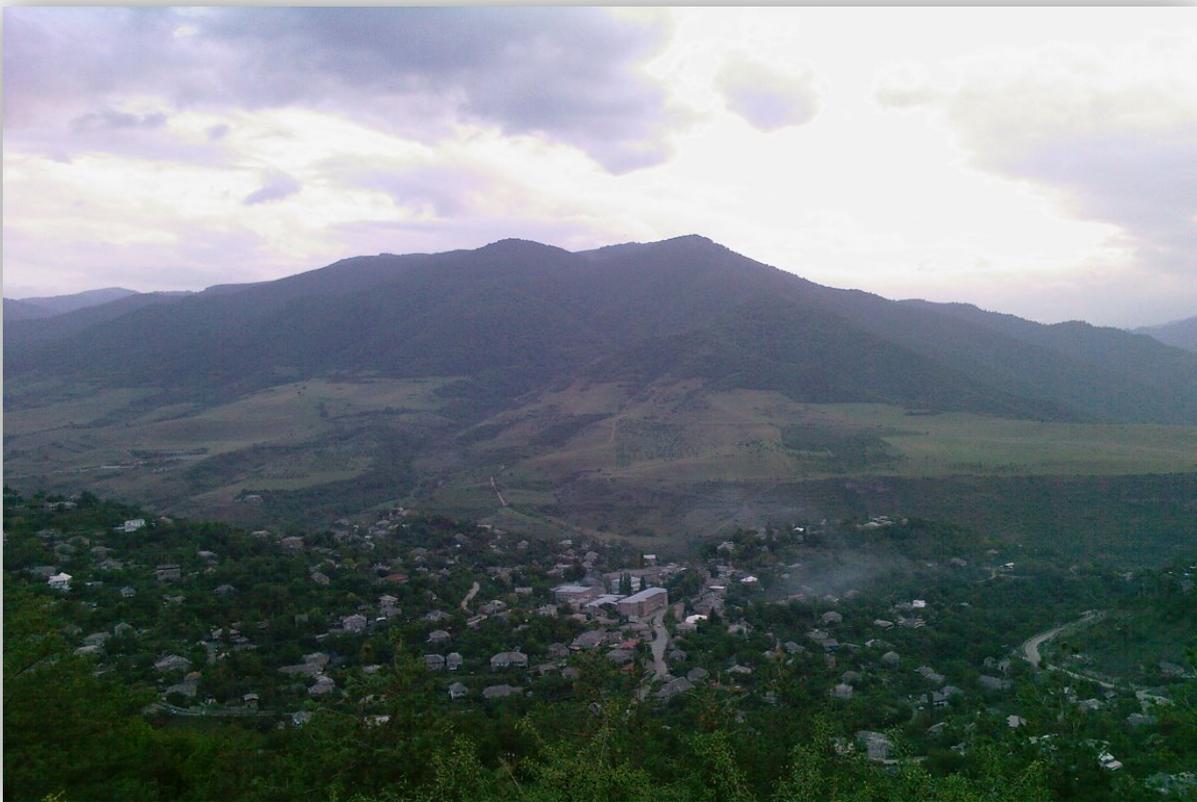




ADVANCED RURAL DEVELOPMENT INITIATIVE

COMMUNITY COMPETITIVENESS ASSESSMENT

SHNOGH



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INTRODUCTION

This report presents the results of the community competitiveness assessments conducted in the framework of the Advanced Rural Development Initiative (ARDI) program financed by the United States Agency for International Development. The ARDI project is implemented by Fuller Center For Housing Armenia (FCHA) in cooperation with Heifer International Armenian Branch Office (HA). The assessments are conducted using the methodology developed by HA. This is a part of series of assessments conducted in 20 rural communities.

ARDI sets out to increase rural employment by tackling constraints to rural economic development of communities in the Syunik, Vayots Dzor and Lori Marzes (provinces) of Armenia. The project forms partnerships with local governmental and non-governmental organizations (NGOs) to effectively and efficiently enhance value chains and increase incomes through participatory planning. ARDI builds the capacity of institutions and communities, promotes small businesses development and entrepreneurship and invests in select sustainable infrastructure and enterprise projects.

In the framework of the project 20 rural communities undergo community assessments which are aimed to identify the competitive advantages of target communities and high potential value chains in these areas. The evaluations are based on HA's Community Strategic Development Model (CSDM) Methodology and include strong community involvement. Based on the results of the community competitiveness assessments, 12 rural communities are eventually chosen for programmatic interventions and direct investment.

The community competitiveness assessments help us understand what resources a community has, how effective the community is in capitalizing its resources and evaluate the untapped potential of community to leverage its resources. Assessments also involve inventorying of all community assets including physical infrastructure and evaluations of the community environment for economic development, which we refer to as "enabling environment". As a result of the assessments a thorough image is created of the resources and capacities of a specific community.

The community competitiveness assessments and subsequent selection of communities in the framework of the ARDI program will be followed by more in-depth value chain assessments. These assessments will focus on the three main value chains targeted by the ARDI program namely dairy, fruit and rural tourism, and will identify the specifics and the potential of each value chain to create employment opportunities and community economic growth in targeted community clusters.



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1. METHODOLOGY

Traditional community development approaches have predominantly focused on community deficiencies and less on community strengths which often has contributed to lower impact and effectiveness of these initiatives.¹ Such an approach often also leads to narrow targeting of very specific community problems while missing more systematic solutions that may have resulted in more sustainable and effective outcomes.

With this in mind, Heifer Armenia developed the Community Strategic Development Model (CSDM) which is a unique approach to community development, combining the strengths of asset-based community development approaches with more traditional problem identification methods. Such a holistic approach allows identification of solutions that address existent issues effectively through factoring in the specific strengths of a community. Being fully participatory, HA's methodology allows:

- Effective collection of information on community resources and needs
- Identification and addressing/utilization of actual community problems and strengths, while avoiding the “perceived” vs. “real” problem trap
- Bottom-up community-driven development process along effective top-down planning approach and institutional and community capacity building

HA's model involves four distinct steps, which are logical and organic continuation of each other. These steps facilitate the process of taking the communities from strength and problem identification, assessment of economic development enabling environment, strategizing community development patterns, professional assessment of those patterns in terms of economic feasibility and environmental impact, to development of specific projects and implementation.

