

## Problems at Farm Extension and Advisory System in Armenia

Gagik Sardaryan<sup>a</sup>, Sona Telunts<sup>a</sup>, Vardan Aghbalyan<sup>b</sup>, Vahe Mambreyan<sup>b</sup>

<sup>a</sup>1/21-40Azatutyanstr, Yerevan 0037, Armenia. [gagik.sardaryan@card.am](mailto:gagik.sardaryan@card.am);  
[sona.telunts@card.am](mailto:sona.telunts@card.am)

<sup>b</sup>1- 62/1 K. Ulnetsi Str., Yerevan 0069, Armenia, [vaghbalyan@ampartners.am](mailto:vaghbalyan@ampartners.am),  
[vmambreyan@ampartners.am](mailto:vmambreyan@ampartners.am)

**Abstract:** One of the large-scale projects initiated by the Center for Agribusiness and Rural Development (CARD) Foundation is the creation of the Farm Service Centers (FSC) network. The establishment of FSCs aims at providing the farms with up-to-date agricultural information, advisory and technical support, machinery, equipment, tools, high quality veterinary medicine and inputs, pesticides for plants and trees, as well as improving the provision of veterinary, artificial insemination, horticulture and other agriculture related services. The FSC network was launched in 2011 with the support of various donor organizations, including the United States Department of Agriculture (USDA), OPEC Fund for International Development (OFID), World Bank (WB), United States Agency for International Development (USAID), Austrian Development Agency (ADA), Swiss Agency for Development and Cooperation (SDC World Wildlife Foundation (WWF)). As of March 2017, there are 16 FSCs established and operating, and 4 more will be opened soon or are in construction phase. Through establishing the network of FSCs, CARD has linked them on the one hand with world leading farm suppliers and knowledge centers and on the other hand with nearby community farmers. This paper will describe how from one single veterinarian who participated in the trainings and workshops organized by CARD Foundation, a new, private and sustainable farm advisory, information and educational system has been created. The following sections of the paper provide information about the current state of advisory services in Armenia, detailed description of FSC operation model, problems and obstacles currently faced by FSCs managers, and a roadmap on how to overcome those obstacles. The study has been conducted based on the result of FSC and beneficiary farmer survey, which provided both quantitative and qualitative image of situation, namely current problems and development potential.

**Key words:** Armenian agriculture, farm advisory services, private extension system, sustainability, impact.

### Introduction

Armenia became an independent country in May 1991 following the collapse and disintegration of the Former Soviet Union. A very high degree of integration into the Former Soviet Union economy induced economic collapse in Armenia, when the inter trade, payments and financial system broke down. The first step the Armenian government took, was the privatization of lands and agricultural means, and has since then tried to implement an appropriate model for farm extension and education system.

Land privatization was initiated in 1991 and was the single most important factor contributing to household food security during the period of war and blockade. Rural households cultivated or used most of the available land resource through a combination of private ownership and leasing of state lands. Some 320,000 farmers have been allocated small farms – with scattered parcels of land – averaging between 1.4-1.7 hectares. Livestock was privatized at the same time as land, on

the basis of five cattle and 20 sheep per household but the price and commodity tax initially set discouraged many farmers to accept animals.

With food import falling drastically as a result of foreign exchange shortages and of the blockade, food supplies had to be maintained from domestic production and the overall production pattern changed consequently.

Back in 1992 the Armenian government has requested USDA to support with the development of farm advisory system in Armenia through US Embassy in Yerevan. Since that USDA launched a farm extension support project contracting many US Land Grant University Extension service specialists to assume short and long term assignments in Armenia. USDA tried to support the development of local farm extension service within Ministry of Agriculture (MoA) of Armenia in early 1990s. Then this project was combined with WB efforts on creating and supporting Agricultural Support Regional Centers (ASRCs) as a part of the government structure. In the beginning of 2000s USDA changed the concept and started to develop the farm extension and education system within the Armenian State Agrarian University (ASAU), similar to the US Land Grant University Extension system. This project was funded by USDA till 2005 and collapsed when USDA withdrew the funding.

