

**Increasing Presence of Farmer Associations in Local and Export Markets:  
Case of Armenian Milk, Fruit and Vegetable Producers**

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## **Contents**

Abstract .....	3
Introduction .....	4
Agricultural cooperatives in Armenia .....	5
Cooperatives in Armenian dairy and fruit and vegetable producing sectors .....	7
Case studies	
Case study 1 (Lukashin cooperative) .....	10
Case study 2 (Vahan cooperative) .....	11
Recommendations .....	14
Conclusions .....	15
References .....	16
Appendix .....	17

## **Abstract**

Transition towards market economy brought many changes in the Armenian agricultural sector, the result of which was emergence of big number of individual farms with small lands. This situation is weakening the bargaining power of farmers while negotiating with processing companies as well as their operational efficiency and access to local markets. Relatively small volumes of the produce do not allow Armenian farmers to have an easy access to export markets. Organization of farmers into agricultural cooperatives highly promotes the group action among individual farmers and farmer groups and contributes to the consolidation of agricultural production of individual producers, which is an important factor for strengthening positions on local as well as on export markets.

Starting from the beginning of reforms, a number of international supporting organizations became initiators for the establishment of agricultural cooperatives throughout the country. In addition, assistance was provided to strengthen the financial, technical and social components of these organizations, which was implemented through various low-interest loan and grant programs, leasing, trainings and seminars. A special accent was made on the marketing and increase of competitiveness of the produce both inside the country and abroad, mainly directed on improvement of packaging and quality.

Sufficient quantity and quality of agricultural products provided by Farmer Organizations (FOs) and the introduction of “leading farmer” concept highly encouraged processing and exporting companies to express their own initiative for establishment of more agricultural cooperatives in Armenia. These events boosted even more the popularity of contract agreements between farmers and processing/exporting organizations by linking that individual small scale farms to sales markets.

The Center for Agribusiness and Rural Development (CARD) and the Federation of Agricultural Associations (FAA) are now the main initiative-creating organizations for FO establishment providing the whole spectrum of technical and financial assistance to newly created and existing cooperatives. The role of International Center for Agribusiness Research and Education (ICARE), is, along with FAA, to strengthen the social component of agricultural cooperatives through continuous trainings, seminars, expert visits to the fields as well as provision of adapted “easy-to-understand” literature for FOs regarding the contemporary methods and trends in world farming. The role of ICARE is also to prepare highly educated specialists in agribusiness and to encourage their participation in operations of agricultural cooperatives through student internship programs.

From passed experience it is now evident that agricultural cooperatives in Armenia have an immense role in increasing the market access and the market power of individual farmers. In the perspective the cooperation movement in Armenia, not only dairy, fruit and vegetable production, but also other sectors of agriculture should be included.

## Introduction

The groups of individuals around the world and throughout the time have worked together in pursuit of common goals. Examples of cooperation, or common action, can be traced back to the prehistoric predecessors, who recognized the advantages of hunting, gathering and living in groups rather than on their own (Zeuli 2004).

During the Soviet era in Armenia, as well as in the neighboring countries like Georgia and Azerbaijan, the majority of agricultural production was centralized and implemented by kolkhozes and sovkhozes, where the property belonged to the state and the farmers were collectively working in those enterprises to reach the norms and quantity volumes set by the governmental planning agencies. That was the time when quite stable mentality has developed that every citizen had a work, but he or she had to work for the state and the benefits were both directly and indirectly returned to the population. The fact that a peasant could not have his own farmland and animals became a common ideology.

The independence and reforms brought many changes in the agricultural sector and particularly raised a necessity for each farmer to be the manager/owner of his own business, which he never did before. The employee became an employer as well. Open market system and steps to liberalization brought new challenges related to realization of agricultural production, acquisition of raw materials, lack of information and competition.

Armenia is a landlocked and mountainous country located in the South Caucasus with population of 3.22 million. An estimated 64% live in urban areas, of which around half is based in Yerevan. For the one-third of the population that lives in rural areas, agriculture is the main source of livelihood. With very few off-farm employment opportunities, rural inhabitants depend heavily on their small farms for survival (Urutyun, 2007).

First in the early 1990s Armenia and Georgia implemented redistributive land reforms. The first outcome of this reform was the very small size of these family farms, which on average was not more than 1.4 hectares (of which only 1.1 ha arable)<sup>1</sup> in Armenia. The small farm sizes are not conducive to the application and usage of new innovative technology which itself hinders the development of the sector.

