriculture because of irrigation or crop yield issues.

The lack of agricultural machines/mechanisms is also a reason for not cultivating the lands. The drastic increase in the use of agricultural lands (especially the pastures) have been registered since 2005, when the Decree of the Government from 30 December 2004 allowed selling the reserve community lands with prices lower than the market values. Due to this the surface of the agricultural lands has increased for 52%.

**Table 1.1. Total land surface and distribution of agricultural lands by types**

	1995	1997	2008	2009	2010	2011	2012	2013	2014
<b>Total surface of lands, 1000 ha</b>	<b>2974.3</b>								
<b>Agricultural lands</b>	1391.4	1391.4	2121.2	2120.3	2100.9	2077	2052.4	2051	2049.4
arable lands	483.5	494.3	450.4	449.4	448.5	449.2	448.4	448.2	447.5
perennial plantations	74.7	63.8	31.6	32.6	32.9	33	33.4	33.3	33.7
perennial crops, out of which:	832.4	832.9	1244.4	1243.9	1231.4	1195.5	1177.9	1177.1	1175.9
hayfield	138.9	138.9	127.3	127.3	127.1	128.3	121.6	121.8	121.7
pasture	693.5	694	1117.1	1116.6	1104.3	1067.2	1056.3	1055.3	1054.2
other lands	n/a	n/a	394.8	394.4	388.1	399.3	392.7	392.4	392.3

As a result of the privatization of the majority of the agricultural lands, around 340,000 private farms were established in the beginning of 1990s. The lands are divided into more than 1.2 mln. plots: each farm has three separate land plots in average. According to the World bank study of 2007, each private farm has 1.4 ha of land in average, including 1.06 ha of arable land. Especially due to the high level of emigration from the rural communities, it is assessed that the number of the farms has decreased to 200,000. The majority of these farms use the land to earn a living.

As of 1 July 2015 the total area of the irrigated lands has been 154,700 ha – 7.5% of the agricultural lands, which is a drastic decrease when compared to 1990s, when the total area of the irrigated lands was 275,000 ha. The reasons behind such decrease are the poor maintenance of the irrigation infrastructure and its deterioration, decommissioning of the pumping stations due to the high energy prices, the absence of the working capital necessary for the agricultural activities, etc.

The major part of the agricultural lands are cultivated by farms and only 1% - by commercial organizations. Almost the same situation is in the livestock breeding sector - the only difference is that the poultry farming and the production of eggs are done mostly by commercial organizations.

## Horticulture and livestock breeding

The gross agricultural output is divided between two sub-sectors: horticulture and livestock breeding. Table 1.2 shows that Armenia is mostly focused on the horticulture sub-sector.

**Table 1.2. Gross agricultural output by sub-sectors**

Year	2010	2011	2012	2013	2014	2015
<b>Agriculture, bln. AMD</b>	<b>636.7</b>	<b>795</b>	<b>841.5</b>	<b>919.1</b>	<b>993.5</b>	<b>1002.2</b>
Horticulture	392.7	465.1	516	572.8	605.7	606.3
Share of horticulture, %	61.7%	58.5%	61.3%	62.3%	61.0%	60.5%
Livestock breeding	244	329.9	325.5	346.3	387.8	395.9
Share of livestock breeding, %	38.3%	41.5%	38.7%	37.7%	39.0%	39.5%

Armenia mostly cultivates potatoes, vegetables, grains and legumes. Legumes and potatoes are mostly cultivated in Gegharkunik and Shirak marzes, while Ararat and Armavir marzes are the main producers of fruits and vegetables, because they are located in Ararat valley and have favorable climatic conditions and fertile lands.

The main types of legumes and grains cultivated are the wheat and barley, which have comprised 91.3% of the crop in 2014. The cultivation of Emmer wheat has obviously increased during the recent 5 years: its production volumes have increased for 2.3 times in between 2010 and 2014. However, Armenia still provides approximately 1/3 of the grains and legumes consumption.

The production of vegetables and fruits constitutes the biggest part of the horticulture. The total production volume was 2,040.0 tons in 2015 (without potato). Armavir and Ararat marzes produce more than 70% of the crop. Types of vegetables cultivated in Armenia mostly include tomato, which is almost half of the crop, as well as cucumber, cabbage, carrot, onion, garlic, etc.

During the last five years, the crop volume for fruits and berries have increased for 66.5%, and the main stimulator for this was the level of investments in production in this sector, especially the establishment of greenhouses for berry production, as well as the high demand for buying the crops for producing preserves and juices.

An increase has been registered in the production of grapes, which is mostly used for producing wine and cognac. The increase is conditioned by the sustainable demand for buying the crops.

Potato is one of the main crops in Armenia from the food security point of view. About 6.5% of the agricultural lands of Armenia are used for potato cultivation. According to the data for 2015, 42% of the potato crop is produced by Gegharkunik marz and 15% - by Shirak marz.

The cultivation of grapes, tobacco, fruits and vegetables is promising in the horticulture sector of Armenia, which is conditioned by the level of investments in the processing business for these crops and the export volumes. During the recent years the export of the tobacco has increased significantly, together with the food produced in the result of processing the fruits, vegetables and plants.

**Livestock breeding** constitutes 39.5% of the gross agricultural output of Armenia. In this sector as well the major part of the output is provided by the farmer households – more than 90%. Commercial organizations mostly deal with poultry farming and production of eggs and wool.

Between 2011-2015 the production of livestock and poultry has increased for 48.2 thousand tons – by 37.7%, while the production of milk – for 127.1 thousand tons or 21.1%. Gegharkunik and Shirak marzes are leaders in these sectors as well.

The production of eggs is the only sector, where, according to the 2014 data, the 31.8% of the production is provided by the commercial organizations, but the production volumes have kept decreasing during the last five years. The volumes of egg production have generally remained unchanged during 2011-2015.

## Existing issues and challenges

Despite the registered moderate growth, agriculture remains one of the most vulnerable sectors of the Armenian economy, which is in need of a consistent state policy. The sector is still not capable of satisfying the food demand of Armenia and there is a big necessity for government subsidies for the sector. There are numerous issues and challenges, which have not been solved yet.

The issues that exist in all marzes of Armenia are as follows:

- Small, fragmented land plots,
- Lack of appropriate agricultural infrastructure, in particular new (or at least operational) agricultural machines/mechanisms, equipment, processing and storage systems, physical and moral wear-out of that infrastructure,
- Lack of availability and quality of agricultural inputs – seeds, seedlings, pesticides, fertilizers, fuel, as well as specialized agronomic services,
- Insufficient level of the modern agricultural methods and technologies, application of the extensive cultivation methods, low level of specialization,
- Insufficient irrigation,
- Underdeveloped market infrastructure,
- Difficulties in accessing the financial resources,

- Absence of insurance for natural-climatic risks.

**Table 3: Agricultural machines/mechanisms existing in the RA, 2011-2015**

Type	2011		2013		2015	
	Total	Operational	Total	Operational	Total	Operational
Tractors	14558	11327	14783	11656	15115	11891
Trucks	15600	11857	15251	11576	15066	11583
Tractor-based plows	3716	3351	3843	3385	3949	3461
Tractor-based seed drills	1839	1609	1856	1619	1857	1578
Cultivators	2138	1826	2244	1876	2289	1922
Harvesters-presses	1454	1260	1575	1356	1700	1422
Tractor trailers	6026	5278	6099	5339	6142	5336
Combine harvester for grains	1367	1054	1355	1011	1355	1012
Forage harvesting combines	324	230	376	272	407	303
Grain separator machines	433	364	427	372	423	361
Tractor-based grass mowers	1922	1661	2030	1798	2080	1756

As of 1 January 2015 there were 50,383 units of agricultural machines/mechanisms in Armenia, out of which 40,625 or 80.6% were in working condition. As seen from Table 3, generally there has been no drastic increase in the number of agricultural machines/mechanisms during the last five years.

Gegharkunik marz has the biggest number of agricultural machines/mechanisms - 17% of the total number, while Vayots Dzor marz has the lowest number – 4% (excluding Yerevan city).

Besides the big demand for agricultural machines/mechanisms, Armenia is in need for qualified specialists, who are specialized in various sectors of the modern agriculture. Currently in Armenia there are a very limited number of people with narrow specialization in the agricultural sectors requiring specialization, e.x. for greenhouse farming, beekeeping, gardening, etc. There is a big demand also for qualified agribusiness specialists – managers, consultants. The farmers also need improvement and perfection of skills, which is evidenced by the programs implemented during the recent years, with the main component being the skills development through trainings and qualification courses.

The Armenian National Agrarian University is the only higher education institution in the republic, which prepares specialists for the agrifood system. It has branches in Vanadzor, Sisian and Gyumri towns. The university also has an Agribusiness Teaching Center under its management, which has been established in cooperation with the Texas A&M University. The Center prepares

specialists in agribusiness economics. Recently the “Agrarian Management” specialization of the university has received an international accreditation in Germany.

## **State policies and cooperation**

The Ministry of Agriculture of the Republic of Armenia is the republican body of the executive authority, which develops and implements programs for agrifood sector, interstate agricultural cooperation, forestry, horticulture, livestock breeding, irrigation, improvement of land use efficiency and improvement of lands.

The Ministry of Agriculture implements its activities in accordance with the legislative and other legal acts of the Republic of Armenia. “ The State Inspectorate of Agricultural Machinery”, “The State Committee of Water Economy”, “The State Service for Food Safety” and “The Licensing Center” Agency are considered as separate structural units of the Ministry.

The Ministry develops and implements a strategy aimed at the sustainable development of the agriculture, which reflects the current state of the agriculture and covers the primary issues, such as the agrifood sector, the development of the rural communities and the state support to establish a legislative field and favorable conditions for investments in the agricultural sector, for development of the infrastructures of the rural communities and for stimulating the agricultural research and development.

- In accordance with the Decree of the Government of RA N 1476-N dated on 5 November 2010, the Ministry of Agriculture has defined the main directions of the state policy for the 2010-2020 strategy aimed at the development of agriculture and rural settlements. It aims at overcoming the consequences of the financial-economic crisis and the formation of anticrisis mechanisms through the modernization of the branch and the increase of the competitiveness level. Valuing the importance of the agriculture for the economy and the agrifood safety of the country, the Government of the Republic of Armenia emphasizes the importance of the state support. One of the target directions of this strategy is the development of the agricultural cooperatives.

Taking into account the numerous needs of the sector development, the Ministry of Agriculture implements its own sector-aimed programs, as well as seeks to get support from international organizations.

For the efficient implementation of the own projects and in accordance with the Government decree, “The Agricultural Projects Implementation Unit” State Agency, which has implemented 6 agricultural projects since 1997 and “The Rural Areas Economic Development Programs

Implementation Unit” State Agency, which has implemented several projects using mostly the loans provided by “The International Fund for Agricultural Development” mainly directed at the infrastructure improvement.

On behalf of the Government of the Republic of Armenia the Ministry of Agriculture is a member of several international organizations, which have significant contribution to the development of the agriculture and rural communities, such as:

**United Nations Food and Agriculture Organization (UN FAO)**, which mainly deals with the development, monitoring and evaluation of the agricultural sector strategies. It implements projects aimed at the sustainable development of the agriculture and based on the national priorities, supports the implementation of the programs aimed at reducing the impact of negative factors in the agricultural sector and increasing the level of accessibility of information.

**Codex Alimentarius**, which has been established jointly by the UN FAO and the United Nations World Health Organization /WHO/ and is a collection of food standards and related texts. They aim at protecting the health of the consumers and ensuring the fair trade of food.

**International Fund for Agricultural Development (IFAD)**, which primary aim is to combat the rural poverty. Since 1995 6 projects have been implemented or are being implemented with the funding from IFAD for a total cost of 78.2 mln. USD. These funds are particularly concentrated in the most poor rural regions of the country, mostly in the mountainous and borderline regions. The goal of the investments is the increase of the production and productivity through the development of the private sector, which is considered as the main poverty reduction tool.

**The World Bank**, which mission in Armenia is to stimulate the economic growth, create jobs and improve the social services provision sector. This goal is implemented through funding of numerous projects, provision analysis and consulting, which take over a guiding role in the country’s development agenda.

**The Intergovernmental Board for Agrifood Issues of The Commonwealth of Independent States.** The membership in this Council aims at the integration of the agro-industrial production, the organization of the common economic area, the development of the traditional economic, commercial and scientific-technical connections.

**Heifer International** is a non-profit organization, which aims at eliminating the poverty and hunger through coordinated community development based on sustainable values. Heifer provides livestock to the needy families and parallelly organizes agricultural trainings for them. In this case, the objective is to reveal the ways to ensure self-sufficiency.

**International Organisation of Vine and Wine (OIV)**, which is an international organization of a scientific and technical nature. It provides the possibility to its members to be aware of the

measures undertaken in the viticulture and wine-making sectors, which are aimed to support the players of this field (producers, consumers and other participants) in the following issues: harmonization of the existing processes and standards with the international requirements, preparation of new international standards, improvement of the conditions for the production and market entrance for viticulture and wine-making sectors. Armenia is a member of OIV since 2014, with an annual membership fee of 13.500 Euros.

**Organization of the Black Sea Economic Cooperation (BSEC)**, which aims at transforming the Black Sea region into a zone of peace, stability and prosperity through economic cooperation. Armenia is a member of BSEC since 1992.

The Ministry has been cooperating with the **Swiss Agency for Development and Cooperation** since 2011, and have implemented three main projects in Syunig marz aimed at technical and institutional support for veterinary services, development of rural areas of Meghri and development of livestock breeding.

**“Community Agricultural Resource Management and Competitiveness” Second Project** is a large-scale project being currently implemented by the “Agricultural Project Implementation Unit” State Agency of the Ministry of Agriculture of the Republic of Armenia. The main project objectives are to improve productivity and sustainability of pasture and livestock systems in targeted communities, and to increase the marketed production from selected high value agrifood value chains, as well as to strengthen the capacities of the state bodies. In frames of the projects for the sustainable management of pastures/livestock breeding it is planned to establish pasture users’ consumer cooperatives (PUC) in about 100 communities in 8 marzes of Armenia, where significant reserves of pastures are available. Besides, it is planned to form Community Pasture Management and Livestock Development Committee (CPMLDC). The implementation of the project is foreseen during 2015-2019. It is being implemented using the loans from The World Bank “International Development Association” (IDA), «The International Bank for Reconstruction and Development” (IBRD), co-funding from the RA Government and the beneficiaries. The total cost of the project is 42.67 mln. USD.

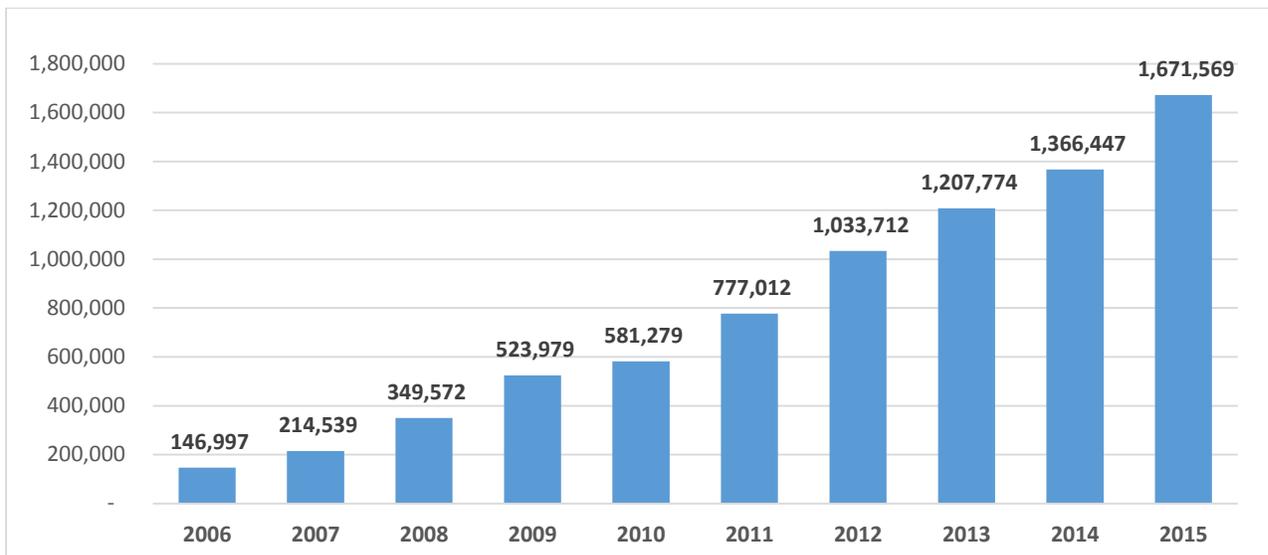
The Ministry cooperates also with various international scientific institutions: The International Plant Genetic Resources Institute (IPGRI) and The International Center for Agricultural Research in the Dry Areas (ICARDA). It has also joined The International Treaty on Plant Genetic Resources for Food and Agriculture and The International Plant Protection Convention (IPPC).

## Provision of loans to the agricultural sector by the financial institutions

Besides the support programs being implemented by the state and international bodies, the agricultural loans provided by the commercial and credit organizations are considered as a key tool for agricultural development, Despite the agricultural loans being considered as a key tool, they contain quite big risks and are quite costly. As seen from Figure 4, the volume of agricultural loans provided has been increasing during the last ten years.

The risk management and organization of monitoring by the commercial banks and credit organizations aimed at the purposefulness of the loans do not have the accuracy necessary to be able to assess the comparative impact of the loans on the agricultural development and the gross domestic product. The gross agricultural output, among other factors, is quite sensitive to funding and the availability of affordable funding can contribute significantly to the further growth of the agriculture.

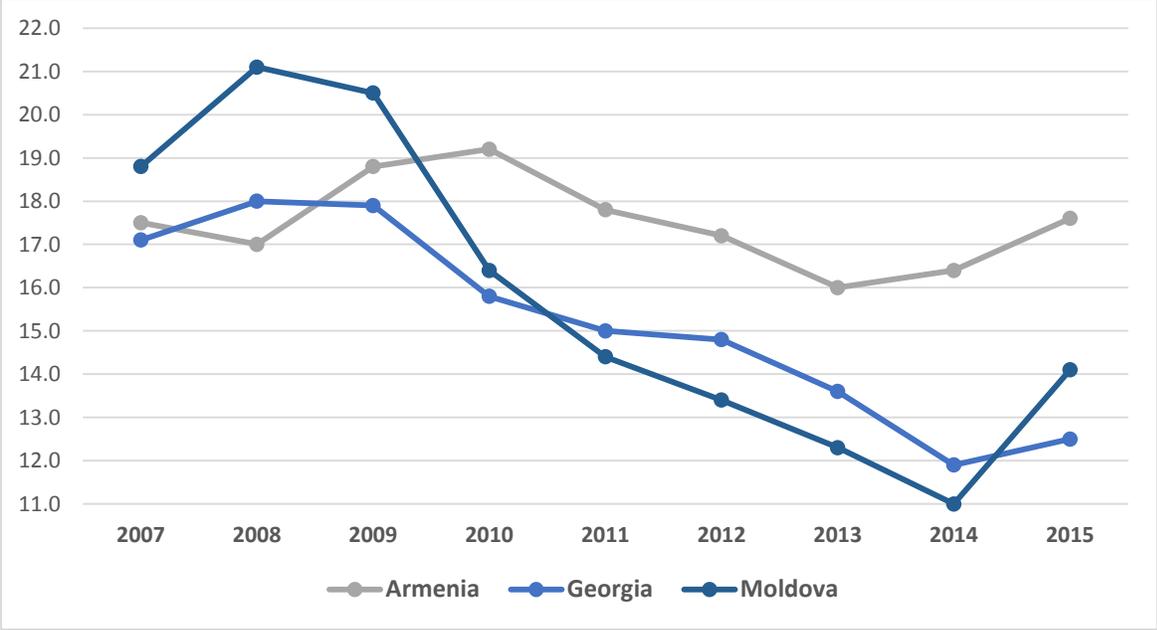
**Chart 1.4. Agricultural loans provided to the residents by the commercial banks of RA, 2006-2015, mln. AMD**



Taking into account the unfavorable conditions for the development of the agriculture in RA, i.e. the natural-climatic conditions, the low crop yield and the absence of insurance, the conditions for the provision of the loans, through which the funding is distributed among the farms, are also very important. The nominal interest rates are high for the loans both in AMD and in foreign currencies – they fluctuate between 8-24% annually, and are mostly provided against a security. The actual interest rates of the mentioned agricultural loans, as revealed by the “Financial Assistant” system of the Central Bank of RA, start with 12% and can reach up to 70% annually.

