ADVANCED RURAL DEVELOPMENT INITIATIVE

COMMUNITY COMPETITIVENESS ASSESSMENT

ARENI

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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 often focused on community deficiencies and less on community strengths which often reduced the 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 produce more sustainable and effective outcomes.

With this in mind, Heifer Armenia (HA) 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) production patterns, employment situation, infrastructure conditions

[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.

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 Areni community

2. COMMUNITY PROFILE

Areni is located in Vayots Dzor region on the banks of river Arpa on the distance of 20 km from the marz capital Yeghegnadzor. The village was founded in 17th century and was

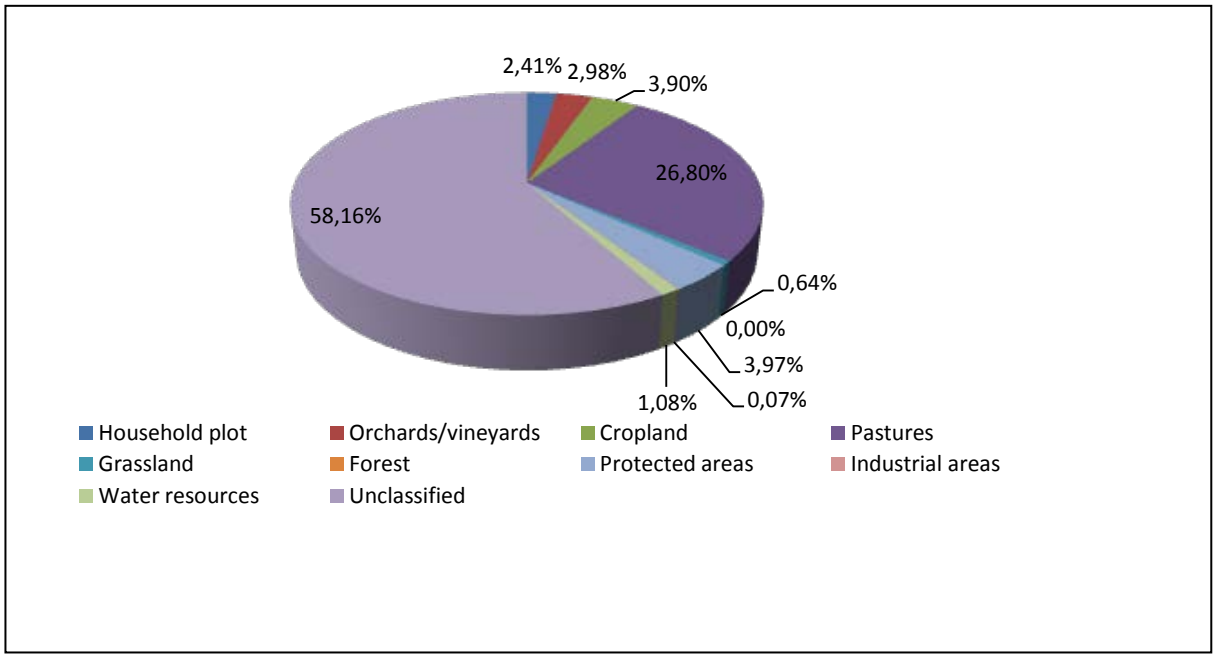
separated from the neighboring community Arpi in the middle of 20th century. The community is located on an altitude of 980 above sea level, has a continental climate with hot and very sunny summers and mildly cold winters. The neighboring communities are Chiva (5km), Rind (12 km), Khachik (23km) and Yelpin (11km).

The community is surrounded by a rich nature and has natural resources such stone mines. On the river there is a hydro power plant which generates energy for the region. The community is known for its exceptional quality grapes Areni, from which the famous Armenian Areni wine is produced. The rich natural environment is also famous for caves and mountains, inhabited by a variety of wild animals. Traditionally the main agriculture sectors of Areni for centuries have been vineyards cultivation and wine production.