As of January 2006, there were about 339,000 peasant farms, which possessed around 485,500 hectares of agricultural land. It is estimated that 88% of the farms are smaller than 2 hectares and they use 77% of the total land area. Twelve percent of the farms are larger than two hectares and they use 23% of land. Agricultural lands and animals were parceled out to individual families and farm equipments were also given to individuals - usually those who operated these equipments. The former system of collective farming collapsed resulting in the emergence of a new farming system on small scale subsistence basis.

Another outcome of the egalitarian reform was the emergence of regional differences. The average farm size varies by the regions. Average farm size in marzes of Ararat (0.61 ha) and Armavir (0.92 ha) were much smaller than, for example, in the marzes of Shirak (2.36 ha) and Syunik (2.97 ha). However this comparison still misses important variables, namely the altitude, the water availability, the soil quality (Hakhnazaryan 2007).

Farmers argue that political and legal environment is not conducive to the development of agricultural sector in general. The regulating role of the government is negligible. Although the fundamental laws related to agriculture are in place, many sub legal acts are either outdated or do not exist. Many amendments in the existing laws are needed.

For sure, farmers were always cooperating, but that collaboration was not formal before and had low action force for good prices bargains, access to new markets and provision of different services. It was only in 90s when with the effort of different NGOs in Armenia some cooperatives were already organized, but for effective operations of cooperatives the appropriate legislative basis is needed. To date, the "Law on Cooperatives" doesn't exist. It's important to have a defined status and criteria for farms, cooperatives, unions, as well as other types of

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<sup>1</sup> Mirzakhanian, A. et al.: Armenia's Private Agriculture, 1998 Survey of Family Farms.

organizations, and elaboration of the relevant taxation mechanisms for application of VAT to fulfill the requirements of the WTO. Currently, only the Armenian Civil Code covers issues about “Cooperatives” (Chapter 5, Article 117-121).

The fragmented nature of the agricultural system led to a number of problems hindering agricultural development. The applications of mechanization was not feasible due to the small farm sizes, farmers had difficulty getting access to agricultural inputs such as fertilizers, quality seeds, breeding stock etc. There was also limited technical knowledge of the farmers as most of them had little or no experience on farming. The most pertaining problem of all was marketing of their produce as production was on a small scale. Aside these and other related problems, environmental problems such as erosion deforestation; salinization aggravated the situation<sup>2</sup>.

Cooperation among farmers is one of the major solutions to the problem. Due to organization of cooperatives farmers can now easier integrate to local and foreign markets and gain the bargaining power. The harvest consolidation now allows organizing the exporting activities of milk products, fruits and vegetables, which are nowadays directed to Russia and the US. This faces some resistance from farmers due to their experience and mentality, linking it to the forced collective farming of the “kolkhoz” system. Efforts have been made by some institutions, NGOs to encourage farmers to organize and provide them with services such as provision of loans, extension service, training and marketing assistance. The idea of cooperating has been adopted by some farmers and has formed organization, but majority of the farmers are still working individually.

This paper presents the dairy and fruit and vegetable sectors in Armenia and those different concepts of how individual farmers joining in a cooperative can benefit and increase their volumes of sales both in local and export markets, establish contracting systems with processors and encourage the cooperative movement in the country through the leading farm concept.

## **Agricultural Cooperatives in Armenia**

Cooperatives play an important role in the Armenian agriculture. There are several agricultural associations in form of cooperatives that undertake production and marketing functions in the dairy, meat, and horticulture spheres. Cooperatives are also important in the farm supply sector. Deregulation and the globalisation of business are increasing the competitiveness of the business environment, and this is impacting on cooperatives as it is on other types of businesses.

The cooperatives apply 3 very important, interrelated components through which the cooperative implements its activities. The components are financial, technical and social, and each component has a unique mechanism of implementation.

*Financial component:* through this component financial resources for cooperative members’ operations are secured.

*Technical component:* this component works in one of the most important areas of providing improved knowledge and services for the coop members’ agricultural production.

*Social component:* through this component, the coop implements not only social and cultural development activities at the local level, but also it applies the User-Owner principle.

Development organizations:

Some organizations are supporting agricultural cooperatives in various ways to increase their presence in markets in the framework of the cooperative. Assistance may be in the form of negotiations with potential buyers, capacity building, consultancy and advocacy, marketing, etc.