The first step of the CSDM model involves Community Competitiveness Assessments (CCAs) which form the primary focus of this report. For the CCA's a series of thorough workshops are conducted which are led by external facilitators and include representative focus groups from the community. The focus groups are formed from 10 to 12 people from the community, who represent different interest groups including local governance bodies, schools, business sector, farmers etc. This enables capturing a broad information base with different perspectives. The four steps of the model are as follows:

- Assessment of Capacity/Resources and Enabling Environment
- Assessment and mapping of community Strategic Direction/Development pattern
- Development and Initiation of specific projects
- Management and evaluation

As a result, CCAs involve discussion, analysis and inventory of community capacities and resources, such as human, physical, capital, natural, financial resources, explores Health, Education, Knowledge, Skill, Ability (KSA) capacities of the community, as well as main (previous and current)

¹ McKnight, John L. and John P. Kretzmann. 1993. Building Communities from the Inside Out: A Path Toward Finding and Mobilizing a Community's Assets. ACTA Publications: Chicago.

production patterns, employment situation, infrastructure conditions and major projects implemented in the community by Governmental and Public organizations.

Once the status quo of community resources and capacities is identified the focus group evaluates utilization level of these resources as low, medium or high. This step identifies how efficient the community is in capitalizing community resources and identifies the potential of the community to leverage and capitalize further on these resources.

Assessments also focus on the enabling environment for economic development in the community. This is a crucial point in community competitiveness assessment process, as the environment (government and policy and ability of the community to reach other) is an overarching issue which directly influences all aspects of community development. Assessment of the environment is done through scoring with scores from one to five, “one” being the lowest and “five” the highest possible score. The scoring is done on selected features which can describe the level of environment supportiveness for community economic development. The features focus on variables, such as local government interest in strategies for community economic development, existing policies and their implementation, interactions between local government and business, existence and supportiveness of specialized economic and business support structures and also the (geographic) position of the community to play a positive role in the region. Communities that score high on these features are considered having enabling environment and having increased competitiveness and low risk for economic development initiatives.

As a result of the assessments a thorough image is created of the resources and capacities of a specific community. Communities that score high on the evaluated areas are considered competitive and communities which score high on enabling environment and score low in resource utilization are considered for economic development interventions and projects. This cross-referencing and cross-assessment allows better targeting of communities where ARDI interventions can have higher impact. This report presents the findings of community competitiveness assessment on Shnogh community.

2. COMMUNITY PROFILE

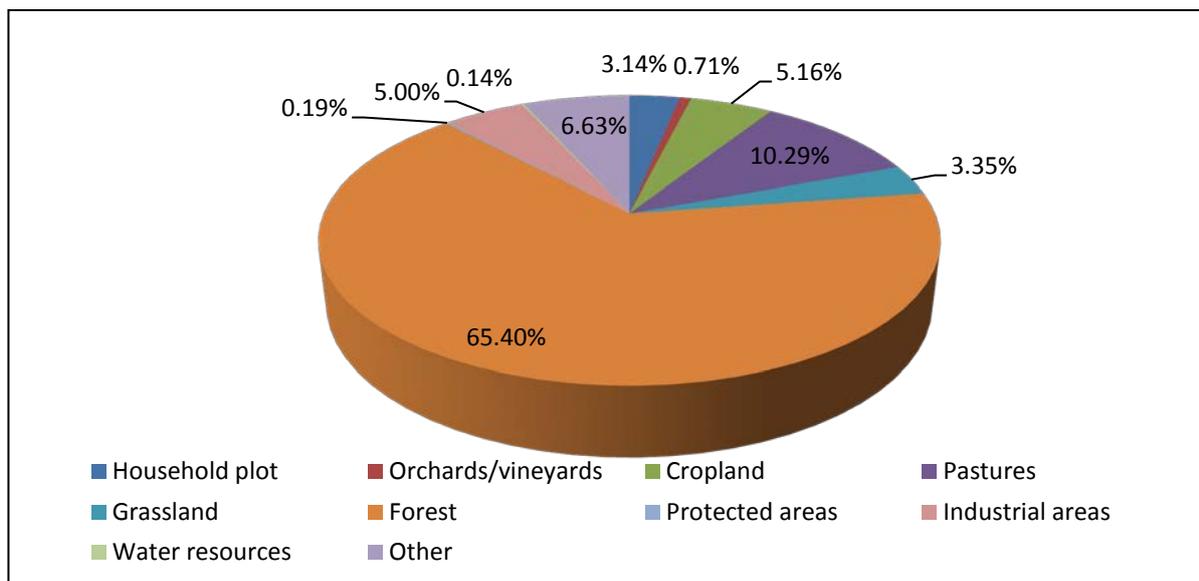
Shnogh is located in Lori region on a distance of 60 km from the Marz Capital. The former name of the village was Kaitson and the village was renamed in 11th century and received its name for fruitful and rich soil – Shen Hogh, or Shnogh. The community is located on an altitude of 640 m above sea level, has a relatively mild climate with +38 maximum and -22 minimum temperatures. The village nestles on the right bank of Debed river and has a rich nature. The neighboring communities are Teghut (5km), Artchis (4km), Akhtala (7km), Shnogh (10 km), Neghots (7 km) and Tchotchkan (7 km).

Traditionally the main agriculture sectors in which the population was engaged for centuries are: horticulture farming, livestock breeding, poultry and even sericulture. Currently the population is mainly engaged with horticulture (fruit and vegetables) and some livestock breeding. The rich and wild nature creates good conditions for beekeeping as well, and currently there are some 1000 beehives in the community producing 15 tons of high quality honey every year.

2.1. Community Territory

The total surface area of Shnogh covers an area 9438 ha of land which includes various land classifications. The official classifications of the community land as registered in the community register are presented in the following chart.

Figure 1 Community land Classification



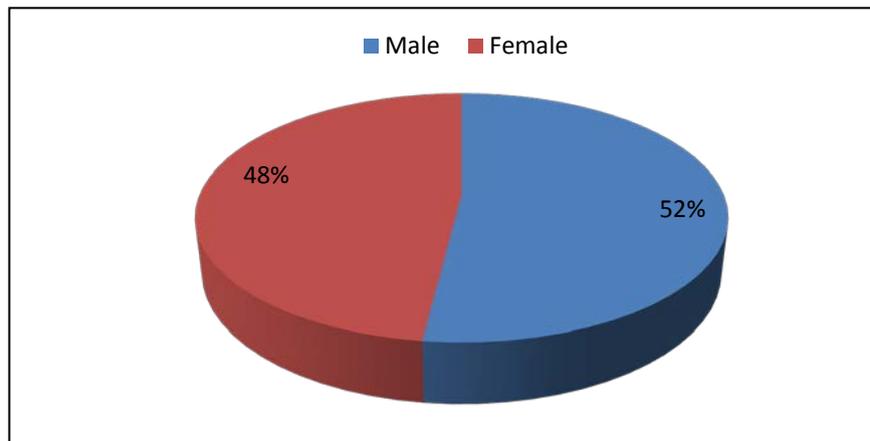
Source: Shnogh Community Land Register

Similar to other neighboring communities in the Lori region a major share of Shnogh's territory involves forests which make up about 65 percent of the total community territory. The remaining large land classification involves pastures and croplands together. The community also has large industrial areas, which were serving mining companies during the Soviet era. These areas cover about 5 percent of the land. The forest is rich with rare medical herbs and berries and serves as a very good opportunity to develop beehives in larger quantities.