2.1.Community Territory

The total surface area of Areni covers an area 4359 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



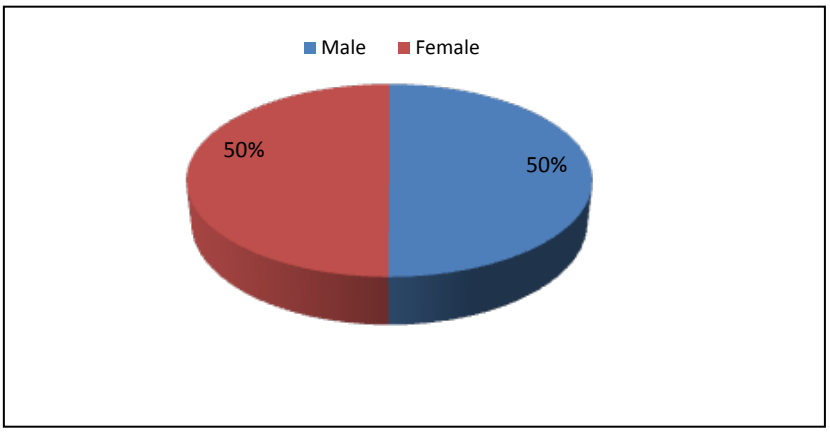
Source: Areni Community Land Register

As shown in Figure 1 the largest share of Areni's territory involves as pastures, which together with the grasslands make up about 18% of total community land. Next largest land classification falls under croplands and vineyards. However, more than half of community land is not classified. This is because of the fact that most of the land that belongs to the community involves deserted and rocky mountains, which are suitable neither for horticulture animal husbandry. This significantly decreases land size that is de facto used by the community members both for animal breeding and for orchards and vineyards.

2.2.Demographic Profile

Areni is a medium size community and houses 550 families. The community has a de facto population of 2067 people, of which 1035 are male and 1032 are female.[2] Compared to 1730 de facto population of the community in 2001, the population of Areni increased considerably during the last decade.

Figure 2 Gender Classification of the community



Source: CCA Workshop Data - Heifer Armenia Calculations

About 67% or 1400 people of Areni's population are of working age (16-65). Moreover, about 25 percent or 504 people are young individuals aged between 15-29 years old. This is considerably higher than the share of young individuals in this age group in rural areas of the Vayots-dzor marz as average marz level statistics reveal a 14 percent population share in this age group. 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
Areni	126- 6%	204 - 10%	178 - 9%
Vayots Dzor Marz	3359 - 6%	2343 - 4%	1849 - 3%

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 equal to or above Vayots Dzor marz level average. Areni therefore does 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

Areni has about 80 small scale farmers[4] who mainly are active in animal husbandry and horticulture. The latter mainly involves vineyards which always have been very traditional for Areni community. Results of community assessments point that horticulture, livestock breeding; trade and beekeeping are the main economic sectors of Areni. Community members may have small irregular employment/income from other sources/sectors which are not covered in this section.

As presented in Table 2, the total average output of the Areni dairy sector is 300 tons of milk per year in average. Having 200 heads of milking cows in total the average output of one animal is 5,9 per day. Around 50 percent of produced milk is being sold as raw or processed milk. The rest is consumed by the household members for their families' nutrition or serves as a fodder base for the calves. The milk sold generates approximately AMD 30 mln a year in sales. However the pastures that belong to the community do not provide enough fodder for developing animal husbandry. The community members have to purchase about 45 percent of the fodder necessary for the animals.

Community members are also engaged in some small scale trade, which includes selling of community specialties (fruit lavash, sweet sujukh, jams and kavourma) on the on-road market.

Table 2 Main Agricultural Outputs of Areni

Economic Sectors	Annual Agricultural output	Percentage Sold	Monetary Output (mln AMD)*
Livestock breeding	Milk 300 t –	50%	30
Beekeeping	15 t	90%	40.5
Grapes	700 t	100%	140
Fruit	300 t (peaches 200, apricot 50, apple and other fruit 50)	90%	42.7
Vegetables	135t (onion 50, tomato 45, pepper 20, eggplant 20)	70%	13.5

* 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, grapes 200, peaches 150, apricots 250, apples 100, onions 150, tomatoes 150, pepper 150, egg-plants 100.