*Federation of Agricultural Associations (FAA)*

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<sup>2</sup> Reference to the Term of Reference for the study.

The organization provides support to its member farmers by providing services such as market research, input procurement, bookkeeping, accounting, farm management, advocacy related to tax issues. FAA aims at coordinating supply chain mechanisms of individual agricultural cooperatives and making them efficient in their activities. In 2003, the Farmers organization support program in Armenia (FOSPA) implemented by UMCOR assisted in the establishment of new Farmer organizations and capacity building of the member farmers. Fourteen farmers organization have been established and being supported in their activities. The FAA with support of DAI-ASME (Development of Alternatives) program has establish farm stores in 3 regions providing Agricultural inputs to farmers and organizing the sales of agricultural produce both to public and wholesale buyers. ICCO since 2005 has been supporting FAA in the marketing aspects exporting Agricultural products of its member farmers.

#### *International Center for Agribusiness Research and Development (ICARE)*

The major purpose of the ICARE in relation with agricultural cooperatives is strengthening their social component through trainings and seminar sessions with member farmers. The other purpose that the research center pursues is to identify different market opportunities for the produce of agricultural cooperatives, implement the potential market assessments for particular produce and evaluation of consumer preferences. Due to its contribution, agricultural cooperatives from Ararat and Armavir regions have now an opportunity to present their organically grown fruits and vegetables in a specialized store in downtown Yerevan.

#### *Center for Agribusiness and Rural Development (CARD)*

The main purposes of the organization are to improve the livelihood for rural Armenia and make Armenian products from individual farms and agricultural cooperatives competitive in local and foreign markets. Departments mainly work towards establishment and strengthening of farmer organizations (FO) and particularly the marketing cooperatives. Now organization provides technical assistance to more than 15 FOs and unifies 3,000 member farmers through different projects. The main purposes are: 1) Financial assistance - provision of grants, no interest loans, equipment, renovation of facilities, also importing cooling tanks and milk analyzers. 2) Technical assistance - trainings, seminars, both in office and in communities. 3) Credit Clubs - organization of farmer groups who control the loan portfolio and deliver the loan to members. 4) Gender groups - assisting women to establish FOs. The organization mainly uses the cost-sharing method for acquirement of facilities for FOs. Result of the work is increase in production volumes of cooperatives by 30% annually.

#### *United Methodist Committee on Relief (UMCOR)*

In 2000, UMCOR implemented a 2-year Community Association Project (CAP), which was aimed at establishing farmer organizations in the rural areas of Armenia. The purpose was to activate the interest of farmers by providing technical assistance, information and marketing services. Six cooperatives were established which joined in 2002 to form the Federation of Agricultural Association (FAA). UMCOR supports FAA in establishing more cooperatives through its Farmers Organization Support Program (FOSPA), in capacity building, marketing of produce, negotiations with processors, exporters and wholesale buyers.

#### *DAI-ASME*

Established with the assistance of USAID and the US organization "Development of Alternatives". The main goal is to assist agribusiness SME and agricultural cooperatives to increase their participation in export markets. The organization mostly works with processors and exporters and assists to establish the contracting relations between processing companies, exporters and farmer organizations in the country.

## Cooperatives in Armenian dairy and fruit and vegetable producing sectors

Prior to transition, the milk processing industry had an annual capacity of 320,000 tons of dairy production, about 27,000 tons of cheese and 13,000 tons of ice cream. All former 42 state-owned dairies (milk and cheese) have been privatized. Most of these factories work at a low level of their capacity, and many of them do not operate at all. Production focuses on cheese products, pasteurized milk and other dairy products. There are many small plants (about 500), which produce mainly salted cheese under inadequate hygiene conditions. However, there are several large dairy operations that produce a wide range of dairy products: sour cream, yogurts, milk, ice-cream and cheeses. According to the State Commission for the Protection of Economic Competition of Armenia, no single dairy processing company dominates the market for major dairy products because of wide range of products and large number of processors in the market. There are no foreign direct investments and joint ventures in the dairy sector. Since independence, most of these farms have been dismantled and currently the bulk of dairy production originates from small private farms with 2-3 milking cows.

Table 1 shows key dairy indicators for the period of the last 5 years. Positive changes can be observed looking at the numbers. In particular, the number of cows increased significantly.