2.2. Demographic Profile

Currently Shnogh houses 897 families and has a de facto population of 3261 people, of which 1694 are male and 1567 are female.² Compared to de facto population of the community in 2001 which according to the census was 2893 people, the population of Shnogh grew during the last decade despite the economic conditions and the overall migration.

Figure 2 Gender Classification of the community



Source: CCA Workshop Data - Heifer Armenia Calculations

About 73% (2413ppl) of Shnogh's population are of working age (16-65). And about 22 percent or 717 people of the total population are young individuals aged between 15 and 29. This is a similar percentage compared to the Lori marz level statistics. Table 1 presents the age segmentation of young population groups at community and Marz level in more detail.

Table 1 De facto Population by Age (number and % of total population)

	15-19	20-24	25-29
Shnogh	226 - 7%	232 - 7%	259 - 8%
Lori Marz	9916 - 9%	7297 - 7%	6040 - 6%

Source: CCA Workshop Data - Heifer Armenia Calculations and NSS data ³

The average share of the selected age groups of the total community population is again similar to Lori marz level average. Shnogh therefore does not have an above average percentage of young individuals in the community which could allow planning and implementation of youth specific (long term and sustainable) interventions by the ARDI program.

² Heifer Armenia database of official statistics provided by community centers.

³ National Statistical Service of RA (2003), Results of 2001 Population Census OF RA (Figures of Marz Lori), available at: www.armstat.am

2.3.Economic Profile

Results of community assessments point that horticulture is the main economic activity in Shnogh. Community members are active in livestock breeding as well, but the produced milk and the dairy products are mainly consumed by the households. Community members may have small irregular employment/income from other sources/sectors which are not covered in these calculations. The following figure presents the share of these sectors in the total income generated by community members.

As presented in Table 2, the total average output of the Shnogh dairy sector is 1000 tons of milk per year in average, which makes about 306 liters of milk per capita. In comparison with other communities in Lori Marz, Shnogh produces relatively low volumes of milk – in average 5.6 liters of milk per animal per day. About 50 percent of produced milk is being sold as milk or other dairy products on a very irregular basis and the rest is consumed by the household members.

Table 2 Main Agricultural Outputs of Shnogh

Economic Sectors	Annual Agricultural output	Percentage Sold	Monetary Output (mln AMD)*
Livestock breeding	Milk 1000 t –	50%	100
Beekeeping	15 t	90%	40.5
Fruit	920 t (peaches 350, grapes 120, persimmon 250, figs 150, cornelian cherry 50)	90%	191.8
Vegetables	298 t (Potatoes 204, beans 4, tomatoes 30, cabbages 60)	15%	4.47

* The output calculations are based on average (retail) sells prices of specific products and reflect retail prices (actual milk and meat prices received by farmers are likely to be lower than official average retail prices.

AMD prices per kg/l: milk 200, honey 3,000, persimmon 200, fig 300, cornelian cherry 400, grapes 130, potatoes 100, beans 200, tomatoes 150, cabbages 100

Source: CCA Workshop Data - Heifer Armenia Calculations

The mild climate and rich soil create perfect conditions for fruit production. Currently the community produces on average 920t of fruit out of which about 90 percent is sold. Next to apples, peaches and pears, Shnogh also produces valuable sorts of grapes, persimmons and figs. This generates monetary output of around AMD 192 mln annually and indicates a big potential in the community to further develop fruit value chain. The fruit value chain in more details is described in the following chapters.

The community also has about 1,000 beehives in total and produces annually 15 t of linden honey. Honey is sold relatively easy as about 90 percent of the output reaches customers, generating AMD 40.5 mln.

Vegetables produced in the community are mainly used for household nutrition. The average 15 percent of the total vegetable output that is sold on the nearby community markets generates about AMD 4,5 mln in monetary output.

To identify possible alternative economic development direction, focus group members were also requested to highlight possible alternative economic sectors for their community. This includes sectors or fields of occupation which currently are not tapped into adequately. These sectors provide further opportunities for the community to capitalize existing resources, boost entrepreneurship and eventually generate higher community output. Rural tourism was identified as high potential alternative sector by community members:

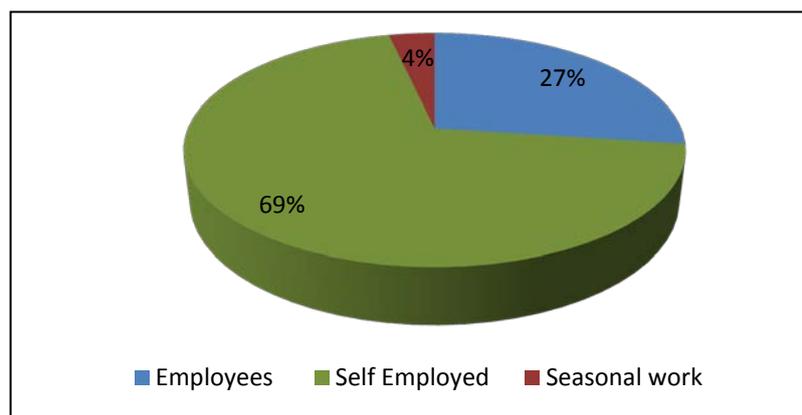
The impressive nature which surrounds the community and a good number of cultural and historical monuments can serve as attractive attraction to many visitors to the community and its surroundings. Yet possibilities of this sector are again not utilized as there are no places for the visitors to stay and no additional hospitality services are offered such as restaurants spas etc. A more detailed elaboration on (potential) tourism sector in Shnogh is provided in chapter 3.

2.4. Labor Force and Employment

Currently Shnogh has a working age population of 2413 people (de facto population between 16 and pension age 64). 655 individuals or about 27 percent of this group have permanent employment; this excludes the number of people who are self-employed and mainly involves civil servants and those who receive regular salary from private institutions/organizations, including teachers and staff of the local school.

The number of employees is relatively high in Shnogh compared to other communities of this region mainly because of the Teghut mine, as around 400 community members are working on the construction of these mine. The occupation of the working age population in terms of regular employment, self-employment and or seasonal work is illustrated in the following figure.