Source: CCA Workshop Data - Heifer Armenia Calculations

Also the community has some 1500 beehives in total and produces annually 15 t of high quality honey. Honey is sold relatively easy and about 90 percent of the output reaches the customers securing AMD 40 mln annual income.

The community owns considerable orchards and vineyards. In addition to 700 t of grapes, the community currently produces about 300 tons of fruit including peaches, apricots, apples and pears. About 90% of the produced fruit reaches markets and generates a monetary output of around AMD 42.7 mln annually. The remaining fruit grown in the community is

[4] Farmers with up-to 0.5 ha of land and 4 cows.

mainly used for consumption (subsistence) and as fodder for animals. The fruit is sold to fruit processors as well on nearby markets as fresh or processed fruit (fruit lavash and jams). Some portion of the fruit is also processed into dried fruit using traditional technology. All the grapes produced in the community are bought by the wine producers. Vegetables (onions, tomatoes, eggplants and pepper) produced and sold by the community members are also generating some AMD 13.5 mln annually. The fruit value chain is explored in more detail in the following chapters.

To identify possible alternative economic development direction, focus group members were also requested to highlight possible economic sectors for further development in 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. The following sectors were identified as high potential alternative sectors by community members:

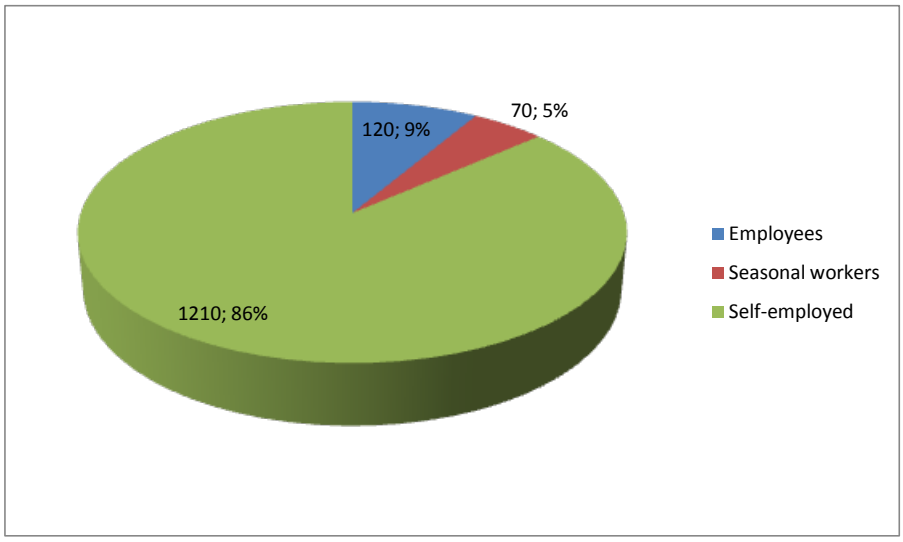
- Rural tourism
- Fruit processing
- Fruit cooling and storing

The impressive nature which surrounds the community and the various cultural and historical monuments can attract many visitors to the community and its surroundings. Yet possibilities of this sector are again not utilized. There are several informal Bed & Breakfast providers and a very few number of restaurants or other hospitality service providers. A more detailed elaboration on (potential) tourism sector in Areni is provided in chapter 3.

2.4. Labor Force and Employment

Currently Areni has a working age population of 1400 people (de facto population between 16 and pension age 64). 120 individuals or about 9 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, local mine and hydropower station employees and those working in the wine factories. Occupation of the working age population in terms of regular employment, self-employment and or seasonal work is illustrated in the following figure.