**Table 1:** Key Selected Dairy Indicators, 2000-2004

	2002	2003	2004	2005	2006
<b>Number of Cows</b> (x 1000)	270.1	280.8	291	290.1	297.1
<b>Milk Production</b> (x 1000 t)	489.5	513.7	555.2	594.6	632.6
<b>Butter Import</b> , tons	3,303.4	3,644.6	5,268	3,999	2,645
<b>Cheese Import</b> , tons	180.2	253.5	494	552	695
<b>Cheese Export</b> , tons	96.2	1,002.6	1 026	2 292	936

Source: NSS, "Socio-Economic Situation of the Republic of Armenia in 2006".

Milk production in 2006 was 40% more as compared with that of 2000. This is related to the rehabilitation and operation of several large dairy processors who increased their levels of milk collection. The import of milk is increasing but at a decreasing rate. Cheese imports comprised around 695 tons. A very promising fact is the restoration of cheese export. Starting from 2002, cheese exports increased by 10.3 times. Around 17% percent increase of cheese prices, connected with the increase of cheese export volumes, was conducive to significant increase in prices of dairy products.

Table 2 presents the price changes for some agricultural products in the period of 2002-2006. The average retail prices for dairy products increased by about 9%, while the price for fruits and vegetables increased by 67% and 42% respectively.

**Table 2:** Price changes for some food products in 2002-2006 period

	2002*	2003	2004	2005	2006	2002 - 2006
<u>Consumer price indices</u>	101,1	104,7	107	100,6	102,9	117
<u>Food products</u>	102,2	106,9	110,9	100,8	103,3	126
meat products	101,3	105,5	113,3	104,2	103,9	131
dairy products	100,3	97,4	106,4	103,3	101,8	109
fruits	120,7	121,4	114,1	101,2	98,6	167

vegetables	104,3	111	94,4	105,5	122,9	142
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Source: NSS RA, Yearbook 2007

\* previous year is the base

Both processors and dairy farmers have many problems. Processors face the situation where they have to collect the milk directly from small household farms. The results is unstable quality and quantity of milk purchased. These small farms can't meet the necessary sanitary and hygiene conditions for milk production and are not able to introduce new technologies and methods of selection. On the other hand, small dairy farms face selling problem or milk marketing. This presents the biggest problem due to three important characteristics that set it apart from other farm products. First, milk is more perishable than other farm products (unlike most agricultural products, in its fluid form it can be stored only a few days). The second differentiating property is the flow nature of milk. While most agricultural products are being harvested once a year and may be stored for later sales, milk is normally harvested twice a day. Finally, supply and demand of milk is counter-cyclical over the year. These facts put an Armenian dairy farmer acting on his own at competitive disadvantage when dealing with only a few relatively large processors.

**Table 3:** Comparison of agricultural cooperatives versus individual milk producing farms

Degree to which you agree to the following statements	Agree or Strongly Agree	
	Coop.	Indiv.
My main buyer has many suppliers to choose from	79.03	85.71
When competition is fierce, my main buyer will switch suppliers to cut costs	35.5	45.4
The actions of my main buyer contributed to the increase of my output	88.7	66.81
The actions of my main buyer have helped to improve the quality of my produce	83.87	59.24
My main buyer keeps the promises it makes to us	90.33	82.77
My main buyer is genuinely concerned that our business succeeds	98.38	69.3
When making important decisions, my main buyer considers our welfare as well as its own	85.48	49.50
Our main buyer is trustworthy	98.38	90.75
We find it necessary to be cautious with our main buyer	33.82	46.54
Being able to sell to our main buyer has improved the living standard of our household	95.16	65.1
Being able to sell to our main buyer has improved the profitability of the farm operation	98.38	66.41

Agricultural cooperatives allow the individual farmers to establish stronger links with processing companies by ensuring the sufficient quantity of milk at more stable prices and higher quality than the individual farmers can offer.

The implemented value chain analyses present the results that in case of operating within the cooperative the farmers are gaining a bigger share of price both in case of sales for further processing and for raw milk.

**Table 4:** Dairy value chain comparisons



Cooperative	Individual		Cooperative	Individual
Processed milk			Raw milk	
Producers 34%	Producers 28%		Producers 54%	Producers 50%
Processors 46%	Processors 52%		Processor 8%	Processor 12%
Retailer 20%	Retailer 20%		Inter Market 16%	Inter Market 16%
			Final Outlet 22%	Final Outlet 22%

The interviews with cooperative managers revealed that milk processors (buyers of milk) are more willing to deal with cooperatives when procuring raw milk because: first of all it's not feasible for the processors to collect milk from each individual because of high collecting costs, then, cooperatives provide stable high quality milk because cooling tanks allow a longer storage of milk and cooperatives test the milk quality on a daily basis, and finally, cooperatives are more stable quantity suppliers.