Figure 3 Occupation of Working Age population

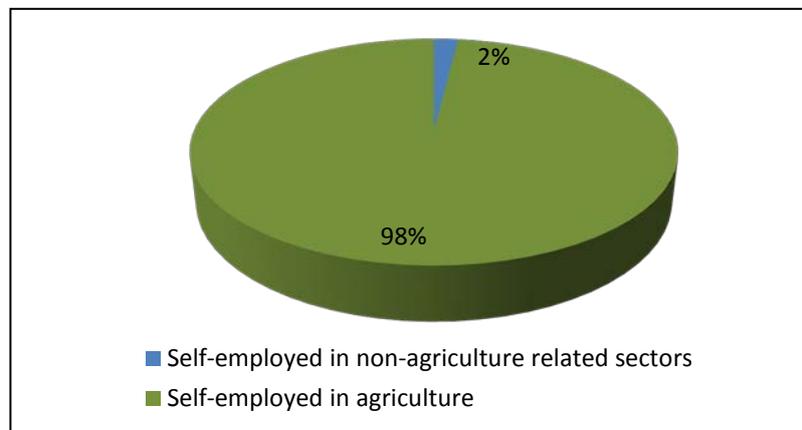


Source: CCA Workshop Data - Heifer Armenia Calculations

As illustrated above, about 4 percent of the working age population is engaged in seasonal work which involves seasonal work in Armenia and outside. The community is mainly reliant on self-employment and entrepreneurship. About 1673 individuals or 69 percent of working age population

in Shnogh are self-employed. Of this group just 2 percent are occupied in non-agriculture related and 98 percent are self-employed in agriculture related fields of occupation (See Figure 5).

Figure 4 Direction of Self Employment



Source: CCA Workshop Data - Heifer Armenia Calculations

The vast majority of the community population is therefore self-employed in the agricultural sector. Self-employment however does not necessary mean regular income; this is made even more obvious by the results of community consultations. The later reveal that only 15 percent of the self-employed in agriculture have sufficient access to buyers in terms of regular sells with appropriate volumes and so the remaining majority is often mainly involved in subsistence farming.

In terms of Education, around 30 percent of the population of Shnogh or 987 people have completed secondary education, and 39 percent or 1273 people have completed secondary professional (college) and/or university education. This indicates a very high level of professional and higher education in this community.

Figure 5 Community Education level

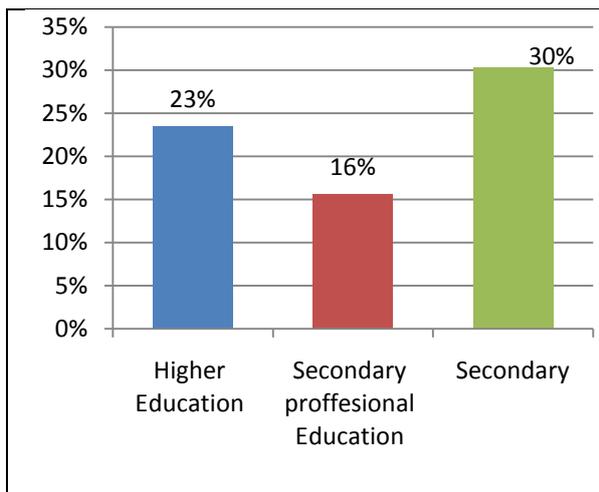
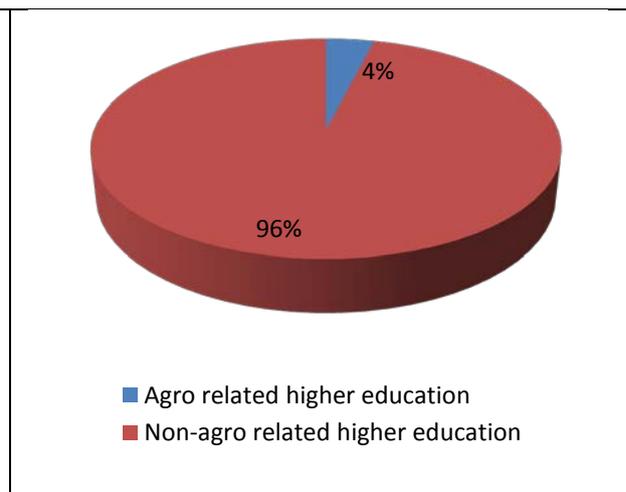


Figure 6 Field of Higher (Professional) Education



Source: CCA Workshop Data - Heifer Armenia Calculations

As it is illustrated above Shnogh has considerable human resources. But it is also notable that only 4 percent of all individuals with higher and secondary professional education have specialized on agriculture related disciplines. The remaining 96 percent is educated in non-agriculture related

fields, such as engineering, fine arts, languages, finance etc. The latter is particularly important for setting up/development of businesses and/or rural cooperatives where adequate financial management is crucial. Nobody in community has tourism related education.

Table 3 Experts In non-agricultural and agriculture related fields.

Non-agricultural related	Number of Experts	Agricultural fields	Number of Experts
Finance	25	(Milk) technicians	16
Engineering	35	Engineering	12
Management	14	Management	14
Tourism	-	Veterinarian	10

Source: CCA Workshop Data - Heifer Armenia Calculations

With regard to agriculture related education and expertise, there are 16 milk technicians, 12 engineers and 14 individuals with an agro management related expertise. The community has also 10 veterinarians who could serve respective community needs. Existence of adequate number of vets in the community is significantly important for the development of a healthy cattle and animal husbandry. Shnogh therefore has considerable human resources in both agriculture and non-agriculture related fields and a large number of community members with higher and professional education.

It also very important to mention here that there is a big number of community members with an experience in fruit processing, as around 400 people have been employed by the Akhtala fruit preserving plant previously. This people are ready and are willing to contribute their experience and skills to the development of the community.

2.5.Environmental Situation

This sub section of the assessment is mainly aimed at evaluating the exposure of the community to various kinds of environmental threats. Community members were given the opportunity to highlight the main threats that currently threaten the natural environment of the community and evaluate the level of these threats on Shnogh’s development. Focus group members highlighted the following issues as the main factors threatening the natural environment:

- Teghut copper and molybdenum open-pit mine
- Deforestation
- Soil erosion

As the main issue threatening the natural environment of the community, focus group members mentioned nearby Teghut mine. Although the mine is not yet being exploited and the potential harm

to the environment is not completely clear, the relative proximity of Shnogh community and its lands to Teghut concerns community members.

The second issue mentioned by the focus group members is deforestation: as it was already mentioned Shnogh has a vast forest area which is considered a large resource for the community. However, Teghut mine required large sahre of forest to be cut.

Moreover, similar to the other communities in the region, due to the low buying power of community members and the relative affordability of wood compared to natural gas and electricity as energy source for heating, (danger of) deforestation in Shnogh is continuously increasing. Also the soil structure in some of the areas of community land is eroded. This also dangers the forests as well as does not provide for horticulture in those areas.