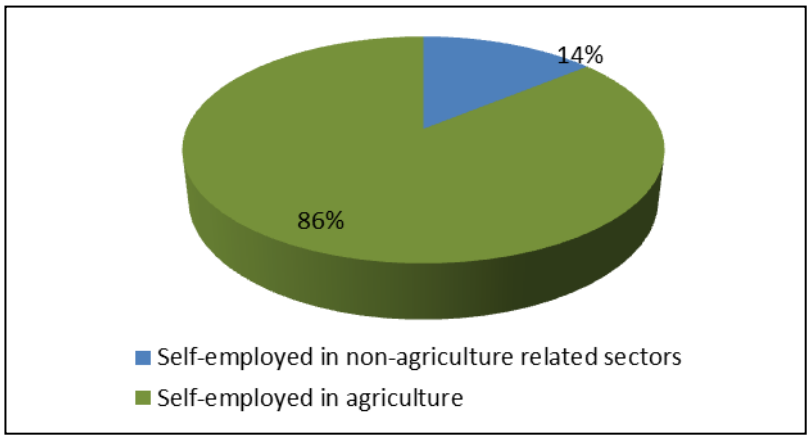
Figure 3 Occupation of Working Age population



Source: CCA Workshop Data - Heifer Armenia Calculations

As illustrated above, about 5 percent of the working age population is engaged in seasonal work which involves seasonal work in Armenia and foreign countries. The community is therefore mainly reliant on self-employment and entrepreneurship. About 86 percent of population is self-employed both in agriculture and non-agriculture sectors. Of this group 14 percent are occupied in non-agriculture related and 86 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 majority of the community population is self-employed in the agricultural sector. The results of community consultations reveal that about 45 percent of the self-employed in agriculture have sufficient access to buyers in terms of regular sales with appropriate volumes and so the remaining majority is often mainly involved in subsistence farming. The 14 percent that indicated to be self-employed in other areas mainly involves individual entrepreneurs engaged in trade of homemade local specialties that are sold on the road market.

In terms of education, more than 70 percent of working age population of Areni or 927 people have completed secondary education, and 28 percent or 371 people have completed secondary professional (college) and or university education.

Figure 5 Community Education level

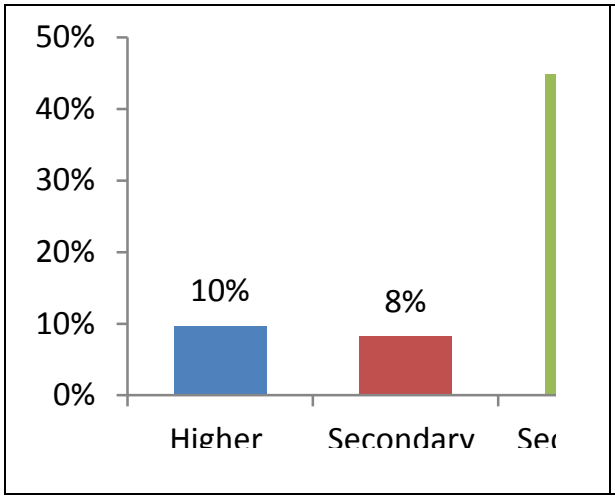
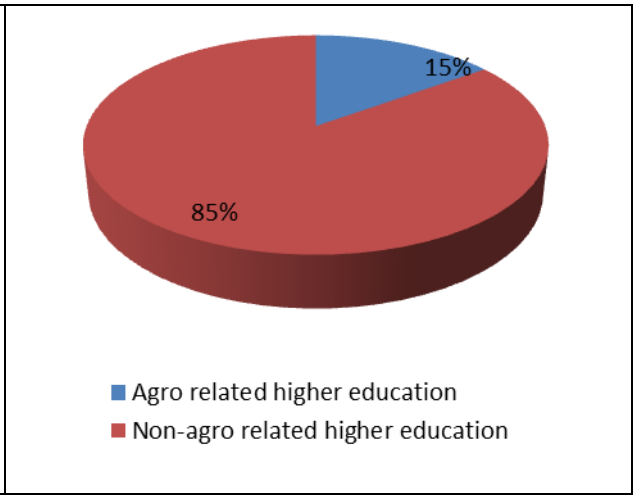


Figure 6 Field of Higher (Professional) Education



Source: CCA Workshop Data - Heifer Armenia Calculations

Areni has considerable human resources. Yet it is notable that only 15 percent of all individuals with higher and secondary professional education have specialized agriculture related education. The remaining 85 percent is educated in non-agriculture related fields, such as engineering, fine arts, medicine, 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 has tourism related education, though many are engaged in tourism related activities.