**Table 5:** Milk yields and prices received by cooperatives versus individual milk producing farms

Yield and prices	Cooperative	Individual
	Mean	Mean
Winter yield 05, lt	6.1	5.5
Summer yield 05, lt	12.4	11.9
Total yield 05, lt	2451	2265
Average price received in summer season, AMD	94.3	87.9
Average price received in winter season, AMD	105.67	95.1

Source: Urutyan 2007

## Case Studies

In the framework of the study the local village mayors in Nizami village and Hovtashat village, both in the Armavir region, were interviewed to find out the main obstacles to cooperative organizations and the role of local government. The local government was established and started its operation in 1994. The main goal of the local government is to support the rural inhabitants in agricultural development at the community level and also manage the resources of the village. They keep records and statistics on the villages' agriculture, land areas, types of lands, types of crops grown and yields, records on animals kept, farm sizes and the number of farms and household records on the rural people. They are responsible for leasing of lands to individual farmers and collection of land tax. Individual farmers who are not members of a FO usually request for assistance from the local government in getting financial assistance, marketing assistance, agricultural inputs and machinery which is provided through the rural financing program.

In serving the rural community the mayors find it difficult to work with individual farmers, as different farmers may have different needs which cannot all be addressed by the local government. Working with the FOs established in the village is more efficient in addressing the needs of farmers than working with individual farmers and they encourage the participation of more local farmers in forming groups. Through such organized groups, more farmers can be reached and their needs addressed, which will lead to poverty reduction and the development of the village.

## Case study 1

This consisted of semi-structured interviews with Farmer organization 'Lukashin' established by FAA and discussions with neighboring villages where these FOs were located who had information on this FO.

'Lukashin' farmer organization is a consumer cooperative located in the village of Lukashin, Armavir region. The main agricultural activities are growing of fruits (peach, grapes, plums, apples) and vegetables (cucumber, cabbage, carrots, tomatoes, paprika, and herbs). Livestock such as goats and cattle are also kept by farmers in this village.

The FO was established in April 2005 by FAA with the assistance of UMCOR under its FOSPA project. The objective was to help farmers solve common problems in their farming activities together. Problems were related to the marketing of Agricultural produce, access to agricultural inputs, access to credit and technical knowledge to improve upon their farming activities and obtain economic benefits. The cooperative was started with 42 members (36 males and 6 females) and within 2 years of its establishment has increased its membership to 52 with 10 associate members (8 males and 2 females).

The organizational structure is formed according to the bylaw of the organization.

The FO manages its financial system by keeping balance sheets, cash flow statements and income statements. This is done by the accountant who makes the members aware on the financial state of the FO at their general meetings. The General Assembly consisting of all the member farmers meet once in every 3 months to discuss their problems, find solutions and plan for the future. When decisions have to be made, members vote, each having only one vote. In situations when quick decisions have to be made, the five board members meet to decide on behalf of the other members.

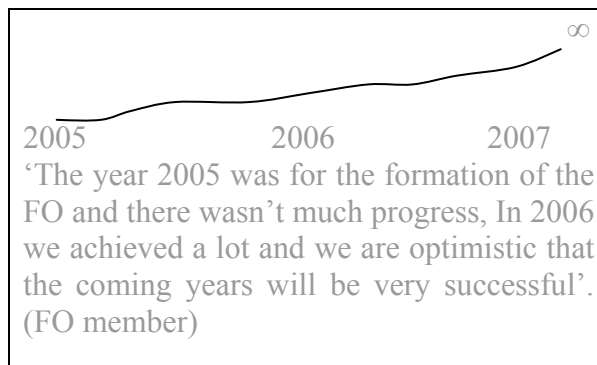
Being a member of the cooperative, each member is expected to contribute 300 AMD per month which is set by the constitution. Aside this payment, members are required to pay 10% service fee to cover transportation cost if the organization has to market their produce or purchase farm inputs for the member farmers. This is however seasonal during autumn and spring when farm yields have to be sold out.