3. COMMUNITY RESOURCES

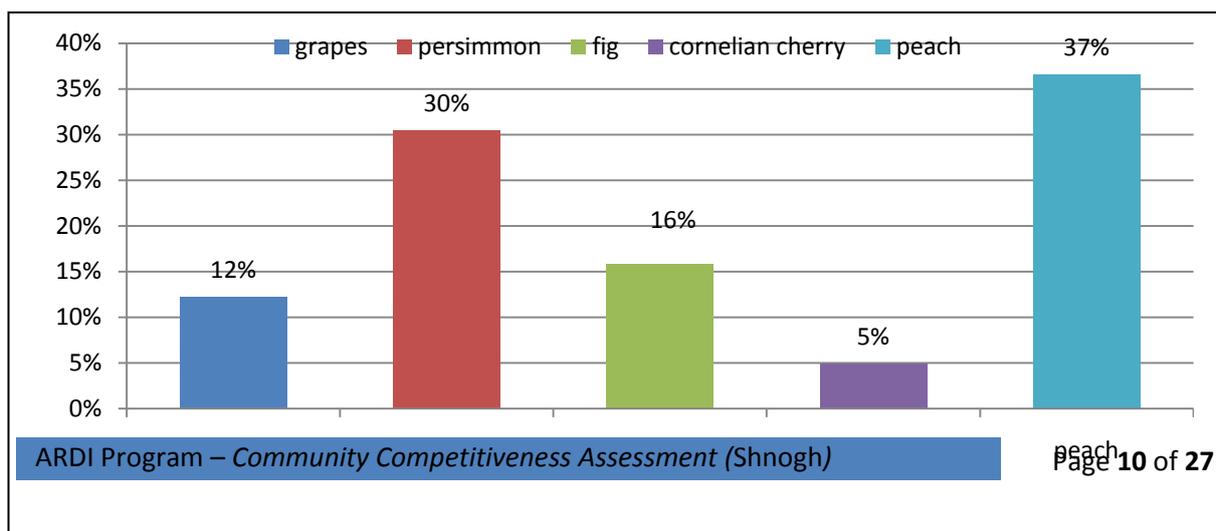
This section of the community assessments focuses on the resources and capacities of target communities in the three main target sectors/value chains of the ARDI program. This involves the Dairy, Fruit and Rural Tourism value chains. The results presented in this sub-section will allow us to narrow down the focus of community assessments and evaluate the potential of a community to or community cluster to receive ARDI specific investments.

Community resource assessments also involve evaluation of community infrastructural resources. This will include inventory of community infrastructure in terms of existence and condition of community infrastructure including but not limited to drinking and irrigation water systems, community and intra community roads, educational cultural and community governance buildings, community centers, IT and communication infrastructure, leisure and sport facilities, agricultural resources and technologies such as anti-hail systems and other infrastructure. An overview of the existent infrastructural assets of the Shnogh community is provided in ANNEX 2 of this report.

3.1.Fruits Sector Capacity

Fruit production volumes in Shnogh are relatively high. As it was already mentioned the community has a very rich soil and favorable location above the sea level, which contribute into possibility of growing fruit of higher value such as persimmons, quinces, table sorts of grapes, figs and peaches, apart from the traditional apples and pears. Below figure illustrates average volumes and shares of the fruits produced.

Figure 7 Types of Fruit Produced



Source: CCA Workshop Data - Heifer Armenia Calculations

The fruit that is produced by the farmers is mainly sold in the nearby markets to individual buyers. Considerable volume of grapes is sold to wine and brandy producing factories. The fruit is also used for production of homemade liquors and is sun dried. However, as the community does not have fruit cooling and storage equipment, farmers have to sell their crop during the peak seasons on the lowest wholesale price.

Whereas being able to store for example grapes and persimmons for a couple of months could enable them to sell the fruit at higher price and make much better profit than they do today. The farmers recognize community's exceptionally favorable conditions for further developing the fruit production sector and growing their orchards. But they also note that with the current income level they are unable to invest into fruit nurseries, orchards or equipment. From the experience point of view, Shnogh has a solid base of professionals ready to invest their time and knowledge though lack the appropriate funds and resources.

The capacity of the community to use any existent potential of the fruit value chain is limited due to the lack of value chain specific infrastructure. Currently there are no fruit collection centers and industrial refrigerators, drying equipment or any other infrastructure specific to fruit value chain.

3.2. Dairy sector capacity

As it was mentioned before in this report livestock production is not the main economy sector in Shnogh. Only 10% of raw milk is sold individual buyers within the community, generating some AMD20 mln a year.

The small volumes and engagement of the community members in dairy sector are conditioned by small pastures and grasslands owned by the community and thus insufficient fodder base for further livestock quantity development.

Besides, the community does not have any sector related infrastructure; there are currently no milk collection/cooling units. This is another reason why the community has not concerned up to now to develop in this economy sector. Only small quantities are sold to individual buyers, and the rest of the milk is processed into cheese and butter and consumed by the community households.

To conclude the community might have some potential to develop their dairy production and get engaged into respective value chain, however the resources of the community, such as pastures and grasslands availability, and the overall interest of the community members to be engaged in the dairy farming and milk processing is making the dairy sector in this community less promising and decreases its potential.

3.3. Tourism Sector Capacity

Shnogh currently on average attracts about 120 foreign and some 180 local Armenian tourists every year. Similar to many other communities in the region which are located by a river, these are mainly day tourists who do not spend the night in the community. However there are some diaspora Armenian families who visit Shnogh regularly every year. These are either relatives or friends who have emotional or other relationship with the village. Tourists mainly hear about Shnogh from word of mouth as there are no professional tour agencies which promote the community and organize tours to Shnogh and its surroundings.

Currently there are no B&Bs or any other formal accommodation services offered in Shnogh. The nearest hotel is located in Haghpat, which is 17 far from the community. This hotel can house about 50 guests at a time.