The objective of CARD's initiative was to increase the access of subsistence farmers to advanced veterinary and horticultural services, input supplies, information and knowledge through the establishment of FSCs in different regions throughout Armenia.

Three FSCs were established to offer wide range of services, among them:

- veterinary services – genetic improvement, disease prevention and treatment,
- animal health medicines, veterinary input supplies, farm supplies,
- horticultural services and input supplies for greenhouse growers
- technical assistance, links to supply market,
- business development, marketing information and financial services.

Since the establishment, all the FSCs have gone through a difficult path in order to have an access to the agricultural products and services market and become successful. In this regard, some of the FSCs have succeeded and currently are on the development track, while others are slow in this process both for objective and subjective reasons. In spite of the efforts put by CARD Foundation for the regulation and standardization of the Centers' activities, up to now the Centers have undergone different development stages and directions, mainly conditioned by the professional skills of the FSC's management. Taking into consideration the current situation, as well as the further plans of extending the FSC network, CARD Foundation has initiated the evaluation of:

1. The FSCs' role and significance in the animal health provision sector in Armenia;
2. Further development prospects and opportunities of FSCs;
3. The correspondence between the products and services offered by the FSCs and demand from current or potential consumers;
4. The activities of functioning and planned Centers based on accumulated experience and lesson learnt;
5. The preconditions and conditions of the FSCs to provide economic and financial sustainability.

## **Background**

### ***About CARD***

The Center for Agribusiness and Rural Development (CARD) is a private, non-profit seeking foundation that promotes economic growth through market-driven, client-centered interventions in agriculture and food production. CARD was established in 2005 as a local Armenian foundation supported by USDA to develop agricultural production and processing industries, and supporting rural communities to improve their living conditions.

CARD Foundation along with two daughter organization CARD Agroservice CJSC and CARD Agrocredit UCO CJSC formed a “one stop-shop” economic development organization with a highly-trained and motivated staff, a broad client base, and unparalleled country-wide coverage throughout Armenia.

CARD Agroservice CJSC was launched in 2006, which is specialized in import of high quality input supplies, such as seeds, dairy ingredients and livestock semen, environmentally friendly pest and disease control products, agricultural equipment and machinery etc. CARD Agroservice CJSC is passing its expertise through linking world leading agriculture input and machinery producers to the interested organizations/agents, farmers and agribusinesses in the regions of Armenia on high quality input supplies, transferring new technologies and innovative solutions.

Another business arm of CARD is CARD Agrocredit UCO CJSC established in 2008, which provides financial services to farmers, food processors, exporters and other agricultural related entities. CARD Agrocredit finances agricultural value chains, registering multiple effect at agribusiness and farm level and well as new, start up and innovative agribusinesses.

### ***Development of FSCs***

The establishment of the first FSC (initially called farm and veterinary service center – FVSC) was aimed at increasing the access of subsistence dairy farmers to advanced veterinary services, input supplies in the Sarnakunk village of Syunik region of Armenia, with the aim of servicing about 5,000 farmers. This FSC was established to offer wide range of services in animal husbandry, among them: veterinary services including genetic improvement, disease prevention, and treatment; animal health medicines, veterinary input supplies, farm supplies, technical assistance, links to supply market, business development information, financial services etc.

CARD foundation has provided trainings and capacity building of veterinarians in the period of 2006 – 2014 through USDA project in Armenia. Among those veterinarians there were some active participants who wanted to start a private business in the field of veterinary and other animal husbandry services.

As a next step along the ongoing trainings and workshops, CARD Foundation applied to USDA and got approval to design and build a center, and develop a business plan and model to promote private vet and farm extension services. Suren Vardanyan, one of those active veterinarians, was chosen to run the operations of first FSC in Syunik region. Suren previously had already started private services in his small garage in the backyard of his house inseminating 35 cows in the first year.