Members obtain a lot of benefits from the FO. Some of the benefits are the timely sales of their farm produce, getting access to trainings on good agricultural practices and farm management, access to loans, agro-chemicals which they would not have access to if they were working as individuals.

In providing services to member farmers, the FO cooperates with other institutions to achieve its goal. The FAA supports the farmers through provision of loans to member farmers at a 12% interest rate and a repayment period of 6 months. Members receive these loans in the form of needed agricultural inputs. The FAA also provides training services and consultancy services for the FO. UMCOR, another major partner assists in the provision of training sessions in accounting, bookkeeping and farm management to help member farmers have a better financial management. 'APAGA SERUND', an NGO in the Armavir region, assists in the socio-economic development. 'International Educational Center', also provides educational training programs, especially for the youth to involve them in the development of the community. 'Save Child' NGO supports the farmers in the village with provision of water through construction of wells which helps farmers to irrigate their fields and have water for their households.

The FO was well organized with good management, and members were satisfied with the services provided and were quite optimistic about the progress and the future of the organization.

Members trusted each other and saw themselves as a family working together to improve their economic situation. This had generated the interest of the farmers in the neighboring village of Khanjyan who had heard of the success story of this FO and the benefits member farmers had achieved and were willing to form a cooperative in their village. Even though they were willing to cooperate they did not know how to organize themselves and were waiting for a supporting organization to start such an organization in their village as was done in Lukashin.



Members of the FO believed in the support of the government in their farming activities, creating laws and policies that support cooperatives. They had been informed of the duties of the government by training sessions that was organized by their leaders through the organization. Non-organized farmers in the Khanjyan village who did not have access to this information did not believe in the support of the government. Both villages however had problems with the government water supply system, as they paid for services which were not provided on time and the water did not flow regularly.

Women were not actively participating in the organization; only 6 women were members with none in leadership position. They looked up to their male counterparts to make decisions for them and were passive members.

The ‘Lukashin’ FO together with the FAA can support in the organization of farmers in the Khanjyan village as they are willing to cooperate. The farmers can be supported in their activities by the already established ‘Lukashin’ FO. Women should be motivated and encouraged to join the cooperative and take more active role in the operation of the cooperative. Members mentioned lower prices received for products sold and their desire to have their own capital to provide loans for the members. The women can be supported to form small scale enterprise which can process some of the produce (eg. dried fruits) to be sold during the lean season.

## Case study 2

‘Vahan’ milk collecting cooperatives established by the USDA/MAP was visited.

This cooperative was established in July 2001 with 33 members by USDA/MAP, it is now supported by CARD cooperative development program, in Vahan village, Gegharkunik region. The total membership is 60. The cooperative was formed with the aim of collecting and marketing milk produced by the member farmers. Member farmers supply milk daily to the cooperative. The cooperative has storage and cooling facilities to store the milk for selling out and can also test for the quality of the milk. Member farmers with a lot of cows have the cooperative's truck coming to their farms to collect milk. Payments for the milk sold are given to the farmers after taking the operating cost (payments for employed staff, utility cost etc.). Members are required to pay a monthly fee of 450 AMD per month to the cooperative. Training, consultancy and technical assistance from CARD cooperative development program are sometimes organized for members, to help them improve on the quality of the milk. Loans are also provided to the member farmers by ‘Aregak’ micro-credit program. Heifer international also supports farmers giving them pregnant cows that the farmers keep and return after three years. The cooperative has success of increasing the number of cows kept by their members through this project, which has led to the increase in the milk output of the cooperative and in the income of the farmers.

Members of the cooperative mentioned the cooperative as an assured market for the small amount of milk that they were producing. Payments were made on time and members were happy with the way this was done and were willing to continue working with the milk marketing cooperatives. To sustain the cooperative and its relation with the processing company, the

cooperative should organize more training sessions on regular basis for members on milk quality improvement, animal husbandry, farm management and managing finance of the cooperative. Building the capacity of the members will ensure an improvement in the production level.

The cooperative has future plans to have its own cheese processing company to process the milk collected from the member farmers. This requires a lot of money for purchasing of the needed equipments, and assistance will be needed from supporting institutions or money will have to be borrowed from the bank. The cooperative can increase its membership by motivating other willing members of their community and the neighboring village. This will ensure economy of scale and will produce at a lower cost. Women can be trained in the processing of milk to cheese and will run the company when established.