However the community members believe that there is potential for some B&B facilities in Shnogh and are confident that the availability of such kind of facilities will attract more foreign tourists. This confidence is based on the fact there are some diaspora Armenian families who regularly visit the community and have even contributed some funds to some repair works in some of the public buildings. Shnogh's vast natural resources and historical and architectural monuments that attract visitors are the following. The main historical monuments in relative proximity to the community are:

- St.Sargis church
- St.Gevorg Church
- Kaitson fortress
- Akhtala monastery
- Big number of cross-stones (khachkars) in the forests
- Famous Haghpat monastery is also situated relatively close – on some 17 km distance from the village
- Odzun, Sanahin monasteries are situated relatively close to Shnogh

The natural attractions in nearby Shnogh are:

- The forest which is a rich wildlife habitat with rare and diverse range of animals including bears
- Mountains and other attractive places for hiking tourists
- Abundance of medical herbs

Next to natural and historical attractions, the community can also offer a range of local culinary specialties such as Linden honey. As festivities celebrated in the community along with holidays that have special meaning for community members and could attract tourists, the community members mentioned:

- Village day – last Sunday of October
- Day of Honey and Barbeque celebrations – September 7
- Harvest day

Community members have some informal experience related to B&B services provision on a very irregular basis but currently there are no formal hospitality service providers in the community such as restaurants, hot water spas etc.. There are also no established links with external tourism related markets and agencies which promote and link it with tourists. As the main issues hampering tourism development in the community focus group member indicated:

- Lack of information dissemination or lack of awareness of potential tourists about the places with touristic value
- Lack of essential infrastructure such as minimum required living conditions such as renovated bedroom and toilets etc.
- lack of training and sector related knowledge of community members on the tourism sector

Yet, despite the mentioned issues, community members believe that Shnogh does have a large potential for development of tourism in the community and this can serve as an alternative economic sector and income source for community members.

3.4. Score of Community Resources

This sub section presents the quantitative summary of Shnogh’s resource assessment as evaluated in the framework of the ARDI Program. The evaluations are mainly based on primary data collection through community consultations. The following table presents the scores of Shnogh community regarding various general and value chain specific resources.

The maximum possible score on community resources is 200. The scoring is done based on mathematical assessments and ratios and expert evaluations. The scores are on a scale of 1 to 5, where 1 is low and 5 is maximum high. The weights add up to a total of 10 in each category where 1 is low and 10 is high. The exact appraisal approach and relevant description is provided in ANNEX 1.

Table 4 Shnogh Community Resources (on a scale of 1-5)

Indicator	Score	Weight	Weighted Score
General Community Capacity			
Community Educational level	5	3	15
Community vitality	4	3	12
Community infrastructure (existence and condition of roads, water, energy sewage etc.)	2	2	4
Community Natural resources	4	2	8
Total Score General Community capacity			39
Dairy sector capacity			
Milk Production (Milk production/per capita	1	4	4
Milk Productivity (Milk production/animal head ratio etc.)	3	2	6
Fodder Availability (Animal/pasture)	1	3	3
Dairy sector related experience and infrastructure	2	1	2
Total Score Dairy Sector Capacity			15
Fruits sector capacity			
Ability to produce quality fruit	2	4	8
Fruit quality	5	3	15
Existence of Fruit infrastructure (hail centers etc.)	1	2	2
Fruit sector related experience and knowledge	4	1	4

Total Score Fruit Sector Capacity				29
Tourism Sector Capacity				
Tourism related resources as natural, cultural etc.	4	3		12
Current tourist visits to the community	3	2		6
Existence of tourism infrastructure (B&Bs, restaurants, spas etc.)	2	3		6
Existence of tourism related experience and knowledge	2	2		4
Total Score Tourism Sector Capacity				28
Total Score Community Resources				<u>111</u>

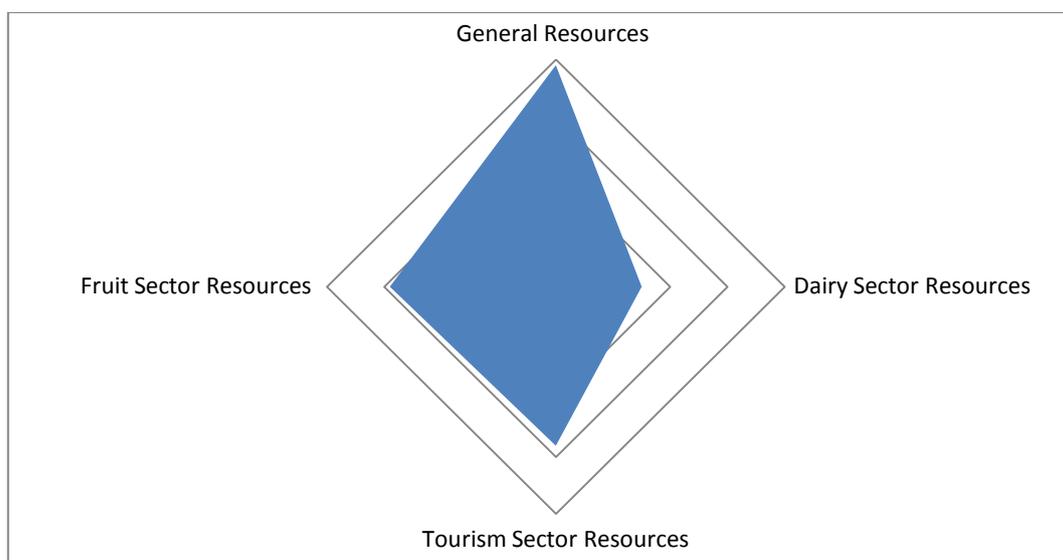
Source: CCA Workshop Data - Heifer Armenia Calculations

The highest scores of Shnogh regarding Community Resources relate to general community resources with the score of 39. With a score of 29 the second highest score was of the fruit sector. Shnogh has a high score on current quality fruit production volumes and scores low on fruit value chain related infrastructure available in the community.

The third highest score of the community related to the tourism sector. This is due to the richness of the region with historical and architectural monuments and availability of natural resources. But the hospitality sector is still vastly underdeveloped and there are no such resources as knowledge and/or experience related to the field.

In relation to Dairy sector Shnogh scores relatively low both regarding per capita raw milk production and fodder and resource availability for this specific value chain. The total weighted score of Shnogh on community resources is 111. The following figure presents a visual illustration of the community resources in the four indicated areas.

Figure 3 Shnogh Resource Map



4. RESOURCE UTILIZATION

As a main part of HA's community assessment model, this subsection of the assessment focuses on evaluating the utilization level of community resources. Evaluating utilization levels will allow us to better understand the need of the community for programmatic interventions in the evaluated areas.

The following table presents the resource utilization scores of Shnogh community regarding various general and value chain specific resources. The scoring is again done based on mathematical assessments and ratios and expert evaluations. The utilization scores involve a scale of 1 to 5, where 1 is low and 5 is the maximum high. Consequently, low weighted scores on resource utilization indicate that resources of the community in a specific field are under-utilized. The included weights add up to a total of 10 in each category, where 1 is again low and 10 is high.