The agricultural loans provided are equally distributed between the horticulture and livestock breeding. For a comparison, we would like to present the statistics provided by The World Bank for the average interest rates of loans in Armenia, Georgia and Moldova (the data for Kazakhstan is not available).

**Chart 1.5: Average interest rates of loans (Armenia, Georgia and Moldova)**



**Cooperatives and commercial organizations**

There are problems and constraints for reaching economic profitability in the agricultural sector, which are not feasible and, sometimes, nor realistic to solve individually. The best tool for their solution can be the formation of a group of people with common objectives and the cooperatives are the vivid example of such groups. The maximum profit is not the only main goal of creating a cooperative. The latter is meant to protect certain interests and rights of the farmers as well. The agricultural cooperatives are created to solve issues such as: mobilizing more resources, creating more beneficial possibilities for procuring goods and services, more efficient business management, benefitting from opportunities, which require big funds and resources.

Judging from the nature of the problems existing in the agricultural sector of Armenia it is clear the successful development of the sector will be changed significantly by the proliferation and development of cooperatives. Numerous state and international projects are aimed at the proliferation and stimulation of the cooperatives, which can provide a possibility for the

improvement of the sector. The role of the farmers' organizations and cooperatives are also given an importance by the Government of RA in the state strategic programs.

After the collapse of the USSR, the existing agricultural cooperatives also collapsed in the post-Soviet Armenia together with the other Soviet structures. The membership in those agricultural cooperatives was compulsory.

New consumer cooperatives were established in 1993. As of 1 January 2015, according to the data from the State Register, 3593 production and 389 consumer cooperatives, 167 farmers' collective economies were registered. The agricultural cooperatives and the consumer cooperatives are the ones involved in the agricultural activities, and the vast majority of these have been established through the support in frames of the state development projects and various grant programs. 147 "Pasture Users Association" consumer cooperatives have been established in frames of the "Community Agricultural Resource Management and Competitiveness" project (CARMAC, CARMAC 2), with the main objective of increasing the efficiency of the livestock breeding, i.e. the incomes of the livestock breeding farmers, through the management and improvement of pastures.

The works of several large international organisations are aimed at the development of cooperatives in Armenia. The main component of the projects being implemented in the agricultural sector is the establishment of a consumer cooperative in the result of the project, because they ensure the sustainability of the projects.

Both international and local non-governmental organizations, such as the Armenian offices of Oxfam, World Vision, Umcors, Positive Planet, and the Shen NGO, have had a huge contribution to the development of the cooperatives in Armenia and currently continue their activities. Several projects funded by the European Union (ENPARD) and the UN development projects support the development and proliferation of the cooperatives. The projects of the above mentioned organizations are implemented in cooperation with both the local self-governance bodies, the Ministry and with each other, mostly on co-financing terms.

The Armenian office of OXFAM has commenced its activities since 1994. OXFAM Armenia, in cooperation with its partners – "BSC" Business Support Center, "The Scientific Center of Vegetable and Industrial Crops" SNCO and "New Horizon" Universal Credit Organization, implements various social and agricultural development projects in the villages of Tavush and Vayots Dzor marzes of Armenia, which are aimed at the improvement of the small farms, the establishment and strengthening of agricultural cooperatives and the access to markets for their produce. 21 consumer cooperatives have been established with the support of OXFAM Armenia in Aknaghbyur, Haghtanak, Tsaghkavan, Yenoqavan, Lchkadzor, Gosh, Ditavan, Getahovit, Achajur, Sevqar, Hovq, Ptghavan, Sarigyugh, Aygehovit, Khashtarak, Koghb communities of Tavush marz

and Azatek, Zedea, Gomq, Zaritap communities of Vayots Dzor marz. The members of the consumer cooperatives mainly include the producers of fruits and vegetables, which have gained access to the modern agricultural technologies and equipment (sun drying facilities, greenhouses, drip irrigation systems, refrigerator equipment for storing fresh fruits and vegetables, non-traditional crops and their cultivation technologies, sun drying facilities for producing dried fruits, etc.) due to the activities of the cooperative. Practical trainings have been organized about the operation and application of the new technologies.

The mission of the World Vision international benevolent organization is to improve the lives of the children and their families and communities living in poverty. The support for the economic development of communities is a component of the 13 “Regional Development Projects” of World Vision. In frames of the Economic Development project 4 consumer cooperatives have been established in Talin region: in Arteni (sun drying facility for fruits), Tsamaqasar (milk collection facility), Vosketas (milk collection facility) and Zarinja (union for agricultural machines) communities. In frames of the projects, support is provided mostly to the small initiative groups. Through the capacity building of these groups it becomes possible to establish cooperatives with the own initiative.

UMCOR international organization has started its activities in Armenia in 1997 and implements projects aimed at the development of the agriculture. The organization operates mainly in Ararat, Armavir and Vayots Dzor marzes. The implemented projects tend to develop the capacities of the existing cooperatives, as well as to establish new agricultural consumer cooperatives. In frames of the projects, agricultural consumer cooperatives have been established in Sali, Vernashen, Gladzor and greenhouse cooperatives – in Agarakadzor, Akunq, Nor Yerznka communities.

Recently, “Positive Planet” international organization, in cooperation with the Yerevan Brandy Company (Pernod Ricard) and the Fund For Armenian Relief, has initiated a capacity building project for the farmers. In particular, the company has supported its small-scale vine-growers in Tavush marz to establish six cooperatives, which will help them to be independent and improve the stability of their income. Due to this project, the cooperative members have gained access to the capital investments, which are extremely necessary for the better cultivation of their own vineyards. The project has commenced in 2014 and, since then, cooperatives have been created in Aygehovit, Paravaqar, Varagavan, Artsvaberd, Tavush, Verin Tsaghkavan communities. It is planned to establish similar cooperatives in other communities of Tavush marz, as well as in the communities of Ararat marz.

As for the production cooperatives, no information has been collected about their activities in frames of this study, because they are not involved in the agricultural production and agricultural service sectors.

Several farmers' organizations operate in Armenia: Federation of Agricultural Associations, Farmers' National Union, Union of Meat Producers, Union of Milk Producers, Agrarian Peasants Union, Farmers' Movement, Union of Agricultural Cooperatives, Armenian Organic Agriculture Foundation, Greenhouse Association, etc. Despite the existence of numerous associations, the level of organization and cooperation is still far from being perfect. Many of them are grant-oriented, do not have an entrepreneur' mindset, which is necessary to produce and sell the products in the market successfully. Speaking about the farmers' cooperatives, efforts have been made during the recent years to stimulate the establishment and growth of such cooperatives. Their weaknesses include the absence of a clear vision, the poor management and the financial sustainability. It is necessary to focus on the development of their potential and capacities.

## **Laws and legal acts regulating the activities of the cooperatives**

Despite the development of the agriculture being one of the priority issues for the Government of RA, there is no united law regulating the agricultural sector. Currently, the sector is regulated by numerous laws and legal acts, as well as international agreements. The main laws regulating the agricultural sector are as follows:

- RA Law “On the privatization of the state assets”
- RA Law “On food safety”
- RA Law “On Registration, Standardization of Food Enterprises”
- RA Law “On State Support for Small and Medium Enterprises”
- RA Law “On Organic Agriculture”
- RA Law “On Agricultural Cooperatives”

The latter – the RA Law “On Agricultural Cooperatives”, has been adopted on 21 december 2015 and regulates the formation and the activities of the farmers' cooperatives/producing organizations. This is probably the only complete and comprehensive law regulating the activities of the cooperatives. Besides this law, there are several legal acts linked with the activities of the cooperatives, namely:

1. The Civil Code of RA (HO-239)
2. RA Law “On Consumer Cooperation” (HO-91)
3. Ra Law “On Water Users's Associations and Unions of Water Users's Associations” (HO-374-N)
4. RA Law “On Agricultural Credit Clubs” (HO-332)
5. RA Law “On State Registration of Legal Entities, State Recording of the Separate Units of Legal Entities, Institutions and Individual Entrepreneurs” (HO-169)

6. The Dictation of the RA President dated on 18 May 2011 “About approving the concept for ensuring the food security of the Republic of Armenia” (NK-91-N)
7. The Decree of the RA Government N 1522-N dated on 13 October 2011 “About approving the action plan arising from the concept for ensuring the food security of the Republic of Armenia”
8. The Decree of the RA Government N 1270-N dated on 6 November 2009 “About approving the sample form for the contract signed for joint activities by the citizens occupied in agricultural production”
9. The Decree of the RA Government 1476-N dated on 4 November 2010 “About approving the sustainable development strategy for the rural communities and agriculture of the Republic of Armenia for 2010-2020 and approving the list of actions ensuring the implementation of the sustainable development strategy for the rural communities and agriculture of the Republic of Armenia for 2010-2020”
10. The Protocol Decree of the RA Government N43 dated on 3 November 2011 “About approving the concept for the consolidation of the farms in the Republic of Armenia and approving the time-schedule of the actions ensuring the implementation of the concept”
11. The Decree of the RA Government N 10-N dated on 9 January 2014 “About approving the activities plan and the priority issues of the RA Government for 2014”.

The above mentioned laws and legal acts define the certain relationships linked with the activities of the agricultural cooperatives, whereas the RA Law “On Agricultural Cooperatives” defines and regulates the following:

- The objectives of the agricultural cooperative – reaching the rational use of the available resources through cooperation, satisfaction of the material and other needs of the members, increasing the efficiency of the implementation of new initiatives and the activities;
- The directions of the agricultural cooperatives’s activities – the production and sales of agricultural products, the provision of necessary agricultural supplies and means, the provision of services, the processing of the agricultural produce, the implementation of different directions of activities, and incorporating separate units – branches and representations.
- The cooperative associations, which can be created by the cooperatives for the purposes of the coordination of their activities, the representation and protection of the common interests, the provision of informational, consulting services, improving the qualifications of the members and the staff of the cooperative, implementation of market analysis, the technical support and strengthening of the capacities of the member cooperatives, the efficient implementation of monitoring and other activities in the agrifood system.
- The establishment of a cooperative.

- The foundation of the cooperative and the founders' meeting.
- The charter of the cooperative, which defines the name, location, purpose of operation, the formation of the obligatory and voluntary reserve funds of the cooperative, etc.
- The state registration of the cooperatives, which is implemented by the legal entities state registration body in accordance with the procedure defined by the RA Law "On State Registration of Legal Entities, State Recording of the Separate Units of Legal Entities, Institutions and Individual Entrepreneurs"
- The members of the cooperatives – their rights and responsibilities. Legal entities and physical persons of age 16 and above are eligible to become cooperative members.
- The procedure for becoming a cooperative member and termination of membership.
- The management of the cooperative – the management bodies (higher body, executive body, supervisory board), the general meeting and the powers thereof, the procedure for calling a general meeting, the procedure for decision making at the general meeting.
- The executive body (the Board, the Chairman) – election, terms of office, functions, etc.
- Controller and the control committee, as well as the supervisory board.
- The assets of the cooperative – sources of the asset acquisition, shares, distribution of the surplus and profit, the material responsibility of the members.
- The reorganization and liquidation of the cooperative, the liquidation procedure.
- The state support in the agricultural cooperation sector – the relationships of the state governing and local self-governing bodies, the directions of the state support.

The existence of a comprehensive regulatory legislative document in this sector is important, as it will allow improving the forms of doing business applied in the agrarian sector and implementing a coordinated state policy aimed at the development of cooperation. The following outputs are anticipated from the application of the law:

- Clarifications in the main directions of the state policy for the development of agricultural cooperation
- Stimulation of the formation of agricultural cooperatives
- Improvement of efficiency of agricultural cooperatives' activities, as well as competition among businesses in the sector through joint solution of production, supply, sales, etc.
- Improvement of the food security level of the country
- The activities of cooperatives will also contribute to the development of rural communities.

Despite the development of the cooperatives being one of the priority objectives for the Government of RA, the acting tax policy, laws, sub-legislative acts do not support the formation, activities and development of the farmers' cooperatives/producing organizations in any way. In the acting legislation of RA there is no norm at all granting them tax-related or other privileges. Moreover, the consumer cooperatives, having a status of non-commercial organization, do not

have the right to supply goods or provide services to non-members, which often worsens the cost effectiveness of their activities and, thus, their vitality.

As for the RA Law “On Agricultural Cooperatives”, which regulates the activities of the agricultural cooperatives, although it’s regulation is complete, it again does not foresee any privileges. In case of starting commercial activities, the agricultural cooperative is viewed as an entity subject to full taxation and operates in the tax framework, which is typical for the business.

As per information provided by the State Register of Legal Entities, since entry into force of the new Law “On Agricultural Cooperatives” in January 2016, 45 agricultural cooperatives have been registered. These cooperatives were established in frames of ENPARD-Armenia project funded by the European Union.

Despite substantial progress in terms of legal regulation, in particular, the adoption of the Law “On Agricultural Cooperatives” that mostly reflects best international practices, the law has certain shortcomings that hinder the activities and sustainable development of the cooperatives. Namely, the law does not specify the legal status of the cooperatives, i.e. whether they are commercial or non-commercial entities. Therefore the tax framework, within which the cooperatives are supposed to operate, is not defined. There are also no distinctions in taxation policies for internal (non-profit) and external transactions. Due to these shortcomings of the current law, the cooperatives established with support of ENPARD filed requests to the tax authorities regarding termination of cooperatives’ activities immediately after the registration process was concluded. Organizations promoting agricultural cooperation have since applied to the Government, requesting appropriate legislative changes, however the issue has not been resolved yet.

Besides the legislative framework reforms, the economic reforms, such as the privileges granted to the cooperatives during the state procurement, discounts for procuring agricultural machines/mechanisms, support in sales and marketing of the products, etc., will also be of a significant importance.

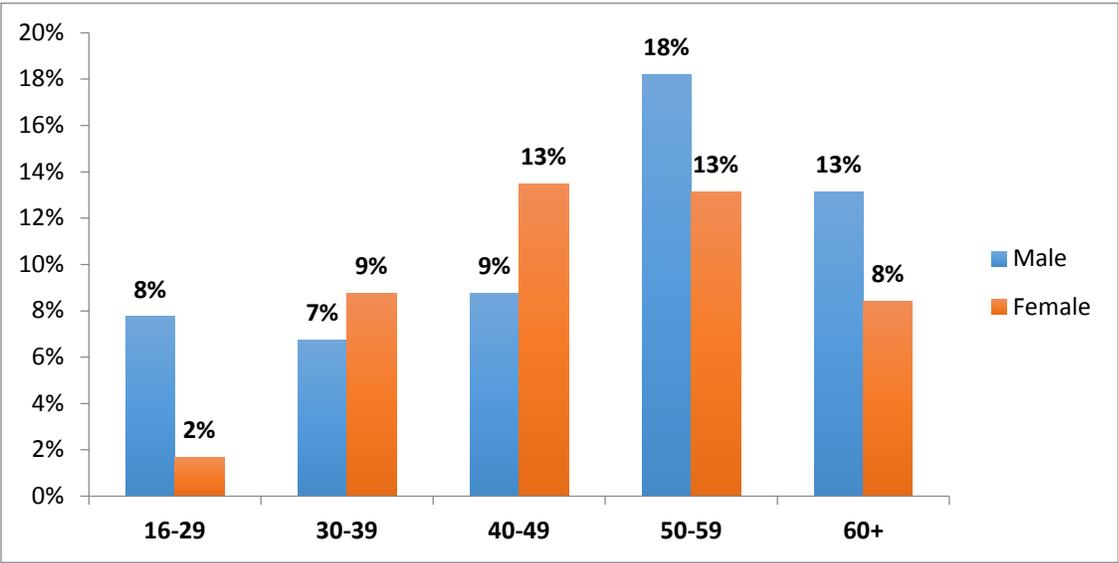
# CHAPTER 2. QUANTITATIVE SURVEY RESULTS

## Social-demographic profile of the respondents

As mentioned in the Introduction, the survey covered 300 households engaged in horticulture, of which 100 were members of agricultural cooperatives. The interviews were conducted with the household member who was directly involved in production and/or sales of the main agricultural produce and was best informed of all details.

54% of the respondents were male and 46% were female, with the mean age of the respondents being 49. Chart 2.1 summarizes the gender and age breakdown of the respondents.

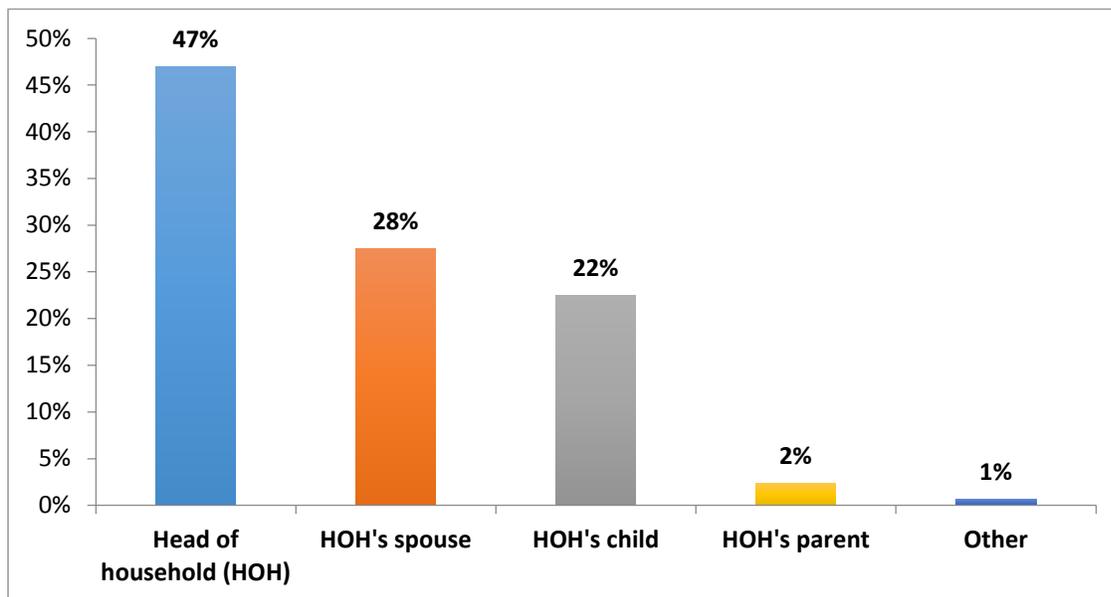
**Chart 2.1. Gender and age breakdown of the respondents**



The sampled households consisted of an average of 5 household members.