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

Non-agricultural related	Number of Experts	Agricultural fields	Number of Experts
Finance	50	(Milk) technicians	4
Engineering	82	Engineering	14
Management	15	Management	2
Tourism	0	Veterinarian	10

Source: CCA Workshop Data - Heifer Armenia Calculations

With regard to agriculture related education and expertise, there are 4 milk technicians, 14 engineers and 2 individuals with an agro management related expertise. The community has also 10 veterinarians and zoo technicians 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.

Therefore although Areni's resources seem to be poor in terms of human resources both in agriculture and non-agriculture related fields, as it was previously mentioned, the community traditionally was engaged in fruit and grape production and there is a vast experience base in the community in this regards.

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 Areni's development. Focus group members did not highlight any major environment issues in the community that are concerning them. There is a hydro power plant near to the community, which however does not influence river flow and thus does not concern the community members.

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.

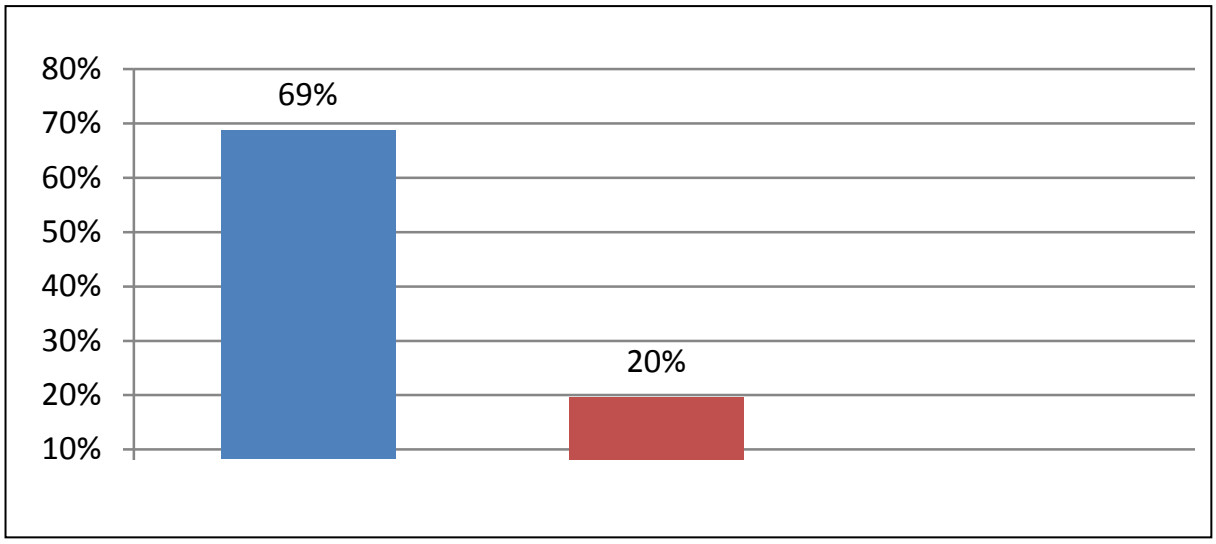
Community resource assessments also involve evaluation of community infrastructural resources. This will include inventory of community infrastructure in terms of existence and condition of community infrastructure including but not limited to drinking and irrigation water systems, community and intra 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 Areni community is provided in Annex 2 of this report.

3.1.Fruits Sector Capacity

Fruit production volumes in Areni are considerable. The climate and elevation create naturally favorable conditions for cultivating valuable sorts of fruit such as apricots and peaches. The tradition of cultivating and producing authentic local wine also adds to the fact that the community is mainly engaged in this sector of agriculture rather than animal husbandry.