Table 5 Shnogh Community Resources Utilization (on a scale of 1-5)

Indicator	Score	Weight	Weighted Score
Dairy sector capacity			
Utilization of fodder base (Animal/pasture on a scale of 1-5)	4	3	12
Milk collection level (production/collection)	1	4	4
Community milk Productivity	2	1	2
Overall dairy sector resource utilization*	2	2	4
Total Dairy Sector (Max 50)			22
Fruits sector capacity			
Utilization of quality production capacity	5	3	15
Current sells of quality fruit production	4	3	12
Professional Fruit processing	3	2	6
Overall fruit sector resource utilization	2	2	4
Total Fruit Sector Max 50			37

Tourism sector capacity			
Use of natural, cultural and other resources for community development)	3	4	12
Revenue generation through hospitality services (as B&Bs, restaurants, etc.)	2	3	6
Professional use of tourism related Knowledge and HR capacity	2	2	4
Overall Tourism sector resource utilization	3	1	3
Total Tourism Sector Max 50			25
Total Score Resource Utilization			<u>84</u>

Source: CCA Workshop Data - Heifer Armenia Calculations

* The general evaluations of each sector involve expert evaluation of various components of influence to sector capacity and its utilization. Regarding the dairy sector for example knowledge and experience of the community in this specific sector, willingness of the community to invest in the sector and other such factors were taken into account.

The total resource utilization score of Shnogh community was 84 out of 150. With a total weighted score of 22, dairy sector is the least under-utilized sector of the community evaluated in this framework. This may be explained with the natural and geographic conditions of the community, as most of the land owned by the community involves forests and orchards and there are not enough grasslands and pastures available in the community to serve as a sufficient fodder base for the animals in case the community members decide to further develop this sector.

With a score of 25, tourism sector is the second underutilized sector of Shnogh. Natural, cultural and other resources with touristic value are not being utilized for commercial purposes.

Resource utilization was the highest in the fruit sector with a score of 37. Fruit sector evaluations involve utilization of production capacities regarding high quality (marketable) fruit. As discussed in section 3.1, the capacities of Shnogh regarding high quality fruit production are high again due to natural climatic and geographical conditions and rich soil. Therefore so far the community mostly capitalized on production of valuable and high quality fruit. However there is huge potential to further develop fruit value chain, because the community hardly has any fruit value chain related infrastructure and poorly monetizes on processing the fruit they are producing.

5. ENABLING ENVIRONMENT

A very important factor for community development and consequently a focus point of the community competitiveness assessment is the environment. Enabling environment is an overarching factor that involves a set of broad issues which directly influence all aspects of community development. The factors assessed by our model involve five main indicators that assess the environment from different specific perspectives relevant to the ARDI program. These factors involve:

- Willingness of community members and local officials to commit and invest resources (time and money) in community development.
- Willingness of community members to cooperate with one another towards common gain and development.
- Coverage of the community by other development projects/initiatives.
- Linkage of community with existent (business) support structures, both public and private.
- Position of the community to serve surrounding communities

These factors are assessed by focus group members on a scale of one to five where one is the worst score and “five” the best. The total maximum score on enabling environment is 100. Communities that score high on these features are considered having enabling environment on the features that are of crucial importance for the ARDI program. Moreover these factors all have certain weights which to some degree stress the importance of each specific factor to the program. The following table presents the scores of Shnogh in relation to the mentioned indicators and the total weighted score of the community regarding enabling environment.

Table 6 Shnogh’s Enabling Environment

Indicators	Score (1-5)	Weight	Weighted Score
Willingness of community members and officials to invest and activity participate in the program	3	6	18
Willingness of community members to cooperate towards common gain and development	5	4	20
Coverage of the community by other development projects/initiatives.	3	1	3
Linkage of community with existent (business) support structures	3	1	3
Position of the community to serve surrounding communities	4	8	32
Total Score Enabling Environment			<u>76</u>

Source: CCA Workshop Data - Heifer Armenia Calculations

The total score of Shnogh on enabling environment is 76. The highest score (32) in assessing enabling environment of Shnogh related to the position of the community to serve as a community cluster and thus to contribute to the development of nearby communities as well. One of the most important and high scores that community has is 18 which relates to the motivation of the community population to invest resources and actively participate in the program. This was also made obvious during community assessment sessions and focus group discussions as community members participated very actively in these meetings as focus group members and observers.

Shnogh scores very high, namely 20 regarding to the willingness of community members to cooperate towards common gain and development. The ability to work with each other is important in case cooperative approaches such as milk producer or fruit processing cooperatives are to be established in the community. The community has limited links to existent (business) support structures and there are currently very few other development programs being implemented in the community.

6. CONCLUSIONS

Shnogh is one of the communities located in Alaverdi region of Lori Marz of Armenia on the right bank of river Debed. The community houses 3261 residents of which the vast majority is mainly involved in animal husbandry and fruit production, followed by beekeeping and vegetable growing activities. Horticulture in Shnogh is providing the main income source to the households. Currently along with the fruit production the community also produces some vegetables, such as potatoes, tomatoes and cabbages. But these are mainly consumed by the community households and a minor portion is sold to nearby communities on a very irregular basis, and cannot be considered as a reliable income source.

The total competitiveness assessment score of Shnogh was 103. In general, the community scored relatively high on community resources and enabling environment and relatively low on the resource utilization. Regarding general community resources, the community among others scored high on community education level and community vitality which relates to the relatively large population of young individuals that can get involved and contribute to the development of the community.

In terms of sector or value chain specific resources Shnogh scored the highest on fruit sector capacity (29) which involved relatively good climate and geographical conditions as well as rich soil, suitable for high quality fruit production. Dairy and Tourism sectors scored relatively low with respective scores of 15 and 28. Thus tourism sector with availability of natural and historical attractions and mild climate is drastically underutilized. Dairy sector related capacities scored lowest due to high dependence on climate and geographical conditions as a small natural fodder base exists for the animals.

With regard to resource utilization; similar to the surrounding communities in the region, utilization of resources was the lowest in the tourism/hospitality sector as there are hardly any professional tourism services offered. The second most underutilized sector of the community was the dairy sector due to limited resources and no existing infrastructures. The lack of sector related infrastructure such as collection/consolidation points in the community and organized sales of raw milk are other factors hampering sector growth. Taking into account the resources of the community regarding tourism, this sector can also have potential for contribution to Shnogh's development.

Shnogh scored relatively high on enabling environment. Though the community has relatively limited links with existent business support structures and is not sufficiently covered by development organizations, the community is very well positioned to serve as a cluster center, as is located very close to the highway, which could connect surrounding communities with the regional centers such as Akhtala and Alaverdi. Most importantly the community is situated very close to Armenian Georgian boarder and can serve as a collection and consolidation center for farmers from nearby communities, taking their production to the Georgian markets. The position of the community to serve surrounding communities has a large importance to ARDI program as the potential impact of the investments made by the program in a community is very much dependent on the ability of the community to serve surrounding communities and contribute to the development of these communities as well.