The respondents were mostly heads of households or their spouses (see Chart 2.2 on the next page). 83% of the surveyed heads of households were men, and 17% were women.

**Chart 2.2. Respondents' status in the household**

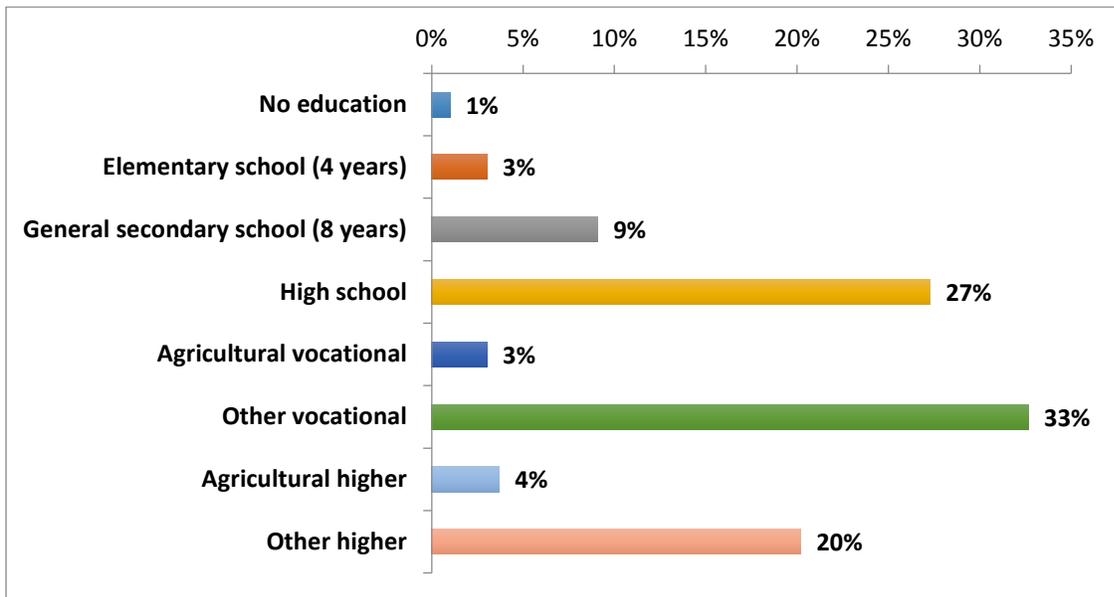


Heads of surveyed households have been involved in agriculture for an average of 28 years, while the respondents themselves have been engaged in horticultural production for an average of 22 years (at that, the average duration of engagement in horticulture was the same among members of cooperatives and non-members).

60% of the surveyed heads of households have professional education (vocational or higher), with only 7% holding a degree in agriculture (see Chart 2.3 on the next page). Since the absolute number of respondents having professional education was relatively small, while professional backgrounds were very diverse, below is a list of most frequently encountered professions:

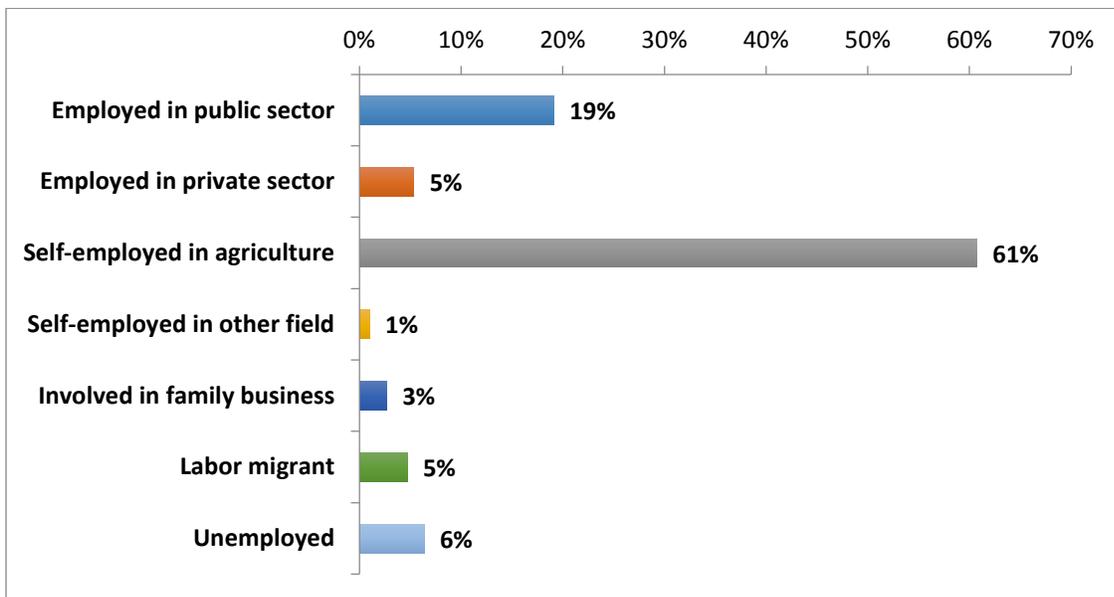
- Driver
- Teacher
- Construction specialist
- Engineer
- Accountant
- Mechanical engineer
- Electrician
- Veterinary

**Chart 2.3. Level of education of the head of household**



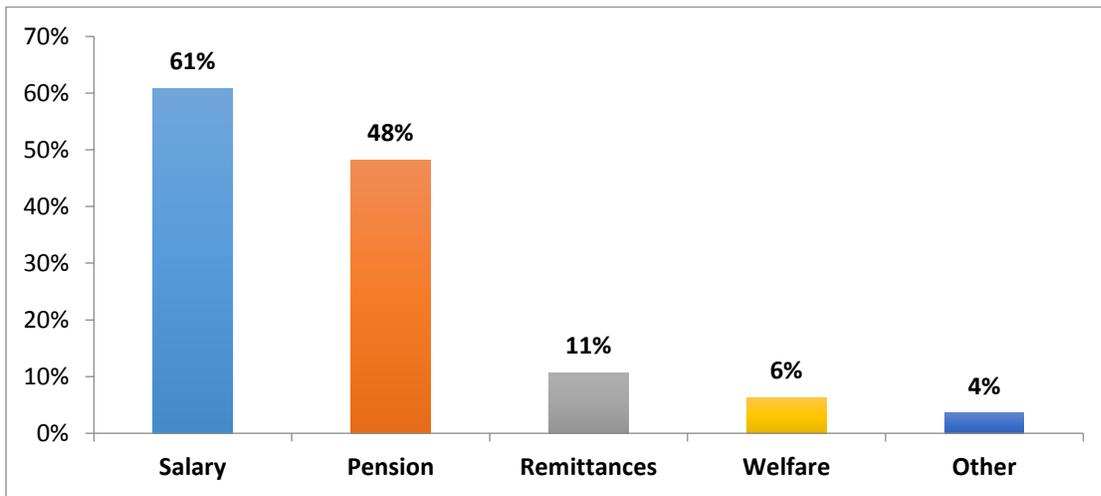
At the moment, the majority of the heads of households (61%) are self-employed in agriculture.

**Chart 4. Main occupation of the head of household**



The overwhelming majority of the surveyed households (85%) have other sources of income besides agriculture; mostly salaries and pensions (see Chart 2.5 on the next page).

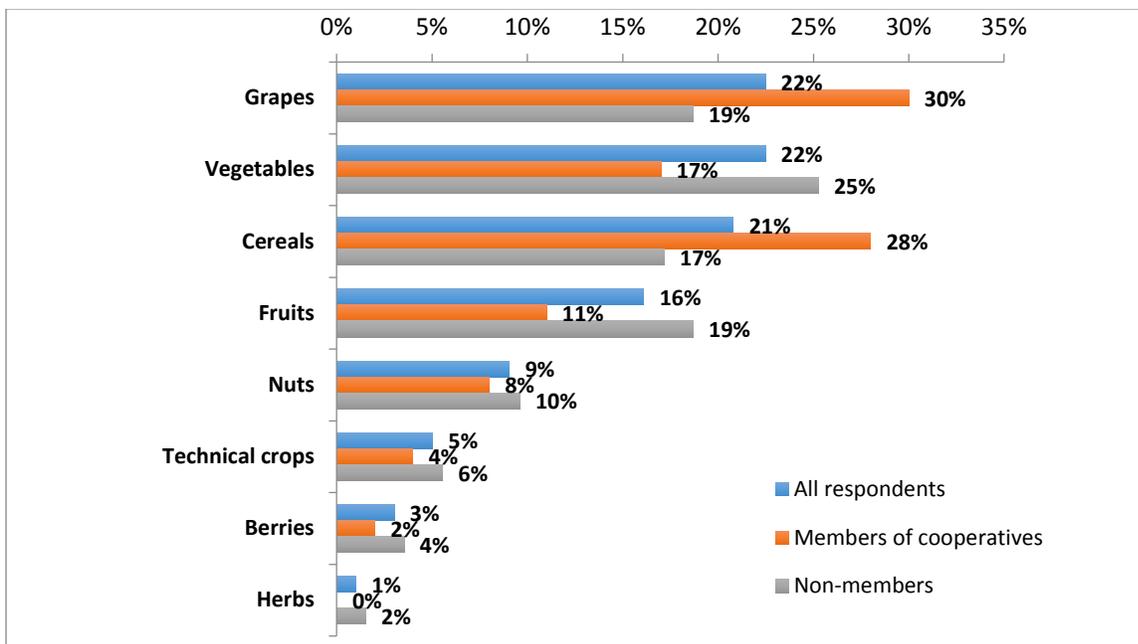
**Chart 2.5. Sources of household income (besides agriculture)**



## Main horticultural produce

According to survey results, the four main fields of horticultural production (based on income) are grapes, vegetables, cereals and fruits. At that, production of grapes and cereals is more common among members of cooperatives, while production of vegetables and fruits is more common among non-members (see Chart 2.6).

**Chart 2.6. Main fields of agricultural production (based on income)**



We also asked the respondents to list the specific crops they grow. Below are the frequently encountered responses within the four main fields of agricultural production.

### **Grapes**

- Technical varieties (60% of grape producers)
- Table varieties (49% of grape producers)

### **Vegetables**

- Potatoes (52% of vegetable producers)
- Beans (30% of vegetable producers)
- Tomatoes (21% of vegetable producers)
- Cucumbers (15% of vegetable producers)
- Beetroots (12% of vegetable producers)
- Cabbage (10% of vegetable producers)

### **Cereals**

- Wheat (85% of cereal producers)
- Barley (71% of cereal producers)

### **Fruits**

- Apricots (52% of fruit producers)
- Apples (38% of fruit producers)
- Peaches (25% of fruit producers)
- Cornelian cherries (17% of fruit producers)
- Pears (15% of fruit producers)
- Cherries (15% of fruit producers)
- Plums (13% of fruit producers)

## **Farm characteristics**

The surveyed households have, on average, 2.9 hectares of land, of which 2.7 hectares of arable land and 0.2 hectares of homestead. Notably, the average land plots of farmers in communities that have agricultural cooperatives are much larger than in communities with no agricultural cooperatives (respectively 3.3 hectares and 2.1 hectares).

However, while members of cooperatives have, on average, larger land plots than other farmers in their communities, the difference is not significant (3.6 hectares vs. 3 hectares).

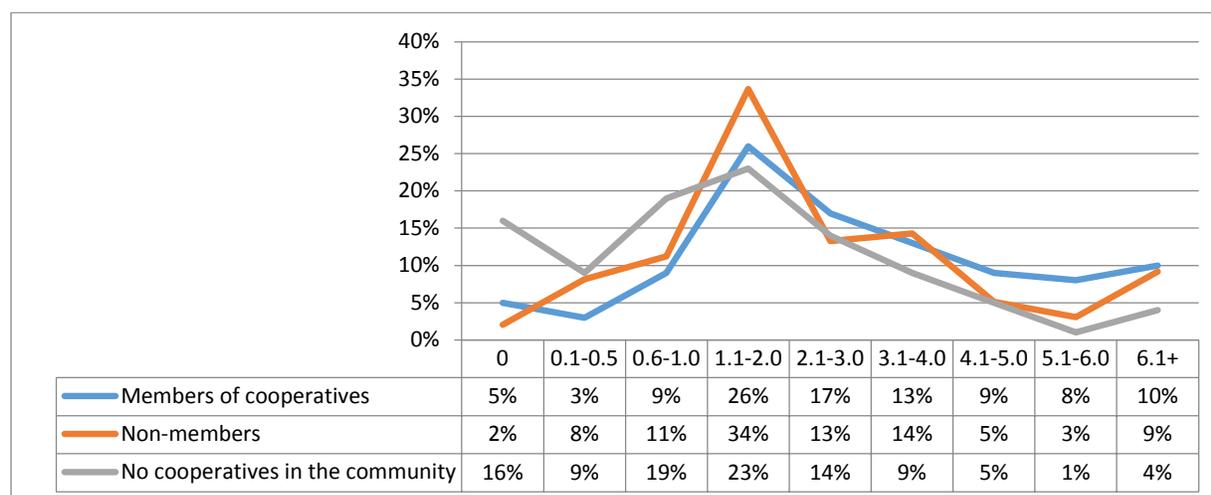
**Table 2.1. Average land of the surveyed households (2016)**

Land (hectares)	All respondents	Members of cooperatives	Non-members	No cooperatives in the community
<b>Arable land</b>	2.71	3.34	2.86	1.91
of which <i>owned</i>	2.09	2.37	2.17	1.71
<i>rented</i>	0.48	0.67	0.59	0.18
<i>used for free</i>	0.14	0.30	0.10	0.02
<b>Homestead</b>	0.20	0.25	0.17	0.19
<b>Total land</b>	2.91	3.59	3.03	2.10

At the same time, Chart 2.7 shows that the majority of members of cooperatives (57%) have over 2 hectares of arable land, while land plots of this size are used by 45% of other farmers in the same communities, and only 33% of farmers in communities with no agricultural cooperatives.

Hence, the above data allows assuming that the size of the land plot affects both the decision to become a member of an existing cooperative and the motivation to establish a cooperative, however the effect on the latter is more significant.

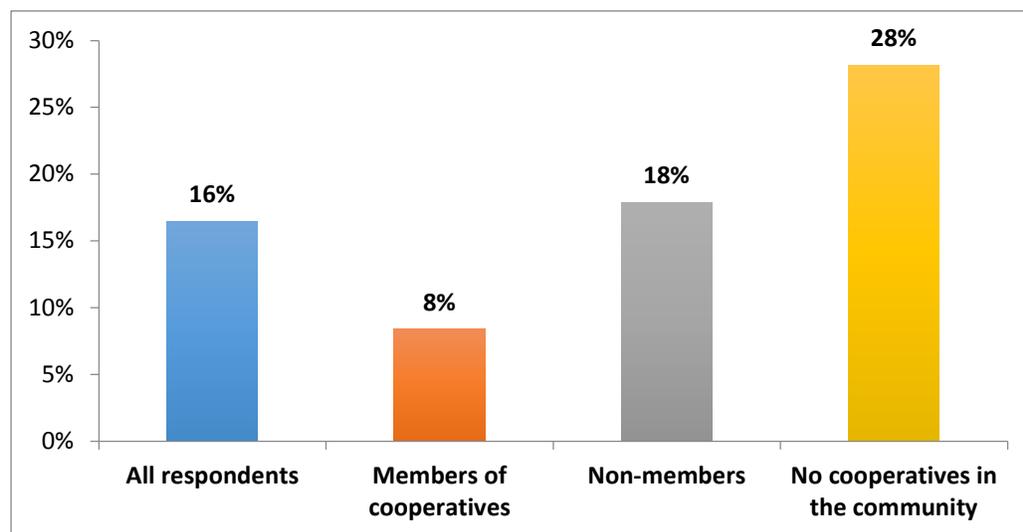
**Chart 2.7. Arable land of the surveyed households (hectares, 2016)**



We then asked the respondents to provide the structure of the land they use (by type of horticultural production).

Firstly, it is worth mentioning that an average of 16% of the respondents' land was not cultivated. At that, the share of uncultivated land was found to be lowest among members of cooperatives.

**Chart 2.8. Share of uncultivated land**



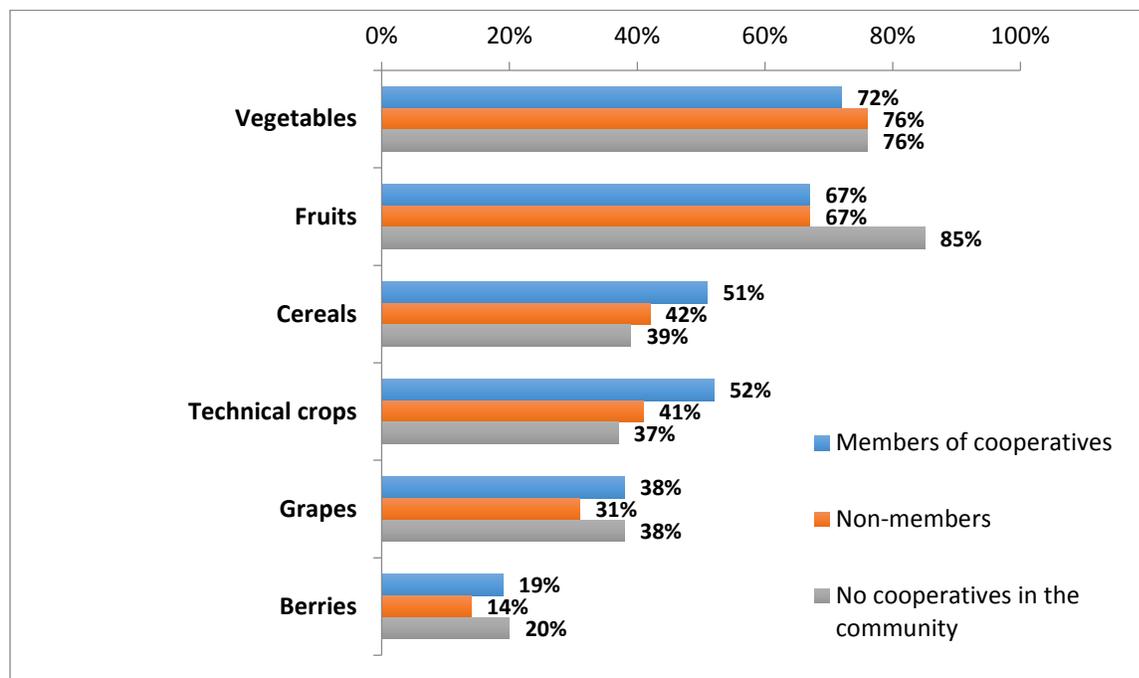
The most frequent reason for not cultivating [parts of] the land was impossibility of irrigation (27%). Other reasons included lack of agricultural machinery, unfavorable location of the land (distance, unsafe due to it being located near the border with Azerbaijan), bad quality of the soil, lack of financial resources and health issues of the household members.