Today Suren provides artificial insemination (AI) services to more than 1500 farmers, has registered his own private business and rented the center from CARD. Another 12 veterinarians get vet medicines and other farm supplies from Suren’s center and provide the AI and vet

services to more than 5500 farmers. The Center in Sarnakunk village soon became a hub for many veterinarians and advisory/information unit for farmers.

After successful launch of the first FSC, CARD Foundation started to look for more funds and reached to other donors, such as OFID, ADA, USAID, GiZ etc. to expend and scale up the success. After getting funding from different donors and development organizations more centers were built in other regions of Armenia.

All FSCs throughout Armenia, have the same design, layout, and operations that demonstrate a model of “private extension service” in Armenia. It is important to mention that very often these services provide extension services as an embedded service along with high quality inputs. Free of charge services also include: trainings and workshops for farmers on various topics related to animal husbandry, crop production, greenhouses, orchards (trainings will be designed specific to the main agricultural activities of a particular region); training, workshops for agricultural professionals (veterinarians, agronomists, etc.); consultancy and advisory service provided by local expert (veterinarian and/or agronomist), CARD and invited foreign experts.

These services also include but are not limited to: examination of animals and vet services provided at the farm including hoof trimming, dehorning, pregnancy check by rectal palpation, diagnosis and treatment of obstetrical, respiratory and digestive system diseases etc.

The FSCs also provide business development services such as: business training/advisory services, farm management trainings, trainings/consultations on “how to apply for credit” or “better management of credit resources”; information and reference services: including information about various supplies of agricultural inputs, business directories, price lists of various agricultural products, market information on agricultural outputs, etc.; advisory services in business and financial planning, rural credit and leasing. All free of charge.

The services regarding business development and facilitation include: advertising space service for the sales of agricultural products, services; computer, printing and scanning services; internet service; renting a training facility for various development and/or other organizations; credit and agricultural machinery/equipment leasing.

FSCs became a model of private extension service in Armenia contrary to the state model which has been changed many times and still is not functioning well.

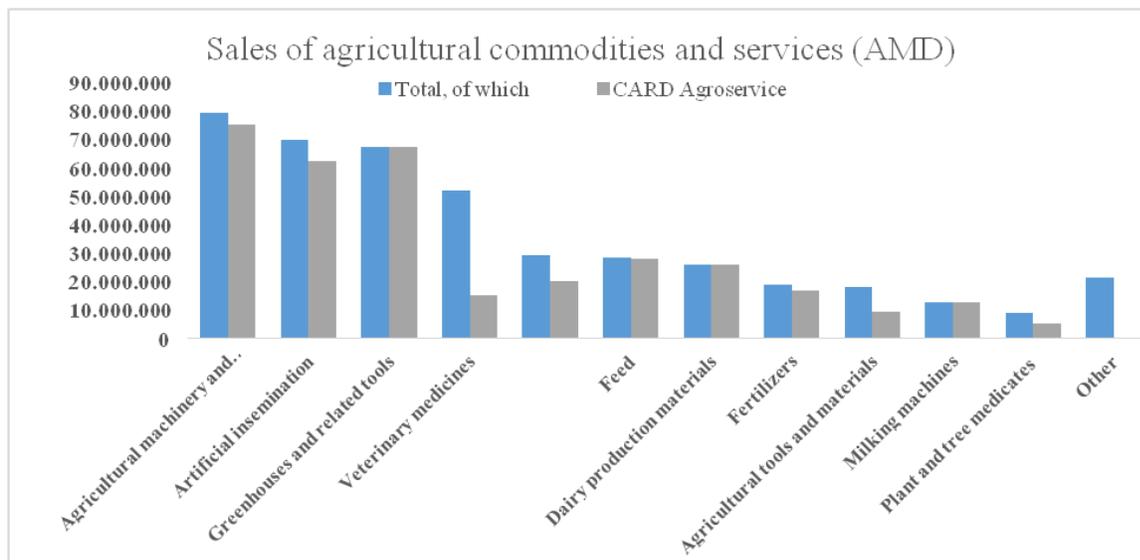
A new model of private extension service was created in Armenia. The first 1.5 years of operations FSCs proved their financial self-sufficiency in provision of private farm extension services. The unique model and capacities of these centers attracted several world leading agriculture input and equipment producers, such as De Laval – Sweden, John Deere – USA, Chr. Hansen – Denmark, World Wide Sires – USA, Abbot & Cobb INC - Vegetable seeds, USA, Rijk Zwaan – vegetable seed, and Kopert – Bio pest control systems, The Netherlands and many others to provide free of charge trainings and workshops to the FSCs managers, specialist and farmers.