#### *Types of farmers' organization and objective*

The cooperatives that were established by FAA and UMCOR were in the fruit and vegetable production and were located in the regions where these agricultural products were being produced. CARD-supported cooperatives were involved in milk collection, marketing and processing into cheese. The main objective of cooperating was for the economic benefit, marketing of their products and also receiving financial assistance.

#### *Members and membership*

For one to become a full member, he or she has to pass a probation period of one year before being registered as a member. During this period, the principles and procedures of the cooperative are explained and the farming activities of this individual are observed. Membership fee varies from 300 to 6000 AMD depending on the cooperative, for FAA cooperatives, the membership fee was the same for all, fixed at 300 AMD. Farmers living in the same village and engaged in the same farming activities were members of the cooperative.

#### *Structure*

The cooperative structure was defined according to their bylaws and they all had a similar structure. The General Assembly is the highest position which is made up of all the members of the cooperative. They own the cooperative and make decisions on how to run the cooperative. They meet once in every three months to discuss their priority areas and approve projects to be implemented. Each member of the cooperative has one vote only according to their bylaws. Board of directors consists of 5 persons who are members of the cooperative who identify priority areas and work on the implementation of the FO projects. In situations where quick decisions have to be made, the board members meet to decide on behalf of the cooperative. There is one FO manager who manages the day to day activities of the organization. The Audit committee consisting of three members controls the financial aspects of the FO. The cooperative also had other employees like agronomist, veterinarian who provide other services like training and consultancy.

#### *Contributions and benefits*

In addition to the membership fee, members sometimes have to pay a 10% service fee as transportation cost if the cooperative is providing service such as selling or transportation of their products to the market or purchasing of agrochemicals and fertilizers. Members have the benefit of marketing their produce, access to low interest loans, access to training, and access to agrochemicals, seeds, fertilizers and fuel.

#### *Cooperative or cooperation management and leadership*

Cooperatives were managed according to their bylaws. Cooperatives keep books; balance sheet, cash flow statements, income statement and had trained accountants running the finances of the cooperatives. Cooperatives were managed well and managers attend trainings organized by the FAA and UMCOR on farm management and financial management. From all the cooperatives studied, the management position was held by men.

### *Reasons for failure of Farmer organizations*

Some of the problems faced by agricultural cooperatives have been, among others, poor management, lack of capital resources, inadequate training, extension and education programmes, lack of communication and participation among members, feudalistic characteristics of society, unclear and inadequate government policies on the development of agricultural cooperatives, high fragmentation of land holdings, and weak linkages among the activities of the cooperatives, e.g., production, credit, marketing etc. Lack of understanding of the three main principles of cooperative was mentioned as the main reason. Some members fail to understand that the cooperative is owned by the members and not by the manager. They do not understand their rights in the cooperative and do not take the participation in the decision making of the cooperative serious. Poor management of the cooperative also often leads to the failure of cooperatives. Some managers lacked managerial skills and were not running the cooperative efficiently. Both the FAA and CARD organizes training programs for managers and encourage their participation.

To overcome such problems, some of the measures taken by the governments and movements have been: re-assessment and improvement of farm policies, human resource development through formal and informal training of members, development of commercial partnership and joint ventures with private enterprises, development of marketing and agro-processing, implementation of self-reliance projects, diversification of agricultural products including the development of export-oriented crops through contract farming, promotion of universal membership, and strengthening of legal framework of cooperatives.

### *Participation of women in FO*

In Armenia there are no farmer cooperatives with only women members. In cooperatives where women were present have a very small number of women compared to that of men. Women were not actively participating in the running of the FO even though they had the potential. The low level of participation can be attributed to a number of factors:

#### *A. Time scarcity*

Women have a lot of work to do and have less free time to get engaged in other activities. Women take care of home and children and also work on the family farm in all stages of production, from planting to harvesting. After harvesting of produce it is woman's duty to process the products that are not sold in the fresh form, eg. milk into cheese and matsun; drying of fruits, 'Charaz', etc.. All these works are done manually and take much time so the women have less free time to get engaged in other activities.

#### *B. Lack of control over resources*

Women work on the family farms but do not have much control on the lands and animals. Decisions on what to grow on the land and marketing of produce are usually taken by men. During cooperative meetings, one member of the family has to represent the family, either the wife or the husband; most often it is the husband since he decides for the family. Women are reluctant to register as members of a cooperative when their husbands are already members.