Table 2.2 on the next page summarizes the data on the structure of the land (per household, average), while Chart 2.9 shows the shares of households engaged in various fields of horticultural production (as either their main or secondary field of production).

**Table 2.2. Structure of the land used (average, per household)**

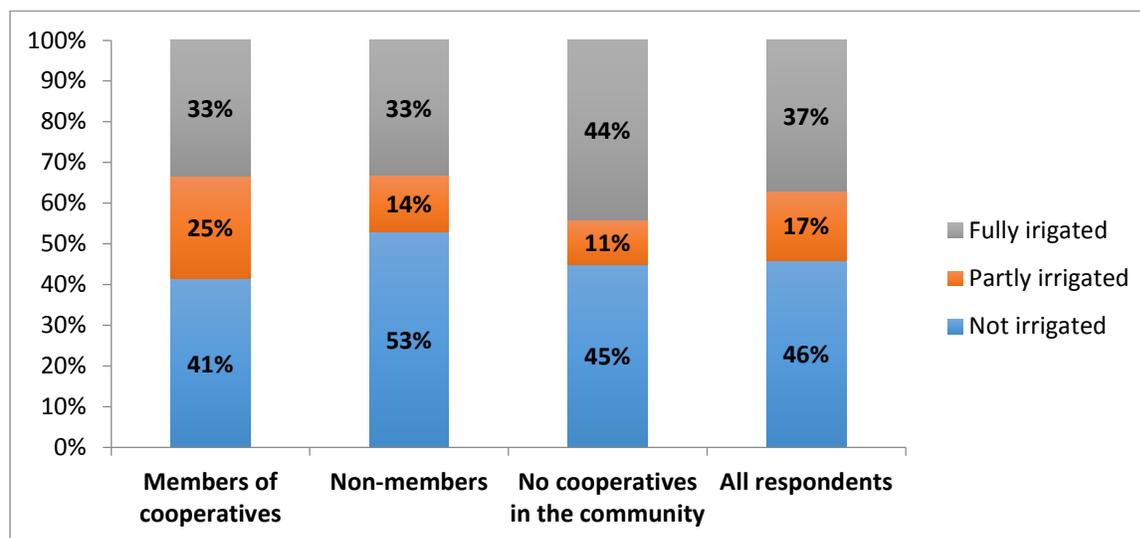
Land (m <sup>2</sup> )	All respondents	Members of cooperatives	Non-members	No cooperatives in the community
Cereals	10,300	15,800	11,400	4,000
Technical crops	7,500	10,000	7,500	5,100
Vegetables	2,300	1,800	2,000	3,000
Fruits	1,800	2,300	1,500	1,600
Grapes	1,700	2,100	1,800	1,200
Berries	300	300	500	100
Other (nuts, flowers, seeds, seedlings, herbs)	300	700	200	100
Uncultivated land	4,800	3,000	5,400	5,900
<b>Total land</b>	<b>29,000</b>	<b>36,000</b>	<b>30,300</b>	<b>21,000</b>

**Chart 2.9. Shares of households engaged in each field of horticultural production**



As per the results of the survey, 78% of the homesteads are fully irrigated, 4% are irrigated in part, while 18% are not irrigated. At the same time, on average, only 45% of the respondents' total arable land is irrigated (see Chart 2.10 on the next page).

**Chart 2.10. Irrigation of arable land**



As shown, in the communities with established agricultural cooperatives, approximately 60% of members of the cooperatives said their arable land was at least partly irrigated, while the majority of non-members (53%) said their land was not irrigated. However, it is unclear whether membership in a cooperative allowed increasing the share of irrigated land, or if farmers who had already to a certain extent solved the irrigation issue were more inclined to join a cooperative.

According to the results of the survey, each farm engages an average of 3.6 workers, of which two thirds work part time, and one third works full time. Notably, members of cooperatives, engage an average of 5 workers, while the rest of the sampled households engage only 3 workers.

The average total turnover of the surveyed farms (cattle breeding included) in 2015 was 945,000 AMD (approximately 2,000 USD). Remarkably, the annual turnover of members of cooperatives was almost twice higher than that of non-members, averaging 1,370,000 AMD (see Table 2.3 on the next page).

**Table 2.3. Turnover of the farms (2015)**

Turnover (AMD)	Members of cooperatives	Non-members	No cooperatives in the community	All respondents
Up to 100,000	9%	21%	23%	18%
101,000-500,000	33%	34%	41%	36%
501,000-1,000,000	20%	24%	18%	21%
1,000,001-2,000,000	19%	14%	12%	15%
2,000,000+	18%	6%	6%	10%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Average</b>	<b>1,370,000</b>	<b>770,000</b>	<b>700,000</b>	<b>945,000</b>

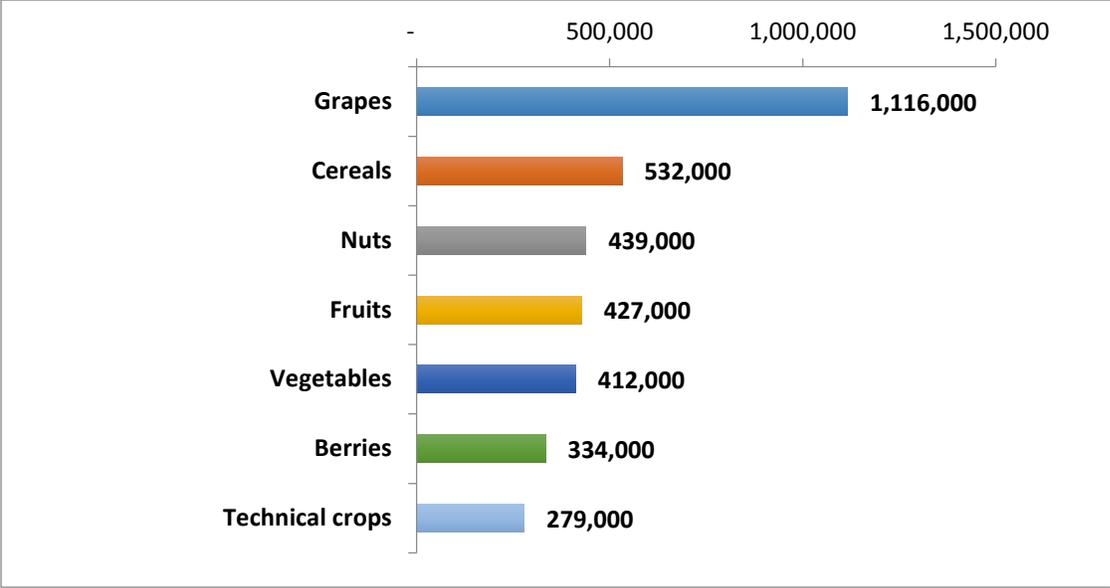
Main horticultural production accounted for an average of 66% of the farms' total turnover (or 624,000 AMD), with the share being almost identical among the three groups of respondents.

**Table 2.4. Turnover accounted for by the main horticultural production (2015, average, AMD)**

Group	Turnover accounted for by the main horticultural production	Share in total turnover
Members of cooperatives	877,000	64%
Non-members	524,000	68%
No cooperatives in the community	469,000	67%
<b>All respondents</b>	<b>624,000</b>	<b>66%</b>

Chart 2.11 on the next page summarizes the data on average turnover broken down by main field of horticultural production.

**Chart 2.11. Turnover by main field of horticultural production (2015, average, AMD)**



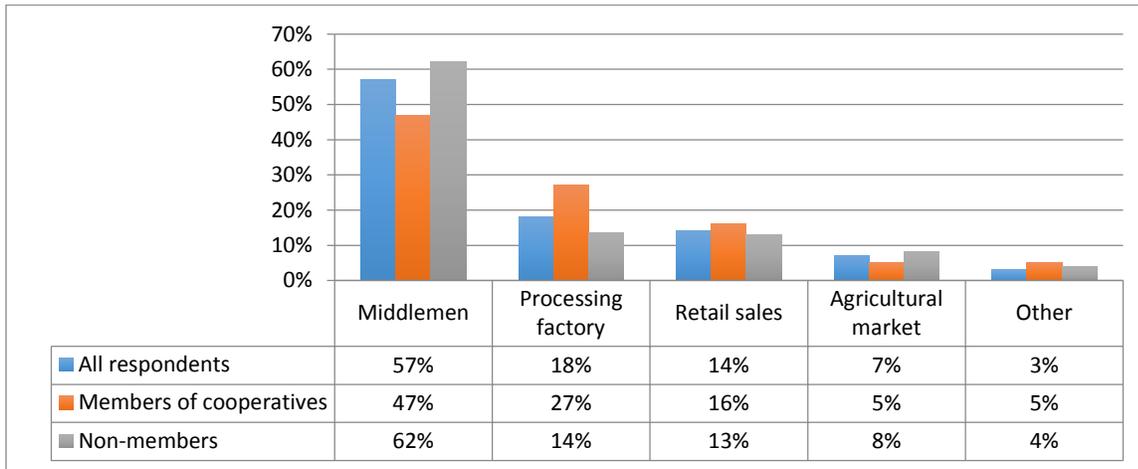
**Main market outlet and buyer relationships**

The majority of surveyed households (57%) reported that the main buyers of their horticultural produce are middlemen, while for roughly every fifth household (18%) the main market outlet is processing factories.

Notably, the share of farmers who mainly sell their produce to processing factories is twice higher among members of cooperatives than among other respondents (see Chart 2.12 on the next page).

The more frequently encountered other market outlets included retail sales to end consumers (neighbors, relatives, sales on the streets/highways, etc.) and agricultural markets.

**Chart 2.12. Main market outlet**

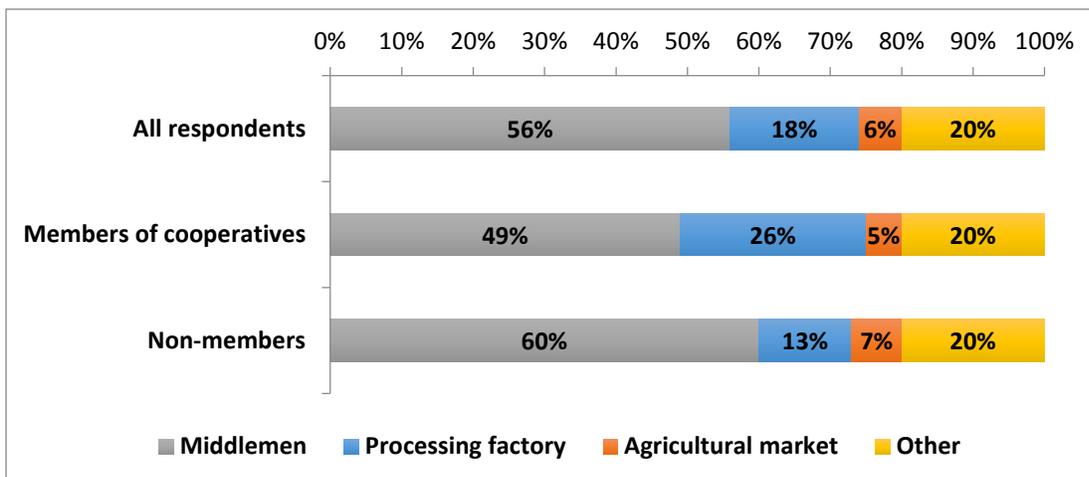


Over two thirds of the respondents (71%) said the main buyer collects the product from the farm, while 29% bring the product to the main buyer. This breakdown is almost identical among members of cooperatives and non-members.

In the overwhelming majority of cases (83%) the main buyer pays for the product upon delivery, while in 16% of cases (mostly processing factories) the buyer pays for the product in an average of 49, but mostly within 30 days after delivery. Cases when the payment is made before delivery (by way of a prepayment or a loan) are very rare (1%).

As per the results of the survey, in 2015, an average of 56% of the farmers' main horticultural produce was sold to middlemen, 18% was sold to processing factories, 6% was sold in agricultural markets and 20% was traded through other channels.

**Chart 2.13. Sales of the main horticultural product (2015)**

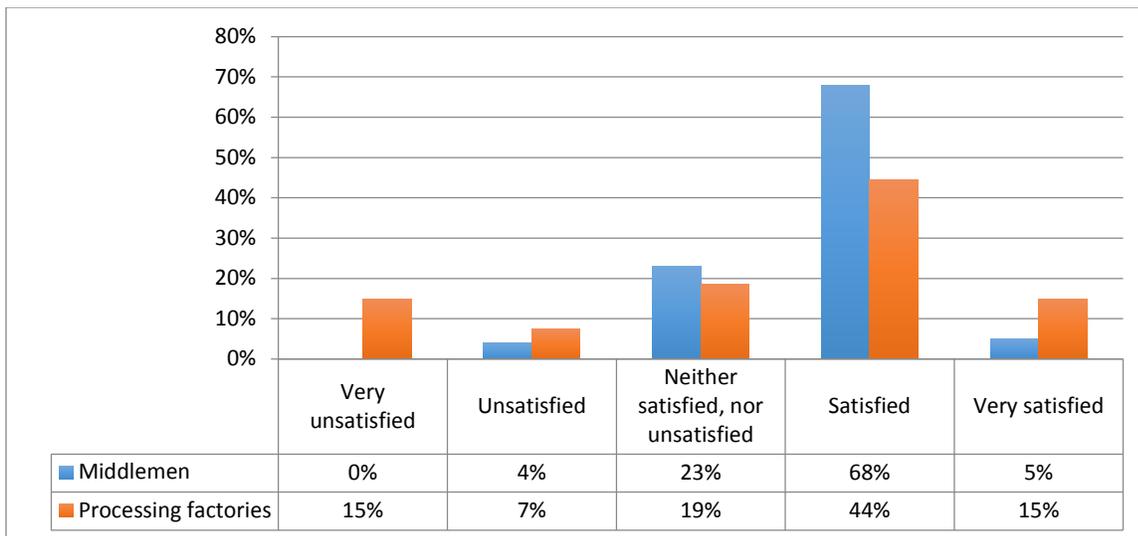


On average, the farmers dealt with one processing factory, three middlemen and one agricultural market (the averages are calculated for farmers who had trade relations with each buyer). No differences were observed between members of cooperatives and non-members in terms of the average number of buyers in each category.

According to the respondents' estimates, their main horticultural product realistically has an average of 3 potential (wholesale) buyers; at that, only 27% of the farmers thought they had 4 or more potential buyers.

Two thirds of the respondents were satisfied or very satisfied with the relationship with their main buyer (58% and 9% respectively). At the same time, the level of satisfaction with middlemen was found to be higher than with processing factories, with the share of satisfied or very satisfied farmers being 74% vs. 59% respectively.

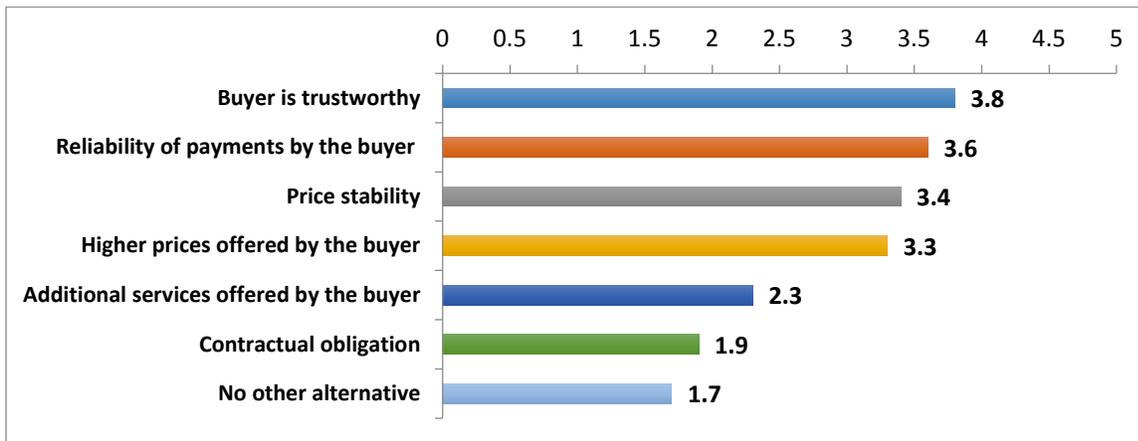
**Chart 2.14. Satisfaction with relationships with middlemen vs. with processing factories**



We then asked the respondents to assess the importance of various factors when it comes to choosing the main buyer on a scale of 1 to 5, where 1 = not important, 2 = slightly important, 3 = moderately important, 4 = very important, and 5 = most important.

As per the results of the survey, the four most important factors are trustworthiness of the buyer, buyer's reliability in terms of making payments in full and on time, price stability and higher prices offered by the buyer. Chart 2.15 on the next page presents the factors in descending order, based on mean estimates of importance.

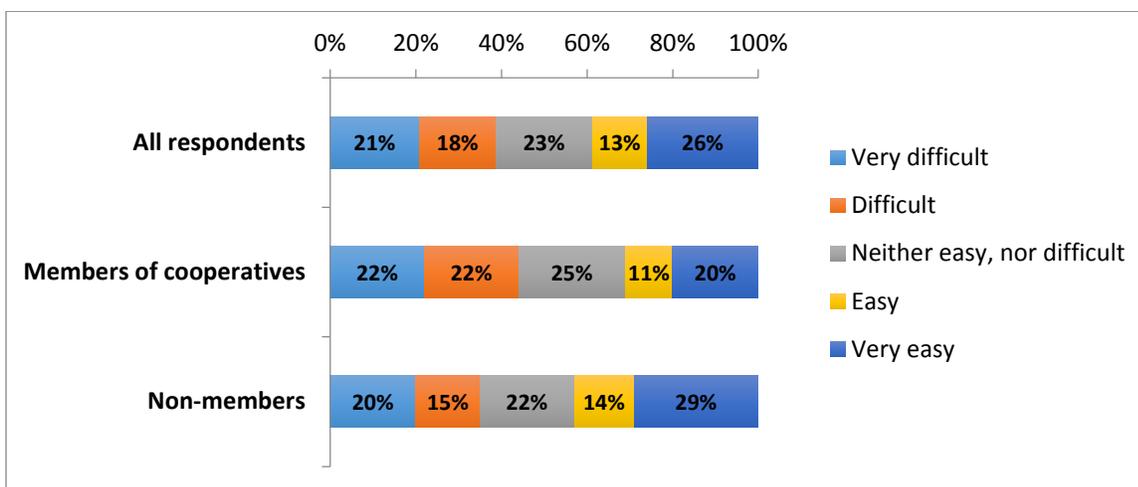
**Chart 2.15. Factors affecting the choice of the main buyer (mean estimates)**



We asked the respondents to estimate how easy it would be for them to switch to another main buyer and how easy they think it would be for their main buyer to replace them with another supplier.

Interestingly, 39% of all respondents said it would be difficult or very difficult for them to change their main buyer, while another 39% said it would be easy or very easy, and 23% considered it to be neither easy, nor difficult. However, the survey found that changing the main buyer is more difficult for members of cooperatives than for other respondents.