CARD foundation through its affiliates CARD Agrocredit CJSC has established credit facilities within the centers though which farmers in these regions got access to agricultural credits, farm machinery and equipment leasing.

Today there are 16 Farm Service Center (FSC) operating in Armenia under the CARD coordination and facilitation, among which 12 are more for animal breeding and veterinary services and 4 are more horticultural services. This specialization depends on the regional agricultural development. One of the centers is fully committed to greenhouse farming because

about 500 farms in the nearby communities are growing vegetables. Agronomy services related crop protection, seed selection and fertilization, sales of different agricultural input supplies, tools and farm equipment (including leasing and credit sales). Figure 1 presents sales of agricultural commodities aggregated by their categories done through FSCs.

**Figure 1.** Sales of agricultural commodities and services



According to the image drawn by Figure 1, it can be observed that the top 5 mostly sold product categories are agricultural machinery and equipment, AI materials, Greenhouse and related tools, veterinary medicines, and fishery and hunting products.

FSCs of different specialization have a significant difference in their sales and services structure. The dominant part of the sales of FSCs, specialized in **Veterinary services**, falls to: 1) artificial insemination services sales (28%<sup>1</sup>), 2) veterinary medicine sales (21%), 3) agricultural machinery and spare-parts sales (17%).

Provision of agricultural services, in particular AI and other veterinary services, is very important for the FSCs to the extent that they promote and multiply the sales of other goods and services. A good case of the mentioned is FSC located in Azatan village which has already succeeded in this effort, mainly due to the establishment of an own team of AI technicians, enabling the provision of services in a broader number of communities with a wider geographic coverage. It's not by chance that the veterinary medicines constitute the second largest item in the sales of FSCs.

Agricultural machinery are special in the sense that they belong to the category of goods high in price and sold less than the other items. Agricultural machines have a significant portion in the turnover of the FSCs, mainly conditioned by their prices.

**Sales of FSCs specialized in horticulture, mainly consist of:** 1) sales of vegetable crop seeds (30%), 2) greenhouses and their supplies sales (25%), 3) agricultural machinery and spare-parts sales (14%). It's worth mentioning that all the specified numbers are almost fully conditioned by

<sup>1</sup> All the indicators are based on 2016 results

Darakert FSC indicators (especially for the greenhouse sector). The latter ensures a 4.5 times higher turnover compared with the other three FSCs, specialized in horticulture, altogether.

Nevertheless, this study shows, that developed FSCs has limited coverage and are not fully reaching the farmers in the regions they operate.

### **The Operating Model of FSC**

While establishing the network of FSCs, the team was looking for the best model of FSC management which would enhance **institutional, economic and social sustainability**. The discussions of various models and thorough analysis of international experience brought to the following mechanism, which has already proven its sustainability in the mentioned aspects.

The main acting bodies:

**CARD Foundation:** Within this mechanism CARD Foundation owns the buildings of FSCs. The foundation is responsible for establishing new ones, designing, making market analysis to identify development binding constraints related extension services and implement development projects through FSCs.