#### *C. Culture and mentality*

Rural areas in Armenia have very traditional societies where norms are highly valued. Roles for males and females are informally defined. Leadership positions are mostly for men and even if a woman is in a leadership position it still is limited. Women sit silently or propose their husbands ideas during meetings at the community level.

#### *D. Lack of employment*

Women in Armenia are not discriminated in terms of access to education. After marriage and child birth, most rural women stay at home and do not work outside the home. They depend on their husbands and do not have capital of their own. They may not be able to pay membership fee if they should register with a cooperative.

#### *E. Small scale farming*

A lot of men from the rural areas have migrated to Yerevan or abroad, leaving the women. The women farm on very small scale and may not sell much of their produce. Because of their small scale of farming they do not consider it beneficial to join a cooperative.

## **Recommendations**

### *Capacity building*

During the Soviet times most women in the rural areas were employed and working. During the transition period, they had to survive on subsistence farming to support their family. Their skills and talents in these fields have not been used for some time. Retraining these skills can be very useful for community development. Support from institutions is needed in training and provide the initial capital for the start of business.

### *Formation of women group and building self confidence of women*

Cooperatives can form a women's group in the village based on their needs and support them in their activities. This will make them active in running their own activities. By mechanization of the processing by using simple techniques like dryers instead of air drying, fruits can increase production as well as save some time. Formation of a women's group in the community, putting together resources and division of labor during the processing stages can reduce the burden of individual work. The cooperative can support such women's group in the marketing of the products.

Participation of women in decision making makes decisions more impartial and richer since women and men have different needs and opinions. Women should not be excluded from the decision making process but rather be encouraged to attend meetings and take active part in decision making. Men should be convinced of the importance of involving women in decision making and acknowledge women as team members. Through this approach, a favorable environment will be created for both men and women to work together expressing opinions freely.

## **Conclusions**

The establishment of effective links between the small scale producers and producing, processing and exporting groups is one of the key factors for the sustainable development of agriculture in the country. Organization of farmer groups in form of cooperatives can highly increase the production productivity on the fractionalized land plots and contribute to the consolidation of available capital to increase the access of farmers to local and export markets. The sustainability level of currently operating cooperatives is still quite low and the efforts of local and central government bodies and supporting non-governmental organizations should prioritize this issue. The country scale examples as well as the case studies in the selected cooperatives present the actual benefit that can be acquired due to the group action and initiative.

Armenian small farmers are not able to effectively compete on export markets and the access to local processors, wholesalers and retailers becomes a difficult task, the solution of which is the organization of farmer organizations; the basis for this is already established in the country.

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## Appendix

### **An export success story: Armenia's largest brandy producer**

One of the fundamental challenges to exporting from Armenia is to produce a product that consistently meets the demanding quality standards in major markets. One agricultural processor that has successfully done this is the Yerevan Brandy Company (YBC), the largest Armenian brandy producer and the subsidiary of Pernod Ricard S.A. One of the keys for success for YBC is their comprehensive relationships with their producers and particularly the farmer cooperatives, agreeing to purchase the grapes at pre-agreed prices. YBC is in good business relationship with grape producing cooperatives (Lukashin, Janfida agricultural cooperatives) by supplying them with a range of inputs, such as fertilizer, arranging for prompt payment and providing agronomic and business counseling. YBC has also taken the biggest grape producer members of cooperatives on international field trips to show them viticulture in other countries as a training tool. These investments in its suppliers have benefited the YBC by increasing the quality and uniformity of the grapes it issues to manufacture brandy for export markets.

The case proves how effective can the cooperation between a processor and cooperatives be and how beneficial it can be for both parties.

Currently the production volumes of the company are about 6 million bottles, 93% of which is being exported and 87% of which goes to Russian market.

### **An export success story: Euroterm fruit juices**

Armenian fruit and vegetable processors have difficulty competing in many export markets for standard-grade processed products. One reason is that foreign food and vegetable processors in many competitive markets are able to purchase their raw materials at relatively low prices, as supply in those countries is far in excess of the demand for fresh product. In Armenia, however, processors have to compete with the fresh fruit market and this drives up their raw material costs. Therefore, processors in Armenia need to specialize in non standard products and high value markets.

One of the largest and most successful exporters in the fruit-processing sector is the Euroterm, based in Yerevan, which started contracting agreements with Armenian fruit and vegetable producers. The contracts enable farmers to have a relatively insured market for their produce and on the other hand the company can insure the satisfactory quantity and quality of inputs.