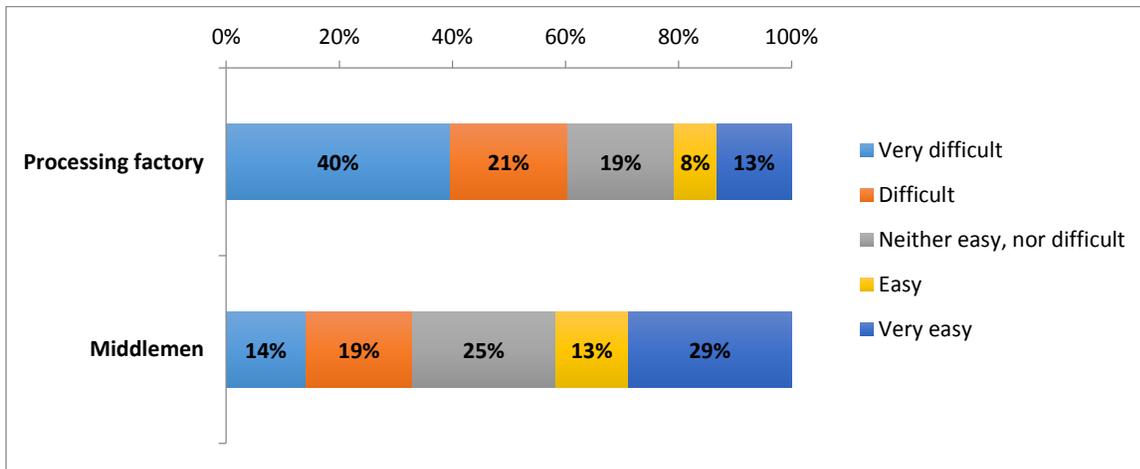
**Chart 2.16. Ease of switching to another main buyer**



This finding was rather expected, considering that the proportion of farmers mainly relying on processing factories is significantly higher among members of cooperatives than among individual

farmers, while the number of processing factories is very limited, unlike other categories of buyers (specifically middlemen). Crosstabulation of the data confirmed that farmers whose main buyer is a processing factory find it significantly more difficult to switch to another buyer than farmers who mostly sell their produce to middlemen.

**Chart 2.17. Ease of switching to another main buyer when the current main buyer is a processing factory vs. when the main buyers are middlemen**



At the same time, the majority of both members and non-members of cooperatives think it is easy or very easy for their main buyer to replace them with another supplier.

**Chart 2.18. Ease of replacing the supplier**

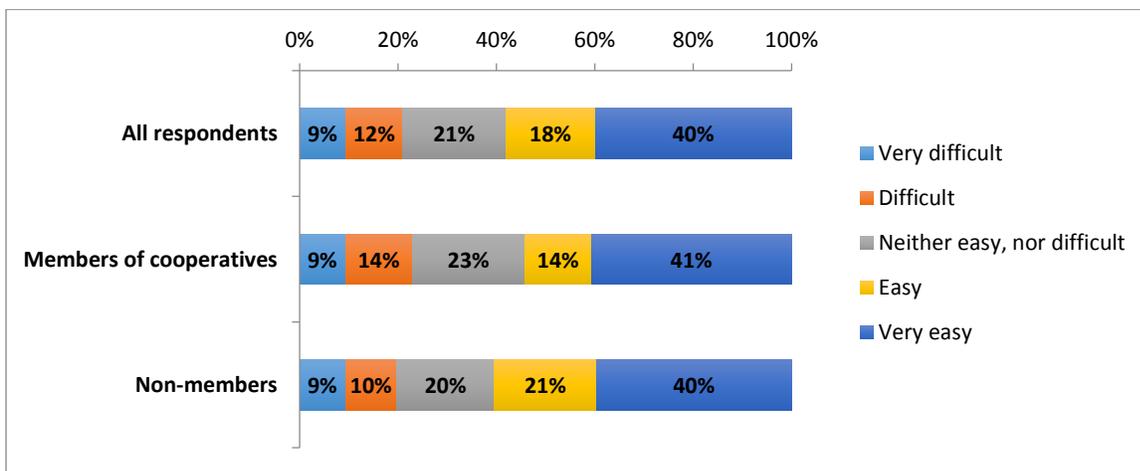


Chart 2.18 shows that the share of farmers considering it easy for their main buyer to replace them with another supplier is slightly lower among members of cooperatives. However, crosstabulation of the data revealed that the type of main buyer is not what determined this difference. On the contrary, according to the respondents, the processing factories can replace their suppliers more easily than the middlemen. Therefore we could expect the members of cooperatives to be more pessimistic in this regard.

While the survey data was not sufficient to explain this contradiction, the reason, perhaps, is that when it comes to buyer-supplier relationships, the processing factories regard cooperatives as a single supplier and are therefore more cautious in their dealings with individual members. On the other hand, cooperatives in general don't have a strong enough position in the agricultural market to influence the decisions of the main buyers in a substantial way.

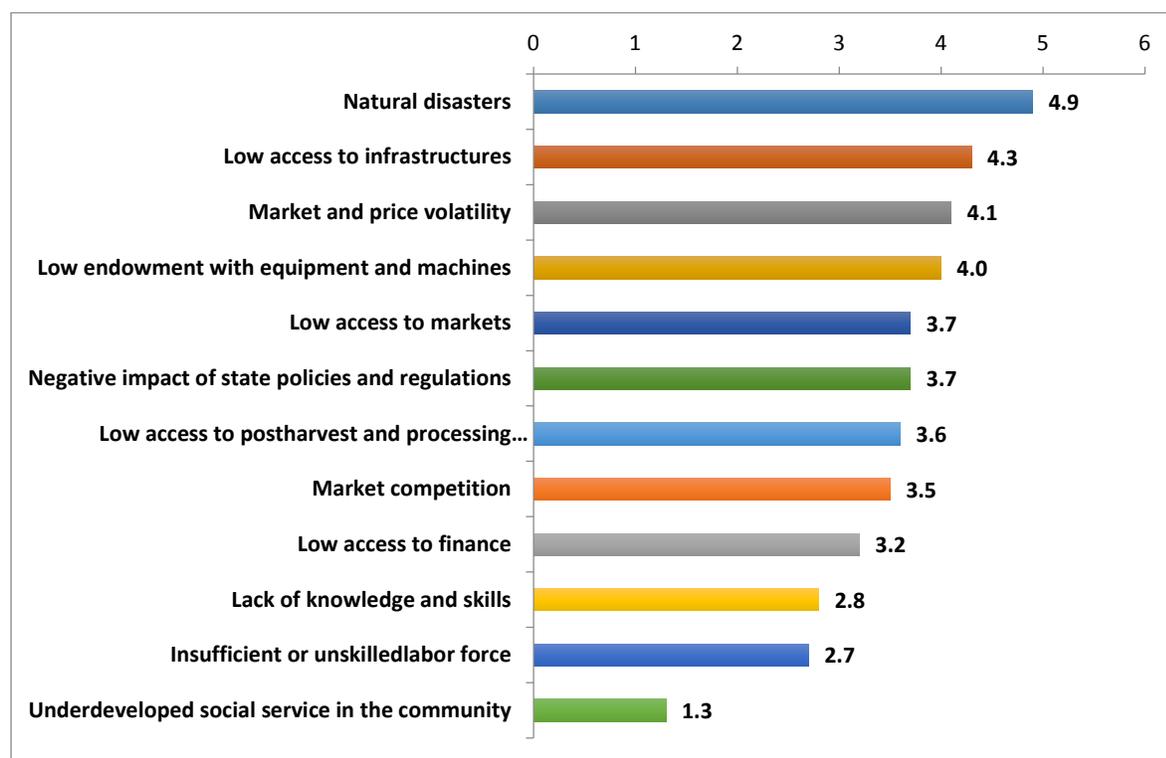
## **Factors affecting revenue and sustainable development of agricultural activities**

We offered the respondents a list of factors that can potentially affect the revenues and sustainable development of agricultural activities and asked them to rate the impact of each of those factors on a scale of 1 to 4, where 1 = no impact, and 5 = very strong impact.

As per the survey results, factors having the strongest negative impact are natural hazards (hail, frost, drought, etc.), low access to infrastructures (roads, irrigation, etc.), market and price volatility, and low endowment with equipment and machines. Chart 2.19 on the next page presents the factors in descending order, based on mean estimates of the strength of impact.

It is worth mentioning that these mean estimates were found to be identical in all three groups of respondents (members of cooperatives, non-members in communities where cooperatives exist, and farmers in communities with no cooperatives).

**Chart 2.19. Factors affecting revenues and sustainable development of agricultural activities by strength of impact**



## Cooperation

To assess the respondents' perception regarding agricultural cooperation two sets of questions were used - one addressed to members of cooperatives, and the other addressed to farmers who are not part of any cooperative. Below are the results of the survey for each of the two subgroups.

### Members of cooperatives

28% of this group of respondents acquired membership in a cooperative 1-2 years ago, 29% became a member 3-4 ago, while 44% have membership for 5 or more years.

As mentioned in the Introduction, the sample covered a total of 100 members of 10 cooperatives. The questionnaires addressed to members of cooperatives contained several questions relating to factual status and activities of the cooperatives. We have therefore contacted the chairpersons of the cooperatives to crosscheck the survey data and report the most up to date and comprehensive information.

Hence, according to the survey, the 10 cooperatives covered by the sample have, on average, 67 members, with a minimum of 22 and a maximum of 136.

In all 10 cases, the legal status of the farmers' group is a Consumer cooperative.

Most commonly, the cooperatives coordinate aspects of production (10 cooperatives),<sup>1</sup> input purchasing (7), lobbying (7) and marketing (6). Five cooperatives conduct trainings for members. Four cooperatives coordinate transportation, and three cooperatives deal with storage. Processing, packaging, and financing are each dealt with by only one cooperative.

In the near future, two more cooperatives plan on engaging in processing and marketing, while input purchasing, storage and packaging will each become an area of focus for one more cooperative.

Half of the sampled cooperatives have received financial or non-financial assistance from both the government and donors, while the other half was assisted by donors only.

State assistance mostly included provision of an office space or co-financing the purchase of agricultural equipment and machinery (paid for by the Agricultural Projects PIU or disbursed from the community budget).

The donors (Oxfam, UMCOR, Shen, World Bank, Heifer, Card, Armenian Evangelical Church, Jinishyan Foundation) financed or co-financed the purchase/construction of agricultural machinery, greenhouses and refrigerating units, as well as arranged various trainings (on legal, agricultural, cooperative management, and other issues).

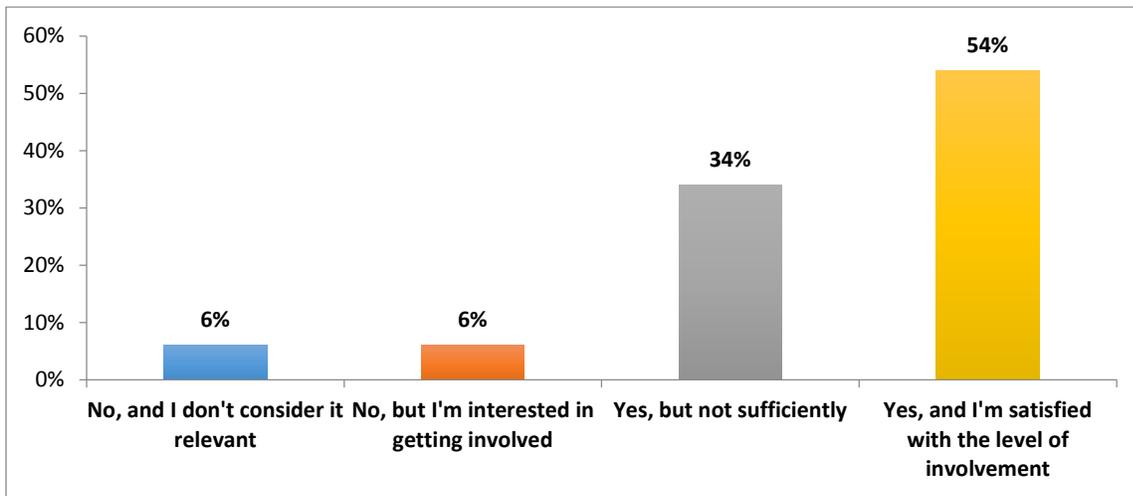
We asked the members of cooperatives whether they participated in their cooperative's decision-making process and to what extent they trusted the decisions made by the Board.

The survey reported that the overwhelming majority of farmers (88%) are involved in the decision-making process to a certain degree (see Chart 2.20 on the next page).

---

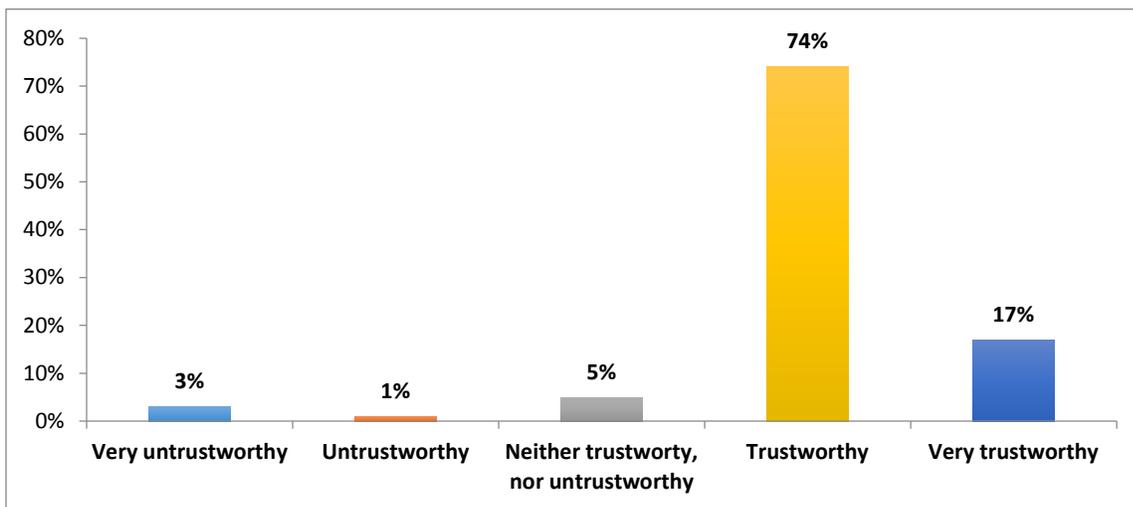
<sup>1</sup> These include various agricultural services that cooperatives provide to their members.

**Chart 2.20. Involvement in the cooperatives' decision-making process**



The survey reported that only 4% of the members don't trust the decisions made by their respective Boards.

**Chart 21. Trustworthiness of decisions made by the cooperative's Board**



We then questioned the respondents about changes that occurred in their activities after becoming a member of a cooperative.

The survey suggested that membership in a cooperative had the biggest positive impact in terms of increasing the efficiency of communication and mutual support among the farmers, as well as improving the knowledge and skills of the farmers. Other significant impacts included improved access to agricultural equipment and machines, improved quality of production, decreased production costs and increased household income.

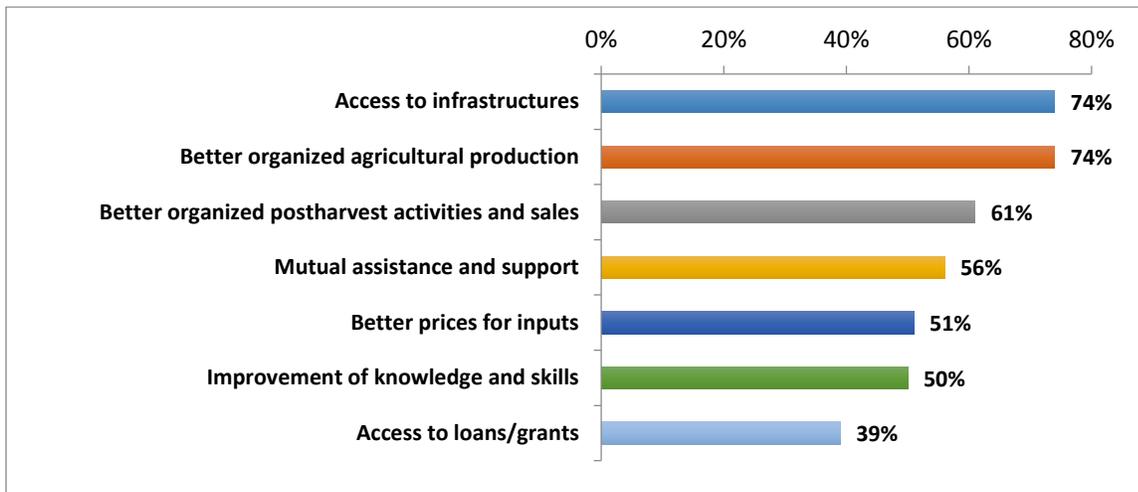
Membership in a cooperative had the least impact in terms of preparedness to natural hazards and mitigation of market risks.

**Table 2.5. Changes that occurred after becoming a member of a cooperative**

<b>Change</b>	<b>No changes</b>	<b>Slight changes</b>	<b>Moderate changes</b>	<b>Important changes</b>	<b>Very important changes</b>	<b>Mean</b>
Communication and mutual support within the group became more efficient	8%	7%	22%	53%	10%	<b>3.5</b>
Knowledge and skills were improved	10%	8%	27%	46%	9%	<b>3.4</b>
Access to the farming technologies, equipment and machines was improved	20%	14%	27%	35%	4%	<b>2.9</b>
Quality of production was improved	23%	7%	42%	26%	2%	<b>2.8</b>
Production cost decreased and became more efficient	24%	12%	40%	21%	3%	<b>2.7</b>
Household income increased	29%	10%	40%	19%	2%	<b>2.6</b>
Volume of production increased	29%	8%	43%	20%	0%	<b>2.5</b>
Access to the finance and credit has improved	44%	8%	17%	24%	7%	<b>2.4</b>
Access to postharvest and processing infrastructure was improved	44%	13%	23%	20%	0%	<b>2.2</b>
Exposure to the market risks decreased (market and price volatility)	52%	18%	23%	7%	0%	<b>1.9</b>
Exposure to the natural hazards decreased (frost, droughts, hail etc.)	63%	10%	10%	16%	1%	<b>1.8</b>

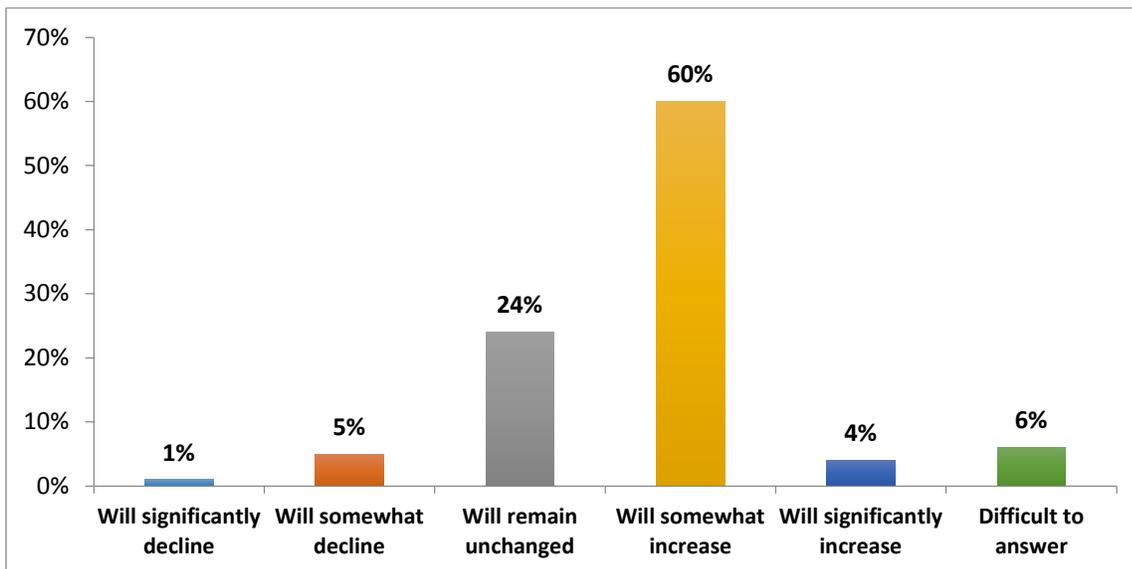
The most common motivators to join (establish) a cooperative were access to agricultural infrastructure (equipment, machines, storage facilities, etc.) and better organized agricultural production (see Chart 2.22 on the next page).