**CARD Agroservice CJSC:** CARD Agroservice CJSC is a big supplier of agricultural inputs in Armenia and also provides high quality extension services. CARD Agroservice cooperates exclusively with world leading input producers and has adopted a strategy of penetrating top quality agricultural inputs into Armenian market, which directly promotes application of new, more efficient technologies of production and processing, as well as is good mean for “collecting” and “distributing” the know-how accumulated at these developed international companies which spend millions of dollars on their research and development and have the most updated technologies and experts. The main objective of bringing Agroservice to this mechanism of FSC operations, was aiming to expose local farmers to top quality produce and services to enhance flow of information. The team understood that the price-quality combination offered by Agroservice might not be affordable for a lot of farmers, therefore a decision was made not to limit FSCs with the selection of input suppliers. FSC managers are free to cooperate with Agroservice as well as any other national or international level input supplier. Summarizing the above mentioned, CARD Agroservice is one of the many input suppliers for FSCs, which tries to introduce advanced technologies to the agriculture of Armenia through provision of high quality inputs and consultancy.

**FSCs:** As already mentioned, the building of FSCs belong to CARD foundation and are rented out to sole entrepreneurs (usually these are lead farmers, veterinarians or agronomists) who operate the business and possess all the profit generated by the sales of supplies and provision of consultancy and other agriculture related service (veterinary, AI etc.)

### ***Sustainability of the Model***

Coming back to the sustainability requirements set forward by project implementation team, it needs to be highlighted that:

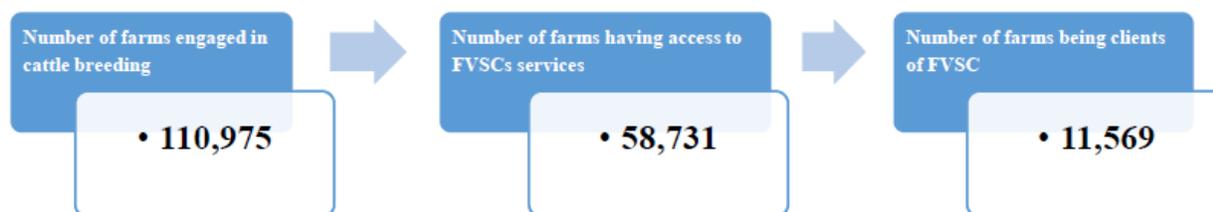
- ✓ **Institutional sustainability is enhanced.** Because the buildings belong to CARD controls the purposeful usage of the building through renting contract (e.g. FSC managers must use the building for only agriculture related input and service provision). CARD together with other organizations continually provide extension services without damaging FSC operations. These extension services often come from a related project, national level strategy etc.

- ✓ **Economic sustainability is enhanced.** The business of FSC belongs solely to FSC manager, thus they have financial incentives to operate it as effective as they can. Gaining higher reach of services will provide more incomes to them.
- ✓ **Social sustainability is enhanced.** Joined impact of the established mechanism creates favorable conditions for agriculture development. Considering that (a) 45% of Armenian population is engaged in agricultural production and (b) lack of knowledge and education is the main binding constraint to the development of the sector, it can be ascertained that the established mechanism has strong sustainability given market and social development of Armenia.

### Access to FSC’s Services

Currently, as a result of launching 12 FSCs with veterinary specialization, 59 thousand farmers engaged in cattle breeding (out of 111 thousand) have access to high-quality agricultural services. The direct clients of these FSCs are about 11.6 thousand, which is 10.4% of the total number ((AM Partners Consulting Company and CARD Foundation, 2017).

**Figure 2.** Access to services provided by FSCs specialized in veterinary services



The statistics related 4 FCSs with horticulture specialization are more modest. As a result of their operation 66.4 thousand farms (out of 346 thousand) have access to high quality agricultural supplies and services. The number of direct clients of these FSCs is 4.8 thousand, which is 1.4% of the total volume (AM Partners Consulting Company and CARD Foundation, 2017).