7. ANNEX 1: APPRAISAL APPROACH

Community Resources	
Indicator	Appraisal Measures
General Community Capacity	
Community Educational level	Level of education and agricultural targeting of education as percentage of population with Secondary professional and Higher education on a scale of 1-5 where [0-5%=1] – [5-10%=2] – [10-20%=3] [20-40%=4] – [40%+=5]
Community vitality (number of people aged 15-29/community population)	Number of people aged 15-29/community population) on a scale of 1-5 where [0-5%=1] – [5-10%=2] – [10-20%=3] [20-40%=4] – [40%+=5]
Community infrastructure (existence and condition of roads, water, energy sewage etc.)	Existence and condition of infrastructure as water, energy sewage etc.) on a scale of 1-5 where [no-infrastructure=1] – [inadequate infrastructure=2] – [Usable quality infrastructure=3] – [good quality infrastructure=4] – [excellent infrastructure=5]
Community Natural resources (stone, diamond and other precious metal reserves etc.)	Accumulated score of various resources such as forests, stone, diamond and other precious metal reserves etc.) on a scale of 1-5 where [no resources =1] – [forest and water=1] – [Stone mines=1] – [Precious metals=1] – [fossil fuel reserves as coal=1]
Dairy sector capacity	
Milk Production	(Milk production/per capita) on scale of 1-5 where [0-0.2=1] – [0.21-0.4=2] – [0.41-0.6=3] [0.61-0.8=4] – [0.81+=5]
Milk Productivity	(Milk production/animal head ratio etc.) on scale of 1-5 where [0 - 1=1] – [1- 1.5 =2] – [1.5-2=3] [2.1—2.5=4] – [2.5+=5]
Fodder Availability	(Animal/pasture ratio on scale of 1-5 where [0 - 1=1] – [1- 2 =2] – [2-3=3] [3-4=4] – [4+=5]
Dairy sector related experience and infrastructure	Accumulated score of various resources as educate people and people with professional experience on scale of 1-5 [Milk technicians =1] – [Vets =1] – [Experience in the sector=1] [Consolidation units=1] – [processing plants=1]
Fruits sector capacity	
Ability to produce quality fruit	Quantity of quality fruit production in tons per capita on scale of 1-5 where [0 - 1=1] – [1- 1.5 =2] – [1.5-2=3] [2.1—2.5=4] – [2.5+=5]

Fruit quality	Share of high quality fruit of the total fruit production scale on a scale of 1-5 where [0-10%=1] – [10-20%=2] – [20-40%=3] [40-80%=4] – [80-100%=5]
Existence of Fruit infrastructure	Hail centers and consolidation units etc. on scale of 1-5 in terms of perceptual coverage [0-10%=1] – [10-20%=2] – [20-40%=3] [40-80%=4] – [80-100%=5]
Fruit sector related experience and knowledge (on scale of 1-5)	Existence of educated people and people with professional experience in this sector including landscape experts etc.
Tourism Sector Capacity	
Tourism related resources as natural, cultural etc.	Existence of attractive natural environments, culinary specialties, hospitality of the people etc. on scale of 1-5.
Current tourist visits to the community	Number of visitors visiting the community annually (international and locals) on scale of 1-5 where [0 - 10=1] – [10 - 100 =2] – [100-200=3] [200-400=4] – [400+=5]
Existence of tourism infrastructure (B&Bs, restaurants, spas etc.)	Existence of B&Bs, hotels, restaurants, spas etc. on scale of 1-5 where existence of all different services is one extra point so only B&B and or hotel =1 points, Restaurants = 1 points, Spas =1 points, leisure possibilities/night life =1 and if all of these points exists 5 points.
Existence of tourism related experience and knowledge	Previous formal and informal experience with tourism service delivery on a scale of 1-5 where only informal hospitality is 1, informal paid hospitality is 2, formal experience as registered business is 3, formal with established links to local tour operators is 4 and formal with established links with international tour operators is 5.

Resource Utilization	
Indictor	Appraisal Measures
Dairy Sector	
Utilization of fodder base	Ratio of number of animals divided by the existent pasture and grassland – minus 1.8 On a scale of 1-5 where [0 – 0.5=5] – [0.5- 1 =4] – [2-3=3] [3-4=2] – [4+=1]
Milk collection level (production/collection)	Raw milk production and regular collection ratio in percentage on a scale of 1-5 where [0-

	10%=1] – [10-20%=2] – [20-40%=3] [40-80%=4] – [80-100%=5]
Milk Productivity	Milk productivity compared to maximum productivity of Caucasian Grey (local breed of cows in Armenia which is 3.5. On a scale of 1-5 where [0 – 0.2=1] – [0.2- 0.5 =2] – [0.5-0.8=3] [0.8-1=4] – [1+=5]
Overall dairy sector resource utilization	Independents expert evaluation of various components of influence to sector capacity and its utilization.
Fruits Sector Capacity	
Utilization of quality production capacity	Percentage of quality production compared to actual production of fruits on a scale of 1-5 where [0-10%=1] – [10-20%=2] – [20-40%=3] [40-80%=4] – [80-100%=5]
Current sells of quality fruit production	Percentage of quality production sells compared to actual production of high quality fruits on a scale of 1-5 where [0-10%=1] – [10-20%=2] – [20-40%=3] - [40-80%=4] – [80-100%=5]
Professional Fruit processing	Professional (of farm) processing of fruit in the community as drying, juicing etc. where [0-10%=1] – [10-20%=2] – [20-40%=3] [40-80%=4] – [80-100%=5]
Overall fruit sector resource utilization	Independents expert evaluation of various components of influence to sector capacity and its utilization.
Tourism Sector Capacity	
Use of natural, cultural and other resources for community development	Regularity of tourist visits to the natural cultural and other resources of the community where very rare=1, rare 2, occasionally =3, often is 4 and very often is 5.
Revenue generation through hospitality services (as B&Bs, restaurants, etc)	Contribution of tourism to community income generation on a scale of 1-5 where [0-10%=1] – [10-20%=2] – [20-40%=3] - [40-80%=4] – [80-100%=5]
Professional use of tourism related Knowledge and HR capacity	Number of people working and utilizing their tourism related experience in this sector as percentage of total community population where [0-10%=1] – [10-20%=2] – [20-40%=3] - [40-80%=4] – [80-100%=5]
Overall Tourism sector resource utilization	Independents expert evaluation of various components of influence to sector capacity and its utilization.

8. ANNEX 2: INFRASTRUCTURAL INVENTORY (Armenian)



ARDI is a 5-year program funded by the US Agency for International Development. Launched in September 2013; the program aims to increase rural employment by tackling constraints to rural economic development of communities in the Syunik, Vayots Dzor and Lori Marzes (provinces) of Armenia. The program will support interventions in three main rural economic sectors/Value Chains involving Dairy Processing, Fruit Processing and Rural Tourism.