**Chart 2.22. Motivating factors to join (establish) a cooperative**



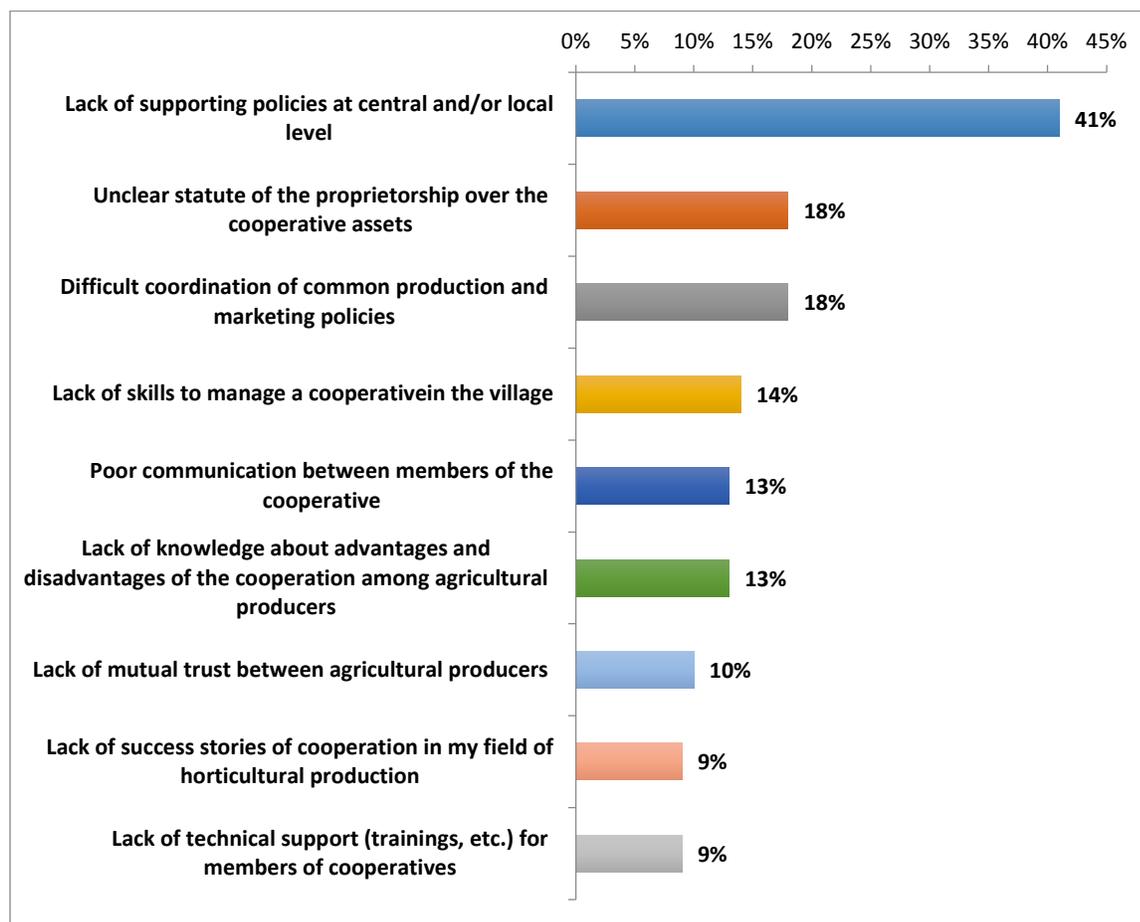
The majority of the respondents (60%) thought the number of members of their cooperative would somewhat increase in the near future.

**Chart 23. Projected changes in the cooperatives' membership bases**



As to the main risks of cooperation between farmers, the most prevailing response (41%) was lack of supporting public policies at central and/or local level (see Chart 2.24 on the next page).

**Chart 2.24. Main risks of cooperation between farmers**



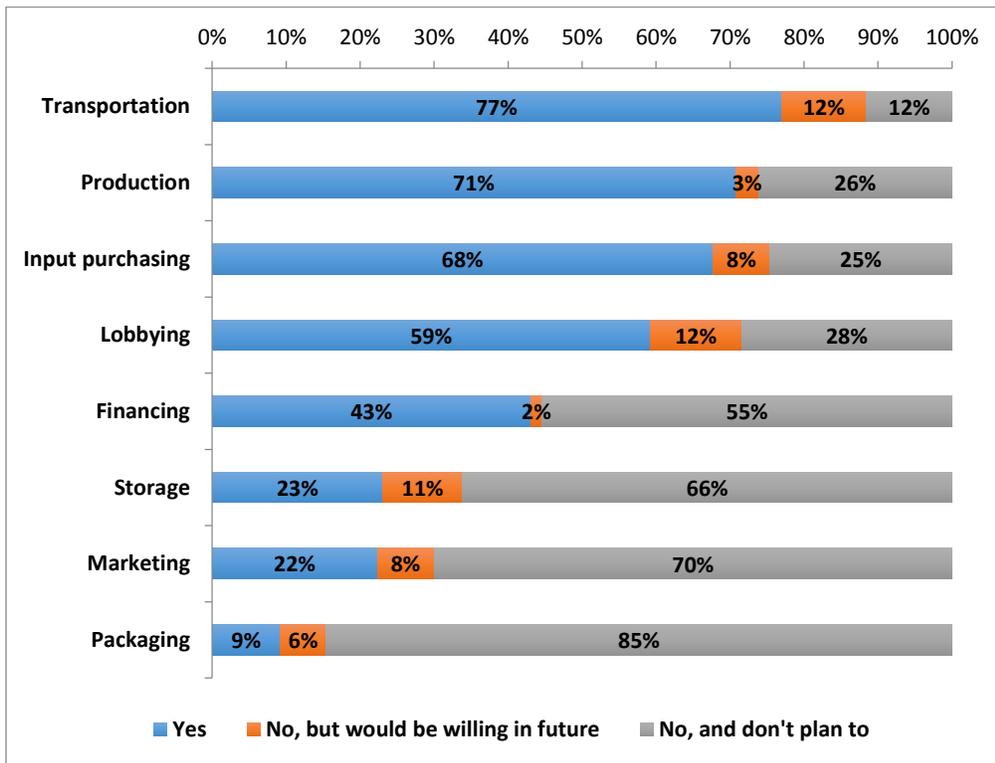
**Non-members**

The majority of respondents who did not have membership in any agricultural cooperative (66%) had previous experience of solving production, marketing or other issues by joining efforts with other farmers. At that, the share of farmers with such experience was the same in communities with established cooperatives and in communities where cooperatives do not exist.

The majority of respondents who had experience of cooperation (57%) reported to collaborate with other farmers on various issues several times a year, 36% said they collaborated once year or less frequently, while 7% said they do so on a permanent basis.

The most widespread areas of cooperation with other farmers were transportation, production and procurement of inputs (see Chart 2.25 on the next page).

**Chart 2.25. Areas of cooperation with other farmers**



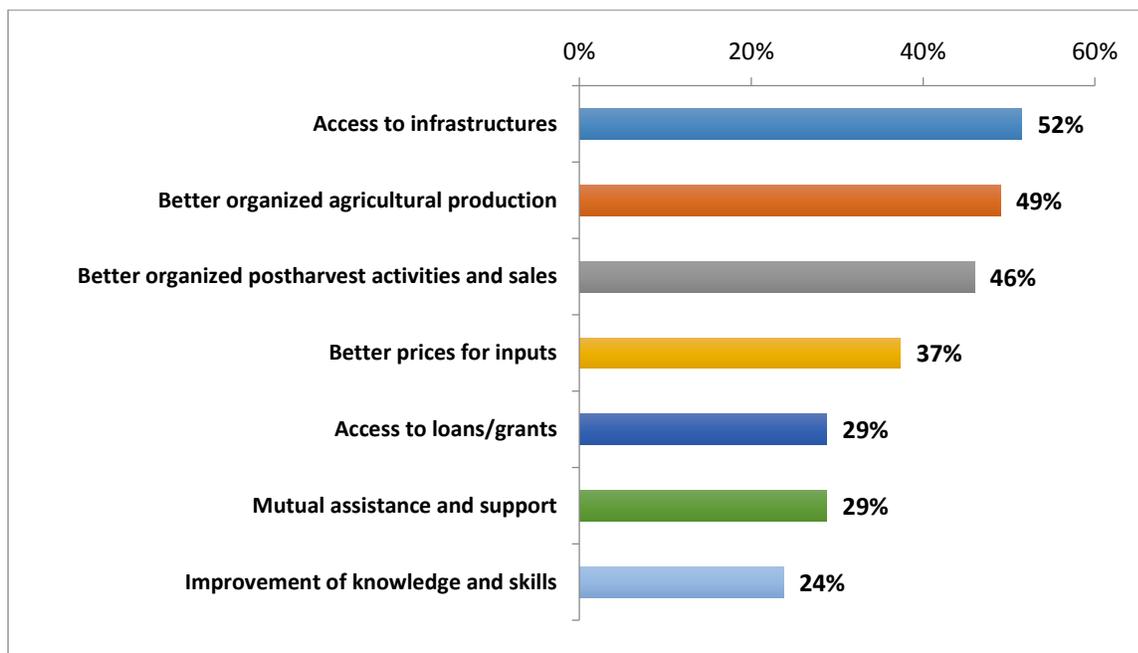
18% of non-members said they were willing or very willing to create a cooperative in their community. At that, such willingness was expressed by 19% of non-members in communities with existing cooperatives and 16% of respondents in communities where there are no cooperatives at the moment.

Every third non-member (32%) said he/she was willing or very willing to join an existing cooperative, this share being 30% in communities with existing cooperatives and 35% in communities with no established cooperatives.

Half of the respondents said they knew someone in their community who they could trust to lead a cooperative. This opinion was expressed by 60% of non-members in communities with existing cooperatives, and 40% of respondents in communities with no established cooperatives.

Similar to current members of agricultural cooperatives, the most common motivating factor to join (or establish) a cooperative among non-members was access to agricultural infrastructures and better organized agricultural production (see Chart 2.26).

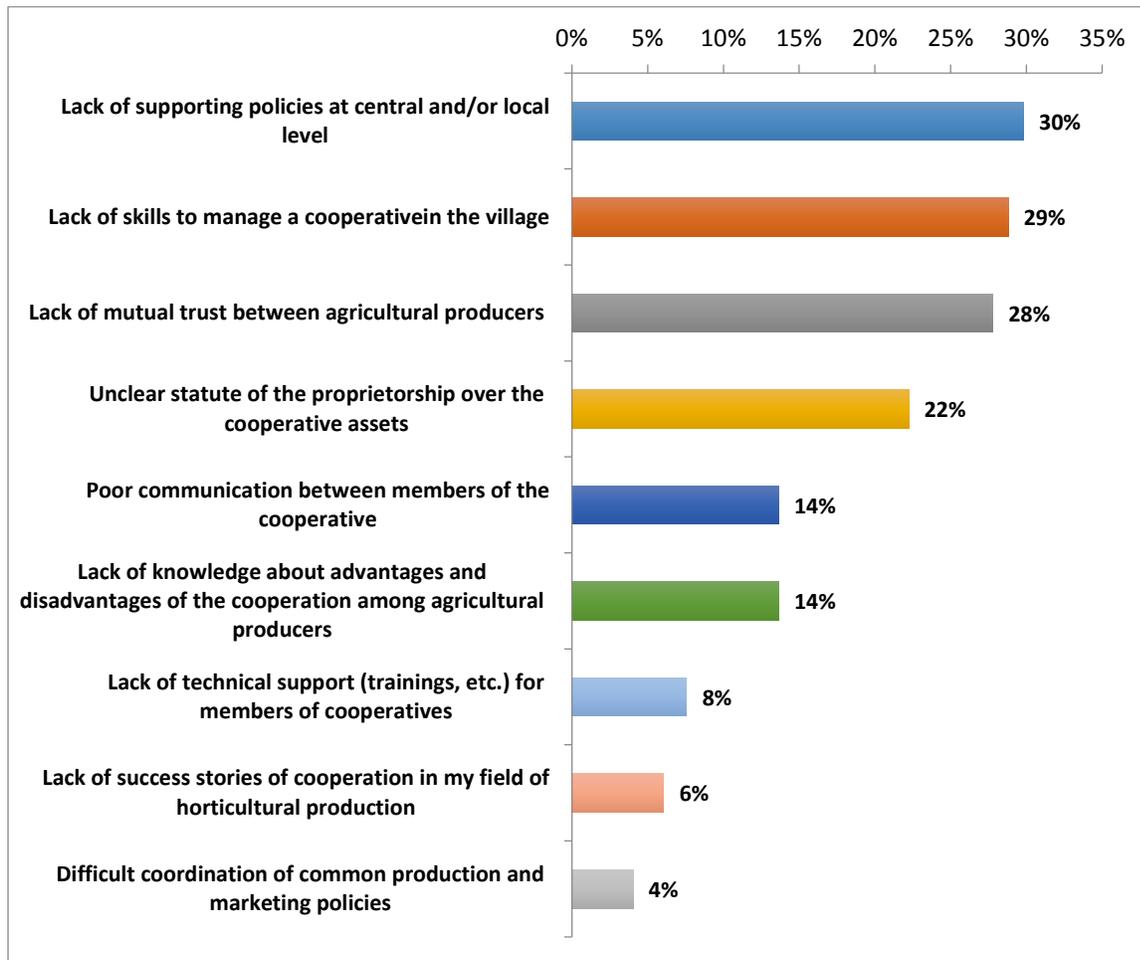
**Chart 26. Motivating factors to join or establish a cooperative (non-members)**



In the opinion of non-members, the main risks of cooperation between farmers are lack of supporting public policies on central and/or local level (30%), lack of skills to manage a cooperative in the community (29%) and lack of mutual trust between agricultural producers (28%) (see Chart 2.27 on the next page).

Remarkably, the share of current members of cooperatives who saw the latter two as major risks was significantly lower (14% and 10% respectively).

**Chart 2.27. Main risks of agricultural cooperation as seen by non-members of cooperatives**



## CHAPTER 3. RESULTS OF THE FOCUS GROUPS

### Perceptions of the agricultural cooperatives and cooperation

In order to reveal the farmer's understanding of cooperation we have first asked the participants of the focus groups to describe the notion of the cooperative. The level of awareness and understanding of the focus group participants about cooperatives is different. Based on the answers received we have classified the farmer's understanding of cooperatives and cooperation into 3 groups:

1. A structure providing support to the members of a cooperative
2. A structure uniting people, which allows reaching one united goal through joint efforts
3. A structure resembling the Soviet kolkhoz and sovkhoz.

The majority of the chairmen and members of cooperatives in the respondent communities have stated that the cooperative is a mediator "easing the burden of the villager", which receives support from the state, international and local organizations in order to provide affordable services to its members. It is worth mentioning that support is expected from external sources only, the opportunities of creating cooperatives with farmers' own financial contribution are not even considered. According to the understandings of the *first group*, the function of a cooperative is to support its members in the implementation of the whole circle of the agricultural activity: "provide machines/mechanisms", "provide quality, but cheap pesticides, fertilizers" and "solve the issue of the market to sell to". According to this kind of understanding, shall also respond to the issues of the community:

"It shall be able to solve the water issue"; "it shall undertake measures against frostbite".

This kind of understanding prevails in cooperatives with a relatively high number of members. This numbers in the majority of the respondent cooperatives do not exceed 100. Ttujur community cooperative is an exception, where the vast majority of the community – 200 inhabitants, is included in the cooperative. Hatsik community cooperative has 60 members, Shaqi – 75 members and Nor Kyanq – 82 members.

These cooperatives have received agricultural machines/mechanisms from state bodies and organizations dealing with community development. It can be concluded from the answers of the cooperative members that when evaluating the works of a cooperative, consideration is given only to the function of the cooperative regarding the provision of machines/mechanisms, fuel, seeds and fertilizers to its members. The cooperative members use the agricultural machines/mechanisms of the cooperative with prices lower than the market ones:

“For example, the ordinary price is 7000 AMD, whereas the price for the cooperative member is 5000 AMD. It’s lower for about 20%”. (*Members of Shaqi and Nor Kyanq cooperatives*)

The cooperatives are able to implement their functions partially. More or less they implement the services for mechanized agricultural works, provision of agricultural inputs and loans. None of the respondent cooperatives implements collection, processing, sales of the agricultural produce and provision of leasing services. For example, Nor Kyanq, Hatsik cooperatives have experience of getting loans from different foundations:

“42 members benefit from “Jinishyan” Foundation loans”. (*Nor Kyanq, members of the cooperative*)

“CARD used to provide loans with low interest rate to the cooperative”. (*Hatsik, members of the cooperative*)

Ttujur cooperative has received support for agricultural inputs from the state bodies, and Nor Kyanq cooperative has experience with acquiring seeds through loans:

“The Ministry of Agriculture has subsidized the fuel, seeds and fertilizer”: (*Ttujur, members of the cooperative*)

“They brought 1000 tons of seeds from Russia and provided 4 tons to our cooperative. We gave back 8 tons the next year. We distributed the seeds among the members fairly and everyone returned the seeds on time. And the Ministry thanked us. We returned the seeds as they had requested - cleaned, waste removed, packaged in sacks, i.e. in the same way as we had received it from them”. (*Nor Kyanq, members of the cooperative*)

According to the understandings of cooperatives of the second group, the cooperative is primarily about the unification of people and the desire to work together, as well as the equal distribution of profit among the members and the willingness to face the agricultural risks together.