**Figure 3.** Access to services provided by FSCs specialized in horticulture



Over 52 thousand farms engaged in cattle breeding (47% of the total number) do not have access to the services provided by FSCs specialized in veterinary services. Regarding horticulture sector, over 279 thousand farms (81% of the total) do not have access to the services provided by these FSCs (AM Partners Consulting Company and CARD Foundation, 2017).

These numbers would be lower if FSCs specialized in veterinary service would be able to provide services in horticulture as well, however, it is not possible because these centers have neither required human resources nor enough capacities.

The low level of access to services provided by FSCs is explained by the following problems:

- ▶ Few number of FSCs and limited geographical coverage of centers;
- ▶ Poor level of FSC management;
- ▶ Imperfect relations between FSCs and national level service providers.

### ***FSC beneficiaries***

The range of FSC beneficiaries includes entities engaged in agricultural operations, particularly all rural households (having physical or legal status) engaged in horticulture production and animal husbandry, as well as specialists providing agricultural services including agronomists and veterinarians. The latter are intermediaries between FSCs and final consumers of their products/services, namely rural households. It needs to be highlighted that the number of intermediaries (agronomists and veterinarians) between FSCs and rural households is very limited, about a dozen, and is hardly comparable to the large number of rural households.

The small shops in the rural communities buying their products from FSCs are also considered to be FSC beneficiary, however, the number of such shops is very limited, because for them it is not financially profitable to buy from FSCs. The FSCs cannot be a wholesaler/supplier and provide affordable prices, thus allowing small shops to operate as intermediaries between FSC and rural households.

Currently, about 99% of 15-16 thousand FSC beneficiaries are the final consumers of agricultural products and services, namely rural households. The latter are very diverse. They are different by their main activities (animal husbandry vs horticulture), by the type and number of animals bred by them, by the amount of land under their production, by production volumes, by the volume of production commercialization etc (AM Partners Consulting Company and CARD Foundation, 2017).

The mentioned characteristics of beneficiaries in addition to the level of their knowledge and education related agricultural production, are largely impacting their usage rate of agricultural inputs and services. For example, if the household is producing cheese for home consumption (usually these are small households owning 1-2 cows), than the usage of cheese production inputs (forms, colors etc.) by them is also small compared to the ones who produce cheese for market sales. Alternatively, if the household owns 1-2 cows, acquisition of a milking machine would be an unjustified expense. Another example is having small lands (few hundred or thousand square meter), in case of which investing in agricultural machinery or applying for such services is unreasonable. From this aspect, the characterization of beneficiaries is a crucial factor in describing their usage of agricultural inputs and services.

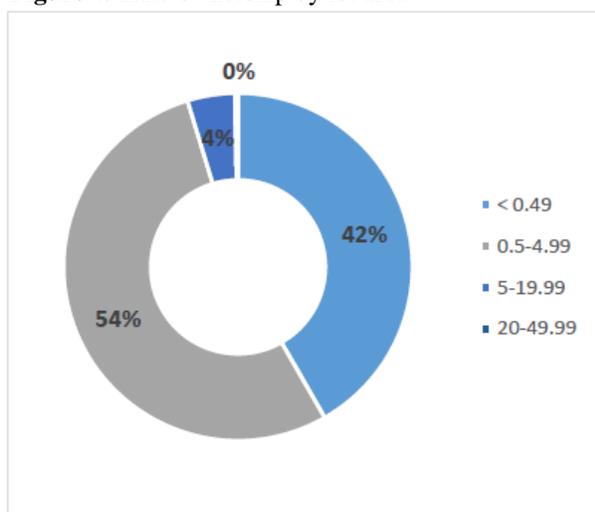
The below table provides information on how the rural households are distributed in Armenia by their land and livestock ownership. The information related animal husbandry refers to only the ones who are engaged in cattle and pig breeding, considering the fact that FSCs are specialized in these two directions.

**Table 1.** Households aggregated by agricultural land and cattle ownership

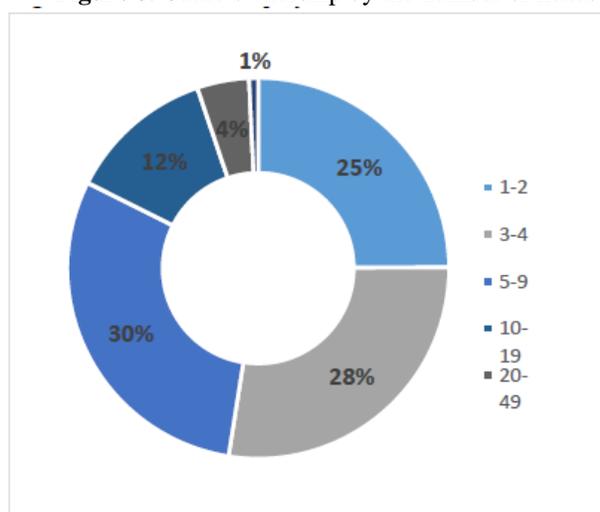
Number of households/farms engaged in horticulture, total	Of which' by the land lot area(ha)												
	< 0.1	0.1-0.19	0.2-0.49	0.5-0.99	1-1.99	2-2.99	3-4.99	5-9.99	10-19.99	20-49.99	50 -99	100-199	>200
345,875	78,447	24,461	41,391	61,971	69,878	31,217	22,295	12,359	2,857	829	119	37	13
Number of households/farms engaged in cattle breeding, total	Of which' by the number of animals (heads)												
	1-2	3-4	5-9	10-19	20-49	50-99	100-199	200-499	>500				
110,941	27,654	30,577	33,194	13,779	4,881	671	155	29	1				

Source: Agricultural Census, NSSRA, 2016

**Figure 4.** Land ownership by lot area



**Figure 5.** Cattle ownership by the number of heads



The above mentioned information is very important for market targeting strategy development by CARD Foundation and FSCs, because all those households which are too small in their operation size cannot be a target and prospective market for FSCs. Among those households the following can be classified:

- ▶ Households engaged in horticultural production which own land lot area smaller than 0.5 ha (including those which own number of small lots in different places). The proportion of such households in total number comprises about 42% (over 144 thousand households) of the total number;
- ▶ Households engaged in cattle breeding owning 1-2 heads of cows, the proportion of such households comprises about 61% (about 63 thousand households) of the total number.

### FSC Stakeholders' Needs

The evaluation of the FSC stakeholders' needs has been implemented through the organization of focus group discussions (FGD) with them. Fifty-six stakeholders and 7 veterinarians (farmers engaged in animal breeding activities) from 30 communities have participated in these

discussions. Forty-eight out of 56 stakeholders who participated in FGDs were engaged in animal husbandry, 13 of them in swine breeding and 10 of them in sheep breeding. FGDs have been held in February-March of 2017.

FSC stakeholders' needs can be divided into 2 parts: a) directly related to FSCs b) indirectly related to FSCs. It is worth noting that the needs are few in quantity, as the stakeholders themselves face difficulties when evaluating their needs. These difficulties are partly objective: the stakeholders are not able to get informed and adopt innovations related to veterinary service sector (new technologies, tools, medicine, animal feed) on their own, so they cannot create demand. However, the experience shows that after getting to know the innovations, the stakeholders start purchasing goods and services that are new for them. So, we can conclude that in Armenia, in veterinary service sector, it is mainly the supply that creates demand. With this realization the FSCs need to put consistent efforts for raising awareness about the goods and services offered by them.