“Personally I would say unity - the unanimity, unity of people, a possibility to work together, solidarity. Besides, it’s a possibility to assess each other, to get to know each other well, to know the capabilities of the others...;

As well as the joint distribution of the risks and profits. The risks are high in the agriculture and it is a little bit difficult to face those risks alone, but if you are united you can both withstand the risks and distribute the profits correctly”. (*Gomq, members of the women’s cooperative*)

This kind of understanding is characteristic for the members of small cooperatives and non-formal groups. For example, Gomq cooperative has 27 members and Ashotavan raspberry producer's non-formal group consists of 9 members. The Gomq community women's cooperative has been established by "Oxfam" organization, which supported the community to build a greenhouse. The cooperative members are motivated by the fact that a part of the cooperative's profit is allocated for solving the issues of the community. The focus group participants have considered the social role of the cooperative as very important:

"We were supposed to direct 40% of the profit to the implementation of a social program. For the first year we thought and gave a TV-DVD to the kindergarten, so that the kids could dance and sing. For the second year we bought books for the pupils. For the third year we saw that there were socially insecure families, so we decided to offer them to work in the greenhouse, to take four shares, as people say – maybe their conditions would improve". (*Gomq, members of the women's cooperative*)

Generally, the women's cooperative, as well as the non-formal group in the communities changes also the notions of the role of a woman. For example, in Gomq and Ashotavan the men were skeptical about the women's cooperation in the beginning, but that position changed, when the non-formal group yielded the first results. It is worth mentioning that various international and local organizations have worked a lot with the women's groups in both communities.

"The belief in us has increased when we were able to have income from the raspberry sold". (*Ashotavan, women's non-formal group*)

"As this is a women's cooperative, the role of the woman has increased in the community. This has done a big thing in the community. In the beginning it was hard for the men: "see, these women have gathered together again". But slowly something changed, the men started to value us". (*Gomq, members of the women's cooperative*)

At the same time, the young women, who didn't have any experience with cooperation and were housewives, didn't have any idea about the cooperative and didn't understand the functions it could have.

The ones equating the cooperative with the Soviet kolkhoz and sovkhoz are mostly the former members of the cooperative, the members of the newly-established cooperative and persons not involved in any cooperation. One could notice that this answer has been given by persons of middle age or above. For example, the mayor of Shaqi community has mentioned that the members of the cooperative didn't understand fully the idea of the cooperative, because they did not read the cooperative's charter and did not attend the meetings:

"The cooperative shall work with principles, fundamental principles shall be implemented. The members still do not understand what is the cooperative, because they even do not

participate in the meetings normally. It seems they have a misperception of the cooperative – do they think we shall create something like a former collective economy or what?” (*Shaqi mayor*).

We asked “What is a cooperative” question also in the communities which did not have cooperatives or cooperation. In case of no answer, the question was reformulated in the following way: “please describe your understanding of a cooperative”:

“I imagine it in the following way: it shall be an old kolkhoz system, it shall all be in one place, whatever they do – growing fruits, vegetables, wheat, with whatever number of people, they shall work in one place” (*Berdavan, former members of the cooperative*).

We have registered also an almost zero level of awareness about the cooperatives and cooperation. The young persons not involved in cooperatives were mostly the ones who found it difficult to describe a cooperative:

“We are not aware of the cooperatives at all; we only know that they work collectively”.  
(*Ptghavan, women not involved in the cooperative*)

The persons who see the cooperative as a body providing aid to its members or who equate it with kolkhoz/sovkhoz probably do not have a complete understanding of a cooperative. The persons who see the cooperative as a unification of people aimed at reaching one united goal have a more correct perception of the idea, principles and values of the cooperative. According to the definition of the International Cooperative Alliance and the International Labour Organization:

“A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise<sup>2</sup>.

The principles of a cooperative are as follows:

“Voluntary and open membership, democratic member control over the activities of the cooperative, member economic participation, autonomy and independence, education, training and information, co-operation among cooperatives, concern for community”<sup>3</sup>.

The values of a cooperative are as follows:

“Mutual help, self-responsibility, democracy, equality, equity, solidarity, unity”<sup>4</sup>.

---

<sup>2</sup> See Vardan Urutyan, *Cooperatives: The principles and economic benefits of a cooperative*

<sup>3</sup> The same source

## Cooperation practices and the understandings of such practices

Generally, in order to get correct information about the practices, it is necessary to do observations, because often the practices can be unconscious. Nevertheless, it is important as well to see through focus group discussions what is verbalized and not verbalized in the communities about the cooperation practices.

The focus group discussions have revealed that some communities are more united than the others. The *mutual support* is an important factor in the united communities, but people do not speak about it, thinking that “it cannot even be another way”. Generally, when speaking about the practices, the respondents have mostly given incoherent information and have had big difficulties in verbalizing the nuances related to the joint practices. When speaking about the unity and mutual support, the traditional ceremonies, like funeral and wedding, are in the forefront. For example:

“Our community is very united. Even if there are small issues, we are united, we will all support each other. And if God forbid, there is an accident, we are supporting with the whole village”. (*Ptghavan, women not involved in the cooperative*)

In the communities, the cooperatives have not created yet the images of “us”, i.e. the cooperative members and “them”, i.e. the non-members. One part of the cooperatives operating in the communities provides the same service both to its members and non-members:

“It’s a villager for us, it doesn’t matter if it’s a member or not, business is business... We find compromises”. (*Ttujur, cooperative members*)

There are communities, where the living standards of the villagers are more or less the same. In other communities the differences are more observable. In the communities with rich farmers the co-villagers create small groups and work for the farmers as an employed workforce. Generally, in the communities with more or less equal living standards of the co-villagers, the focus group participants said they regretted that there was no “rich farmer” in their village for whom they could work or who could put the village up on its feet.

When speaking about the cooperative or their experience with cooperation, the focus group participants have stressed the importance of several principles and abilities of working jointly. The members of cooperative and non-formal groups stated that the experience of joint work increases the *feeling of responsibility* in people:

“There as increase in responsibility as well, because the crop produce being created is for everyone”. (*Gomq, members of the women cooperative*)

---

<sup>4</sup> Same source

When speaking about the activities of the cooperative the *conscientiousness* and the ability to be *organized* have been found important along with the *unity*.

“We are conscientious and united and have repaid our loans on time”. (*Nor Kyanq, members of the cooperative*)

“Most importantly, we are organized and we supplement each other. Nothing remains incomplete”. (*Gomq, members of the women cooperative*)

It can be concluded from the discussions of the focus groups that the *conscientiousness, organization and unity* have been formed inside the cooperatives or non-formal groups due to the leaders of the groups and have required big efforts and time.

The biggest part of the responsibility for the activities of the cooperative falls on the chairman. For example, the chairman of Gomq cooperative states that she has had a *special approach* to each member for the success of the cooperative:

“It is necessary to study everyone individually; each of them needs an individual approach. The women’s cooperative does exactly that – we help each other, e.x. we think about who will take care of Anna’s kids so that she can attend the seminar. The solution of this issue is the establishment of the kindergarten. If there is no one that can take care, then I will. We may not solve all issues or may not be able to help each other a lot, but we try at least”. (*Gomq, members of the women cooperative*)

Generally, self-organization is a big issue in the rural communities. There are people who have become more careful based on their past experiences and are afraid to undertake mutual actions. In the communities, where there are still no cooperatives, we can see a desire to create one. At the same time, there is a concern: one can frequently hear the opinion that “everyone lives with its own burden”.

“The psychology of the people has changed after the Soviets – then everyone would take their personal belongings to keep in their homes. After the collapse of the Soviet Union they decided to establish collective economy, in order to take the livestock to one common place and not to separate houses. About twenty people would take the livestock to the barns and take care of it, but probably in the end it was not profitable.

The cooperative will work out with some groups of people and will not with the others. The mentalities of the people are different. Some are self-sufficient. There are such people – withdrawn, whatever you tell them or whatever you do, they will insist on their point of view, will tell you that they are separate”. (*Khndzorut, members of the community, which does not have a cooperative*)

As mentioned in the previous chapter, the cooperative is also perceived as a *possibility to receive support*. During the focus group discussions we have heard often the opinion that in order to create or join a cooperative the population of the community wanted to have a success guarantee and to be sure that they would have results in a short period of time:

“I am sorry, shall we create that cooperative in our community by ourselves or...? We shall see that there is a result.

Well, let's assume that we want to establish a cooperative to produce dried fruits or to open a facility for packaging of medicinal plants; will any organization support us in acquiring the equipment?”. (*Geghamasar, members of the community, which does not have a cooperative*)

“People shall see the results in order to understand and believe”. (*Khndzorut, members of the community, which does not have a cooperative*)

The people are more prone to undertake actions on their own in the communities where the international organizations have implemented several educational projects. The majority of the cooperatives and non-formal groups participating in the focus group have been created by international organizations. In the initial stage the people were very skeptical about the cooperatives, but the motivation of the members of the cooperatives and non-formal groups have drastically increased during the implementation of the projects funded by the international and local organizations. Nevertheless, after the completion of the projects the cooperatives have faced a serious problem, as they were not able to fund their activities only from the membership fees. The people are disappointed and both the frequency of the cooperative meetings and the level of member attendance have decreased.

The unfinished projects have contributed to the atmosphere of *desperation*. For example, women's NGOs were established in Nor Kyanq (as well as in the neighboring Khor Virap<sup>5</sup>) community under the cooperative. AMCOR supported the women in the establishment of the organization, invited specialists and conducted trainings in order to teach the women to produce dried fruits, but the project was not completed.

“They promised to install fruit drying facilities, where women could work, but it didn't work out”. (*Nor Kyanq, members of the cooperative*)

“About 120 women came together. The main goal was to produce dried fruits. They worked only the first year. Now, each of them does that job in their own house”. (*Khor Virap, chairman of the cooperative*)

---

<sup>5</sup> The chairman of the Khor Virap cooperative has taken part in the focus group discussion organized in Nor Kyanq community.

The “negative thinking” of people has changed to “positive” in two communities – Ashotavan non-formal group and Gomq cooperative.

“Now they think that they can create jobs; before it was not like that, they used to think there were no jobs”. (*Gomq, members of the women cooperative*)

We believe that several factors lay in the basis of the mentality change and the consequent success. First, relatively small groups of 20-25 people have been formed in these communities; second, intensive and multi-profile educational programs have been implemented, including trainings on marketing; and third, small and measurable goals have been set. Although both groups are women’s cooperative and non-formal group, we do not have sufficient data to state groundedly that the success is conditioned by the gender as well. However, it is worth mentioning that the skills of the chairman have played a big role in the success of the Gomq cooperative: the chairman has been democratic and fair in her activities and all her actions have been transparent.

Interestingly, there have been two radical attitudes reported about the practices of participating in the training programs. One group of respondents stated that the trainings were meaningless, while the other group said they provided an exclusive opportunity for growth and development. For example:

“We have attended trainings and have developed a business plan with 4 persons. I have submitted it in person, but they didn’t provide funding. It stayed hanging in the air, well, we learned to prepare the business plan, but was it sufficient? It was meaningless”. (*Geghamasar, members of the community, which does not have a cooperative*)

“We have attended seminars for every topic: agriculture, gender, leadership, marketing, accounting. We participate in trainings all the time. Now our women are so developed ideologically that they are ready to implement any project. Plus, any process requires a seminar”. (*Gomq, members of the women cooperative*)

The focus group discussions have allowed concluding that the success of the cooperative depends both on the consistency, fairness of the chairmen, their other abilities to motivate and organize and on the motivation, self-organization of the members, their abilities of pursuing the goals and withstanding the failures without disappointment and the ability to cooperate.

## **Challenges and opportunities of the cooperatives**

In this part of the report we will present the issues of the respondent cooperatives and the opportunities created by those issues.

The focus group participants state almost unanimously that the *agricultural produce sales issue* is the number one issue in their community.

“It’s the market issue; well, let’s say we have grown that much of peaches, what are we going to do with it? It’s the sales issue”. (*Berdavan, former members of the cooperative*)

None of the respondent cooperatives has *the possibilities to deal with this issue at the moment*. It is indicative that the Ashotavan raspberry producers women’s group, which consists of 9 persons and has been established by the support from The World Vision does not have such an issue: the harvested raspberry is fully sold both within the RA and Artsakh areas. The sales are done by the mediators with the price defined by the group:

“We sell the raspberry together with the same price; we do it in a way to maintain, protect that price”. (*Ashotavan, women’s non-formal group*)

Currently the members of the non-formal group cultivate the raspberry in their homestead lands and anticipate to get irrigated lands from the reserve fund in order to enlarge the cultivation volumes for raspberry. This group has introduced a new technology for raspberry cultivation. This opportunity created by the non-formal group is used by the population of Ashotavan and the neighboring villages:

“Today we are producing raspberry in the community. We also provide information about the new development technology to the whole community and to the neighboring communities as well. We distribute literature, we communicate, we get to know people and acquire markets”. (*Ashotavan, women’s non-formal group*)

Another issue of the communities more or less dealt with by the cooperatives is the *provision of machines/mechanisms*. The cooperative of each community has its own issues linked with the machines/mechanisms. The former members of Berdavan cooperative have stated that the membership in the cooperative was useless as it could not solve the issue of the machines/mechanisms.

“There are no working machines/mechanisms in the village at all. The machines/mechanisms of the cooperative are old and they keep breaking down. They work for one day and stop for five days. We do not have a combine, mower, hay baler machine, nothing. They have come from Tumanyan and helped us with their own machines/mechanisms, we have paid them and they have done the work, but they do not come every year, we wish we could have machines/mechanisms...”. (*Berdavan, former members of the cooperative*)

The cooperative of Shaqi community has been established two years ago and has not commenced its main operations yet. They have received a press, a manual-operated grass mower, two

tractors. As the cooperative has many members – 75, and the lands are far from each other, the cooperative is not able to support everyone with the existing machines/mechanisms.

“The demand for machines/mechanisms increases in parallel to the increase in the number of members. We are not provided with all the necessary machines/mechanisms currently in order to be able to solve the issues of the cooperative with the machines/mechanisms that we have received. We lack machines/mechanisms, for example we do not have a combine and a tillage tractor”. *(Shaqi, members of the cooperative)*

Another issue is linked with the quality of the machines/mechanisms: the *received ones are not suitable for the terrain* and are broken down fast:

“The newly received machines/mechanisms are not suitable for our fields, let’s say the fields are stony, the blades keep breaking and the replacement of one blade costs 30.000 AMD. The generated profit would be hardly enough only to repair the machines/mechanisms”. *(Shaqi, members of the cooperative)*

“They gave one tractor, but it is broken down now. It worked for one-two years and then broke down”. *(Nor Kyanq, members of the cooperative)*

Generally, the capacities of the respondent cooperatives are not big. They actually solve their existence issues; they are not able to get profit.

“There is no profit. In our conditions, the cooperative hardly ensures its existence”. *(Shaqi, members of the cooperative)*

“The cooperative cannot support these people, it does not have the capacity”. *(Nor Kyanq, members of the cooperative)*

The cooperative of Nor Kyanq community has been established in 2010 by AMCOR organization. The cooperative used to receive funding in the form of salaries and agricultural machines/mechanisms, but currently they don’t have sufficient means to operate. The only motivation to join the cooperative is the possibility to get low-interest rate loans from Jinishyan Foundation.

“The funding ended, they took me to a reception in the National Assembly. They speak so much: we shall enlarge the cooperatives, I don’t know what. I only ask: you have funded and created a cooperative, what opportunities do you give now? They say: nothing at all. I say: if you don’t want to support financially, at least provide diesel, machines/mechanisms, at least something – tools, etc., but they refuse. If you have created the cooperative please help now a little to sustain it. If it is going to be the same as when Poghos has driven the tractor, then what is the meaning of paying 1000 AMD membership fee? What is the difference that the cooperative makes?”. *(Nor Kyanq, members of the cooperative)*

An almost similar situation is in Hatsik community, where the cooperative has been established in 2009 with the support of AMCOR organization. The latter has provided the cooperative with agricultural machines/mechanisms – tractor and agricultural tools – plow, grass mower. The other part of the tools for the cooperative has been procured by the chairman of the cooperative. For example, he sold the plow and bought spraying equipment. They have provided different services up to 2015 – seasonal spraying, processing and plowing, but it's been 1 year already that they don't operate – this year the chairman hasn't taken any steps to participate in any program. As in the previous community, here also the desperation is an issue:

“The membership fees do not work and the village council is not able to do investments. Now people prefer to buy spraying equipment and to spray their 10-rows garden by themselves. It's about 30.000 AMD. Another thing is that they are insolvent. I gave the tractor to my son and he was cared for it very well. But he was working and the people were insolvent, they couldn't pay. You did the work now, but they said they would pay in autumn and when autumn came they would not pay”. (*Hatsik, members of the cooperative*)

Nevertheless, the cooperative members have benefitted from the opportunity to get low-interest rate loans for several years in a row. These loans were provided by CARD.

Raising financial means is the biggest issue of the cooperatives in Armenia. The cooperatives apply to various bodies – state bodies, local and international organizations, in order to be able to sustain the operations of the cooperative to some extent. The focus group discussions show that the capacities of the cooperatives are limited in Armenia, because they are still in the making stage. These structures still have a long way to go in order to operate independently and on their own. However, under the existing limitations the cooperatives undertake measures, which introduce changes in the activities of the cooperative members. For example, Ttujur community, which mainly deals with big and small livestock breeding, has been able to develop land cultivation in the community. The cooperative of Ttujur community has received a seed drill, 2 collectors, hay baler machine, manual-operated mowers through the support of international and local organizations – Heifer and Shen. Due to these investments it was able to diversify the agricultural activities of the community:

“To tell the truth, there is almost no land cultivation in our community. And due to our cooperative about 60 hectares of land has been plowed. The biggest part of this plowed land has been used to plant barley in the spring season. Now we get ready to reap and then to plow again and plant wheat”. (*Ttujur, members of the cooperative*)

Based on the example of Ttujur cooperative one can state that the cooperative provides an opportunity to start a new agricultural activity in the community.

The decision making process is another issue for the cooperatives. Based on the discussions and observations following the questions asked, it is possible to understand approximately the way discussions happen in the cooperatives. For example, it is possible to assume that in Hatsik the decisions are made by the chairman of the cooperative, while in Shaqi and Nor Kyanq the mayor is actively involved in the activities of the cooperative. With regard to decision making, Gomq cooperative and Ashotavan non-formal group are probably more democratic<sup>6</sup>. For example, in Ashotavan non-formal group the coordinator of the works is replaced on a monthly basis, thus allowing each of the members to be the coordinator.

“We mostly manage through meetings. If there is an occasion, we meet two-three times per month, if not then it’s once per month. Every month the coordinator selects its secretary. This month I am the coordinator and Lusine is my secretary”. (*Ashotavan, women’s non-formal group*)

However, the non-formal group has decided to elect one member in the future, whose organizational and representation skills are the best, which will be beneficial for all members of the non-formal group. In the communities without cooperatives, the factor of having a “good organizer” has been considered an important prerequisite for establishing a cooperative.

Generalizing the acquired data, we can state that the cooperatives provide the opportunity to its members to take low-interest rate loans and use the agricultural machines/mechanisms of the cooperative. Every member of the cooperative and, in some cases, the whole community benefits from the availability of the agricultural machines/mechanisms and the possibility to rent it with prices lower than the market ones. One of the strengths of the cooperatives is that the cooperative members become more united and cooperating during time and get a new mentality.