### ***The stakeholders' needs directly related to FSCs***

The FSCs need to increase their range of products, replenishing similar product types with less expensive items. Upon this issue stakeholders and community vets are of the same opinion. Community vets admit that agricultural products from US and Europe may be more expensive than equivalent products made in other countries. However, they believe that they are the ones to make the choice between “expensive and high-quality” vs “cheap and of unknown quality” products, conditioned first of all by their purchasing power rather than high quality of the products. In this regard, the stakeholders and vets argue that if the farm is small or if its purchasing power is low, the farmers cannot afford to buy an expensive product, even if they are sure of its high quality. They try to buy cheap products in accordance with their financial state. Unable to find those products at FSCs, the stakeholders search them in other shops selling agricultural goods inputs that are located nearby the FSCs, and those who have the chance, order the products or personally buy them in Yerevan. Even if the arguments brought by the stakeholders connected with the range of products or their quality are debatable, the FSCs have to deal with them by all means. The FSCs operate in highly competitive sphere, and the competitors successfully manipulate the argument that they also offer high quality, but at the same time more accessible products. In this case, the stakeholders can ascertain which product is more profitable by their own experience, comparing price and quality. The fact is that the number of farms that have low purchasing power and at the same time create real demand for agricultural products is so high, that not referring to this segments is equal to not making use of market opportunities.

*Some of the FSCs have dealt with the stakeholders' demand to increase the range of products and replenish the range of required items from other suppliers. Only because of the fact that in this way FSCs are able to increase their product turnover volumes, make profit from it and suffice the stakeholders' demand, the policy of these FSCs can be considered justified.*

FSCs need to implement promotional campaigns to motivate the stakeholders. Stakeholders cooperating with FSCs for a long time and making large-scale purchases, believe that FSCs should offer various motivation packages to them, for example: sales depending on the season and the purchase volume. In this regard the FSCs remind the stakeholders that many of them buy products and services from FSCs on delay payment condition and present this as a favor to them. However, it is worth noting that hire-purchase system is a widely spread phenomenon and the competitors of FSCs also apply this system. So, FSCs can't be considered unique in this regard.

It is a fact that no marketing campaigns to motivate the stakeholders are implemented in FSCs. At this point CARD Agroservice has a lot to do. For instance, it should calculate which option is more profitable for the company: to develop and introduce sale system in FSCs in order to boost the sale of its products or to leave the products (which are the same as equivalent financial means) at stakeholders for an unknown period of time, as the products have been sold with hire-purchase system (RA Ministry of Agriculture, WB, AM Partners Consulting Company, 2016).

### **Recommendations for the FSCs Expansion Activities**

To improve the operation, increase the services and sales the Road Map was developed based on the needs assessment at farm and FSC management level. Several arguments were discussed and summarized in the following activities:

- Increase the level of FSC services accesability;
- Increase the number of FSCs and expand their geographic coverage;
- Increase the FSC management efficiency;
- Modify the scope of the FSC operation, with the transformation from specialized activities to universal ones;
- Improve the business management and financial knowledge level among the FSC managers;
- Increase the working capital level in business;
- Enlarge the assortment of goods sold at FSCs, including also the low profit margin goods;
- Activate the FSC promotional activities;
- Improve the accounting and reporting functions;
- Improve the product assortment and prices monitoring activities;
- Implement a system for monitoring and performance evaluation.

### **Summary: Expectations and Perspectives**

The assessment of the FSCs turnover growth in case all the activities specified by the roadmap are implemented, is a rather difficult task, conditioned by multiple factors. To achieve great results it's necessary that all the parties, interested in and responsible for the roadmap implementation, execute the action plan within a short period of time and to the whole extent, without any stipulation. It's also important to realize that not all the FSCs will succeed in the roadmap activities implementation and they would be forced to give place to other partners. The mentioned factors will negatively impact the FSCs operation indicators, hindering their development for some time.

### **References**

CARD Foundation and AM Partners Consulting Company. 2017. "13 actions for FSC expansion".

RA Ministry of Agriculture Agricultural PIU, World Bank, CARMAC Project, AM Partners Consulting Company. 2016. "EVALUATION OF VETERINARY SERVICE CENTRES ESTABLISHED UNDER CARMAC PROJECT".