When asked if the cooperative will have any future in our country, the vast majority of the respondents have answered “yes” and have mentioned the necessary factors for that. In particular, they have given importance to the will to work, adherence to principles, aspirations, and change of mentality:

“I believe it depends on the human factor, but not the situation in the country. The internal political situation may worsen, but if the cooperative members have a will to work, principles, aspiration and goals they will be able to work regardless of the internal political situation”. (*Shaqi, members of the cooperative*)

“The mentality must change. It does not come from above, it comes from us. We don’t believe each other, we don’t support each other”. (*Hatsik, members of the cooperative*)

---

<sup>6</sup> This statement is based on the observations done during the focus group discussions.

The members of Ashotavan non-formal group have stated that the future belongs to the cooperatives, because even their small-scale group has changed the living standards of the community and has brought activity to the village:

“The living standard and the sense of responsibility are increasing. For example, I teach my son the same thing to ensure the continuity. Agriculture is developed by this; jobs are created”. (*Ashotavan, women’s non-formal group*)

Another group of people is doubtful about the role of the cooperatives. Desperation and pessimism prevail in their words:

“Nothing will work out unless we have a sponsor. It’s an issue of means only. We do not have the capacity. We need one good master to work well. There is no one having our backs”. (*Berdavan, former members of the cooperative*)

## **CHAPTER 4. “BERDAVAN” HORTICULTURAL CONSUMER COOPERATIVE: CASE STUDY**

### **Description of activities**

Berdavan cooperative has been established in 2013 in order to jointly solve the issues linked with the production and sales of grapes and peaches, which would allow increasing the incomes of the cooperative members.

Currently the cooperative mostly provides agricultural services (treatments, haying, as well as plowing, which will be done in the future) with tariffs approved by the board, which are lower from the market ones for 20-25%.

Currently the cooperative has 41 members, out of which 5 are board members. In order to stimulate the activities of the cooperative, Shen NGO has provided Berdavan cooperative with T-54 V tractor, sprayer, manual-operated mower and a harrow. The cooperative will have one more tractor and grass collection harrow soon, which will be procured through the investments of Shen France, community and the own investment of the cooperative.

According to the charter of the cooperative, its objectives are as follows:

1. Support the farms in the development of horticulture and viticulture, procurement of fertilizers and plant protection means, agrotechnical service, as well as the sales of the their production,
2. Support the members of the cooperative in increasing the agricultural production volumes, improving the quality, decreasing the cost price and finding new markets,
3. Contribute to the development of the agriculture in the region and the implementation of new technologies,
4. Contribute to the solution of the social-economic, cultural-domestic issues of the members of the cooperative,
5. Support the protection of the environment and contribute to the solution of the environmental issues,
6. Organize educational and informational trainings for the members with regard to all aspects of the agriculture,
7. Implement benevolent activities.

With regard to the objectives defined by the Charter, the current focus of the cooperative is on the cultivation of gardens and the acquisition of agricultural machinery. This results in the

improvement of the quality of the agricultural produce and the increase of its volumes, which leads to the increase of their incomes.

Currently the issues related with the sales of the produce are not a first priority, because they cannot produce large amounts of quality peaches due to unfavorable climatic conditions and the grapes are mostly of technical varieties, for which the wholesale prices are not depending on the producer, as they are decided by the factory buying the grapes.

Currently the villagers of Berdavan sell the grapes only to one factory and they have to accept the prices dictated by the buyer. It is worth mentioning, that the prices offered by other factories in Armenia are identical, so the cooperative can not expect selling the grapes at a better price by implementing marketing activities. As for the villagers cultivating table varieties of grapes, they are able to sell their produce by themselves, because the volumes are not big and the retail sales to private buyers are more profitable in this case. This is true also for peach sales.

The contribution of the cooperative to the stimulation of the agriculture in the region is the fact that many people, who used to have non-cultivated lands have started to cultivate them, because they already have the technical possibilities for that.

The support in the acquisition of fertilizers and plants is still in the form of information provision. The villagers are being informed about the fertilizers that can be acquired and the place where these can be acquired from.

The cooperative is also looking for new markets to sell the grapes, but they still have no success in this.

As for the organization of the educational trainings, cooperative representatives have participated to a number of trainings, where they were presented the principles of cooperation, member rights and responsibilities, the advantages, present opportunities and the risks of cooperatives, the legal regulations and the types of the cooperatives, etc.

The chairman and members of the board have participated to a training about management of cooperatives, and have developed a three-year business and an action plan.

Where necessary, the cooperative provides individual consulting to its members with regard to several issues, including how to cultivate the land correctly, how to use the pesticides/fertilizers, how to deal with various diseases of the crops, etc.

The cooperative has a perspective program for environmental protection and dealing with ecological issues. according to which the community shall give away its tractor to the cooperative, which, besides the agricultural works, will be used by the latter also for the garbage disposal works.

The capacity of the cooperative is extremely limited, thus the cooperative supports its members in solving their social-economic, cultural-domestic issues within the limits of its capacity – by ensuring the implementation of the agricultural works, which improves the living standards of the villagers to some extent.

The cooperative has undertaken also some benevolent activities – it has provided financial means for the treatment of a child from the village.

## **Financial data**

In 2015 the cooperative has received 1.278.000 AMD from service fees. The cooperative provides agricultural services to the non-member villagers. While the price of the services for the members is 20-25% lower than the market ones, the prices for the non-members are up to 10% lower than the market prices. The collected financial means are directed to the maintenance of the agricultural machinery and to funding the expenses of the cooperative.

Although the Charter of the cooperative prohibits the provision of services to non-members, the cooperative would not be able to fund its expenses otherwise, as the members do not pay membership fees. The reason is that not all of them use the services and not all of them are able to pay.

The administrative expenses have comprised 225.000 AMD (three months' salary for the chairman and accountant; the chairman carries out the functions of the accountant as well). They have paid 495.000 AMD for renting manpower, 128.000 AMD for renting agricultural machines/mechanisms, 239.400 AMD for fuel. The cooperative gave loans to its members in the amount of 200.000 AMD for purchasing pesticides/fertilizers. 148.550 AMD has been allocated for the repair of the agricultural machines/mechanisms. The transportation expenses have comprised 77.000 AMD. The cooperative still has uncollected services fees and has covered one part of the expenses using the 474.000 AMD profit registered last year.

## **Key achievements**

According to the board members of the cooperative, the key achievement is the increase in the cost effectiveness of the agricultural works. The cooperative provides services to the members with prices lower than the market ones, which allows reducing the cost price of the products. Besides, the crop yield increases as the result of the correct processing technologies.

In frames of the study we have spoken with 19 members of Berdavan cooperative. Most of them have stated that the production volume increased since their membership in the cooperative. In

parallel, the incomes have increased for one third of them, have remained unchanged for one third and have decreased for the remaining members. As for the production quality, it has either improved or remained unchanged.

Many of the members consider the mechanized cultivation of the gardens to be an achievement, due to which the organization of the works have improved and have become easier.

The majority of the members are rather satisfied with the activities of the cooperative. Only few of them have stated that they are not satisfied. The majority have mentioned that they urge their villagers to join the cooperative, because it creates an opportunity to implement the agricultural works in a more organized and timely manner, to carry out mechanized cultivation, to get services for a cheaper price, which leads to a reduction in the cost price. It has been specifically stated that the irrigation water supply has improved.

It is worth mentioning also that the cooperative services are used not only by the members but by the other inhabitants of the village as well, although for a little higher price. As assured by the members of the cooperative, the works are organized in such way that there are no queues and all beneficiaries are able to get the necessary services on time. The cooperative also provides a possibility to pay for the received services at the end of the year – after selling the produce, which is an additional motivating factor for the members of the cooperative.

The cooperative representatives also state that the cooperative provides a possibility to apply for various programs, which are not accessible for individual persons. Despite the fact that the donors have so far rejected the two proposals submitted by Berdavan cooperative, the latter continues its participation in the tenders.

## **Key obstacles**

According to the cooperative representatives the main issues of Berdavan cooperative are production-related, such as the insufficiency of irrigation water and agricultural machines/mechanisms (the cooperative doesn't have a combine, a seed drill), the low quality of pesticides, the lack of agricultural knowledge, as well as the lack of skills for assessment and management of the business.

The lack of motivation in members is an important issue as well. This issue is mainly conditioned by the financial difficulties of the villagers: everyone needs the services provided by the cooperative, but they are not able to pay. The level of unity is not particularly high, everyone understands theoretically the advantages of working together, but they are not ready to provide an input.

Based on the experience, members with big land plots and, thus, with significant incomes from that land plots, are more active. In this case, the use of agricultural machines/mechanisms makes the cultivation easier and economically beneficial, while the small land plots are cultivated individually, without cooperation, in order to avoid additional expenses. This opinion has been confirmed also through the interviews with the cooperative members, when it was revealed that the vast majority of the members had small land plots used for grapes and peaches, and the income from those land plots did not have a significant share in the total incomes of the families, thus the latter did not rely on that incomes and did not participate actively in the management of the cooperative. Another obstacle for the joint cultivation is the fact that the land plots are not adjacent to each other.

The representatives of the cooperative are concerned by the fact that the youth of the village totally avoids the agricultural works, and that very few of the members are young.

The recruitment policy for cooperative members is also noteworthy. In order to get support from international or local organizations, as well as the state, the cooperatives have to involve a big number of members, because otherwise it is difficult to find funding. Moreover, when international or state bodies provide support in establishing a cooperative, they define the minimum number of cooperative members, necessary to get any support. This is justified from the point of view of donors, because it provides big number of program beneficiaries, however the experience shows that, from the point of view of organizing the cooperative operations, having a big number of members is an obstacle (in some places the number of members in a cooperative reaches 200).

First, for many people the membership is of a purely fictive nature. In order to ensure the minimum number of members, non-interested villagers are included in the cooperative, which do not participate actively in the meetings, decision making of the cooperative, etc. On the other hand, the agricultural machines/mechanisms owned by the cooperative are not enough for servicing all the members, due to which the latter stop using the services of the cooperative and implement the agricultural works by themselves. Moreover, making joint decisions and working efficiently can be successful mostly within small groups, where the roles and responsibilities are clearly distributed.

This issue has been discussed also in the focus groups organized in frames of this study. The participants also didn't have a definite answer to this question: on one hand, having many members implies more membership fees, on the other hand, the agricultural machines/mechanisms are not sufficient for all members. Nevertheless, the cooperatives with small number of members are more successful. The representative of Shen NGO believes that the cooperatives need to include members which have common interests, a desire for working in

cooperation and mutual trust, as well as members, whose incomes from the given sector have or can have a significant share in their total incomes.

Due to the land plots being small and non- adjacent, 19 out of 41 passive members of the cooperative and 2 out of 5 board members no longer participate in the works of the cooperative, although they are official members. The members that left the cooperative mentioned that the membership was not beneficial, because the machines/mechanisms were not sufficient, the agricultural works were delayed and it was more beneficial to cultivate by themselves. They have stated that they will rejoin the cooperative if it can provide the machines/mechanisms and is able to provide services on time. The regional responsible of Shen NGO has mentioned that those people were dismissed from the cooperative for insufficient participation.

Berdavan cooperative faces external challenges as well, particularly safety issues (frequent shootings and bombings from Azerbaijanian side) and unfavourable climatic conditions. This year, for example, the hail has destroyed the major part of the peach crop.

The majority of the cooperative members consider the lack of machines/mechanisms and high degree of their wear to be a drawback for the cooperative.

They have mentioned also the irrigation water problem and the lack of motivation in members. The members wish for the cooperative to be multi-profile, to have a large base for machines/mechanisms and equipment in order to carry out also plowing and sowing, leveling of rows.

## **Management**

During the last 12 months, the cooperative has called three board meetings, and minutes have been prepared for the two of them. According to the chairman, it was not possible to hold a general meeting due to the low level of interest from the members. Nevertheless, the board decisions are displayed on the announcement board and thus become available for the members of the cooperative and the community.

The majority of the members permanently participate in the decision making process of the cooperative, the other part – not permanently, but sometimes. The majority of the members have expressed desire to have bigger participation in the decision making. The majority of the respondents fully trust the decisions made; only few of them have stated that they do not trust the prices set for the services. The others think that the prices are fully or mostly justified.

One of the members has stated that he would like them also to participate in the process for services price setting.

However, the regional representative of Shen NGO stated that not everyone is attending the meetings, and the members who have benefits and expectations from the cooperative are the active ones. According to the representative of Shen NGO, 10-15 people are the most active ones.

As for the re-registration of the cooperative from consumer to agricultural cooperative, the representative of Shen NGO believes it's still not realistic. In parallel to the advantages of the new Law on Agricultural Cooperatives, the tax obligations are stronger as well, for which the cooperative is not ready yet.

## **Development perspectives**

Taking into account the current situation, the representatives of the cooperative have expressed serious concerns about the future developments. The number of vineyards and grape cultivators is going down due to problems with irrigation and low selling price. The efforts for raising funds for the rehabilitation of the irrigation system have not yielded any results yet. On the other hand, the cooperative negotiated successfully with Karas wine factory in 2014, due to which the produce of the members has been sold for a price higher than the market one.

As they do not succeed in producing large quantities of quality peaches, the cooperative has plans to replace the peach gardens with persimmon and small-trunk nut tree gardens.

Nevertheless, the majority of the members of the cooperative have stated that they plan to increase the volume of their produce in 2016. Those who have stated no plans to increase have mentioned the borderline village factor and the lack of financial means as obstacles.

Taking into account all obstacles for the operation of the cooperative, it currently does not plan to start any new activity – they will continue the cultivation of the gardens.

Nevertheless, despite all the difficulties, the cooperative representatives are optimistic with regard to the future development of the cooperative and have high hopes linked with the acquisition of new agricultural machines/mechanisms in the near future. The acquisition of new machines/mechanisms will provide several new opportunities to the cooperative, including increase in the services offered, capacity to service a bigger number of villagers, increase in the number of cooperative members, possibility to service also the villagers occupied in livestock breeding, which need a hay baler machine.

The cooperative members, as well as all villagers, consider the lack of machines/mechanisms to be a primary issue, the solution of this issue by the cooperative will definitely result in positive changes. On the other hand, it is worth mentioning that the members link the solution only to the

external support. They think that their financial situation does not allow them to even think of making personal investments in purchasing of agricultural machines and equipment.

## CONCLUSIONS AND RECOMMENDATIONS

The study suggested that only a minority of farmers have a clear understanding of principles, values and ideas behind agricultural cooperatives. This group includes the chairmen of some of the cooperatives, and members of the relatively small cooperatives, who have participated in intensive training programs organized by international and local organizations. However, the majority of the respondents either perceives the cooperative as a body providing support to the members or equates it with kolkhoz/sovkhoz of the Soviet era.

- Prior to starting works with cooperatives it is recommended to implement preparatory measures, such as theoretical and practical trainings with the cooperative members, during which the idea, principles and values of a cooperative shall be presented in a comprehensible and detailed way. Interactive techniques shall be applied during the trainings, which will help farmers to change their perceptions of the cooperative.

The respondent communities differ from each other by two main characteristics: the level of unity and the pronounced or imperceptible difference in the living standard.

- When establishing cooperatives or making investments in them it is recommended to study the communities beforehand and select communities which have a higher level of unity and mutual support. It is necessary to understand who are the formal and non-formal leaders of the community. It is important to carry out separate work with the mayor and the “rich farmers” in the communities so that they do not disturb the activities of the cooperative with their active involvement.

The vast majority of the communities of the post-Soviet Armenia have a self-organization issue, and the fates of the existing or future cooperatives highly depend on the characteristics of their chairmen.

- It is recommended to find the formal or non-formal groups in the communities which have united by one goal on their own or with the support of international organizations. If the initiatives proposed by the groups can become a basis to establish an independent and autonomous cooperative, it is recommended to support them. If during the implementation of development programs the organizations meet a person who is interested in establishing a cooperative and can be a potential chairman of cooperative, it is recommended to involve him/her in the cooperative-related programs. Generally, it is necessary to regularly conduct trainings for the chairman of the cooperatives about “positive thinking” and the development of leader-specific abilities.

The members of the successful cooperatives are carriers of values and principles, which are specific to the cooperatives in the developed countries.

- When working with the cooperatives, it is recommended to present in details the experiences of successful Armenian cooperatives and cooperations: to invite the members of such cooperatives and cooperations, so that they motivate the others with their stories and answer the questions of the members of newly established or existing cooperatives.

The desperation atmosphere is widespread in the communities, which has been ~~been~~ facilitated by the fact of starting and abandoning projects by the international organizations.

- Prior to commencing any community development program, it is recommended to develop and implement “exit strategies”, which shall not harm the community and the cooperative. This will provide a possibility to create foundations for sustainable development in the communities and will help the members of the community and the cooperative to overcome the desperation.

The desperation atmosphere in the communities is accompanied by the “negative thinking” of people. In the women’s small-scale cooperative this obstacle has been overcome thanks to intensive work with the international organizations.

- It is recommended to include measures in the development programs, which will contribute to replacing the “negative thinking” with a positive one. It is necessary to take into account that the initiatives, which set small and reachable goals in front of them, spread motivation in the communities and contribute to the strengthening of the “positive thinking.” It is important to include a part in the training programs, which will be aimed at the development of capacities to avoid disappointment in case of failures.

Two radical attitudes have been shown towards the training programs. One group of respondents believed they were meaningless, while the other group thought they provided an exclusive opportunity for growth and development.

- It is recommended to change the negative attitude of people towards the training programs. It is necessary to support the implementation of programs required by the community and the cooperative. The selected trainer shall be well aware of the training material and shall use interactive techniques for presenting the material. It is necessary as well to avoid motivating people to participate in the training programs by unrealistic promises.

Finding financial means is the biggest issue of the cooperatives in Armenia. Other concerns of the cooperatives include the quality of the equipment/machinery, which are not suitable to the terrain and break down fast, the quantity and types of the equipment/machinery, due to which not all services are provided in the communities and the cooperative is not able to provide services to all members on time.

The cooperatives change the quality of life of the farmers in the communities: they provide a possibility to their members to take low-interest rate loans and to rent the equipment/machinery of the cooperative with prices lower than the market ones, which is beneficial for every member of the cooperative and, in some cases, the whole community.

- It is recommended for the organizations engaged in the community development to continue working actively with the international donors and, with the help of the latter, to provide support to the cooperatives in acquiring the sufficient number of high quality equipment and machinery. At the same time, it is crucial for public and private donors to ensure that external financial support is reduced to a minimum necessary level, so as to encourage the members of cooperatives to make personal investments in cooperative's assets and/or purchase assets using the reserve funds of the cooperative. This will help foster sustainability, ownership, increased participation in cooperative's activities and departure from a Soviet mentality of an externally controlled entity with no self-sufficiency.

The study revealed that the cooperatives lack well-thought-out and actionable business plans and that the members of the cooperatives have, in fact, very limited participation in decision-making process (with many of them not being interested in getting involved).

- Donors should provide expert support to cooperatives in designing high-quality business plans and set-up reporting mechanisms to follow-up on their implementation. Importantly, the donors should ensure high level of participation of the cooperatives' members in designing these business plans. Efforts should also be put in ensuring that the cooperatives hold regular meetings, where members are informed about all developments, voice their opinions and have a say in decisions made by the Boards. Considering the current lack of interest from the members, the cooperatives, at this stage, could be encouraged to use punitive measures to ensure member participation (such as revoking membership, if a member fails to participate in a certain number of meetings). Most importantly, measures have to be taken to ensure that the elections of governing bodies are fair and transparent.