Grapes are collected and bought by the main wine producers of the region such as Areni Wine Factory or Areni Winery. Produced peaches and apricots were previously sold to major fruit processors such as ArtFood (Artashat cannery' OJSC). Yet currently, due to very low rates offered by the processors community members prefer to sell the fruit themselves on the Yeghegnadzor, Sisian, Martuni and Nagorno Karabakh markets. Consequently about 90 percent of fruit production sold on retail markets. The remaining part, namely 10 percent is consumed by community members themselves.

Figure 7 Types of Fruit Produced



Source: CCA Workshop Data - Heifer Armenia Calculations

Though there is some fruit infrastructure present at the community, such as fruit cooling unit and drying equipment, nevertheless the equipment is privately owned by individual processors and the community members cannot benefit of it.

3.2.Dairy sector capacity

Livestock production is the second economic sector of Areni. Community members have 200 cows and tentatively produce about 300 tons of milk worth about AMD 60 mln. Sales of raw milk are however insignificant as some 5 percent of the produced milk is sold as raw generating about AMD 3 mln at best retail prices. The remaining part of milk is processed by the households into cheese and other dairy products and is sold on irregular basis or is consumed internally. Small volumes of raw milk produced are conditioned by the fact that there is no sufficient fodder base for the community animals.

During the summer season the animals are taken to remote pastures located nearby Jermuk and Chiva. For the winter period the farmers have to buy fodder from other communities. However despite this fact there are still 80 small scale farmers who are mainly engaged in animal breeding. These farmers are mainly processing the milk into cheese or sell the raw milk to local processors such as “Golden Goat”.

Currently, there is a milk cooling/collecting unit in the community but the capacity of it is very small for the size of the community existing livestock. Besides the on road market gives the community members possibility to sell the milk with better prices.

To conclude, the natural climate conditions as well as geographical location of the community does not create favorable conditions for further development of the diary sector. Deserted, rocky mountainous surrounding of the community do not create very favorable conditions for animals natural grazing and thus hinder the development of overall dairy sector.

3.3.Tourism Sector Capacity

Areni currently on average attracts more than a 1,000 foreign and local tourists each year. The location of the community is very attractive both for hiking tourist as the surroundings of the rich with picturesque rocks and caves, as well as for those exploring historical and architectural monuments of Armenia.

Areni is famous for its wine and harvest festival which is organized each year. The festivities and celebrations attract many tourists both foreign and local. There are also day tourists visiting the community to enjoy a nice picnic by the river. Another category of the tourist visiting the community is those who are passing by the community on their way to Syunik and Nagorno-Karabagh. Thus Areni is strategically well positioned for further development of tourism sector.

There are several (11) non-formal B&B service providers in the community and its surroundings which together can house about 50 visitors. Community members believe that if there is a possibility to develop more formal B&B facilities in the community, they will be able to attract many more tourists to the community and its surroundings.

The main historical monuments in relative proximity to the community are:

- Holy Mother of God Church 14th century
- Noravank Monastery Complex
- Hrashqaberd fortress
- Historical bridge built in 13th century
- Remnants of Fort of Ertij

The natural attractions in nearby Areni are:

- Beautiful nature with a variety of rare animals
- Rocky mountains and other attractive places for hiking tourists & alpinists
- Kosajur mineral water spring, healing skin diseases
- Trchkanner caves, where important archaeological findings took place recently
- Waterfalls in the mountains

Next to natural and historical attractions community can also offer a range of local culinary specialties such as:

- Areni wine
- Areni grapes
- Special lavash bread
- Koghak river fish
- Beghlu river fish
- Buried cheese
- Special pickles made of wild herbs

As festivities and holidays that have special meaning for community members and could attract tourists, the community members indicate:

- Wine festival on the first Saturday of October

Community members have some informal experience related to B&B services provision. However, this experience is very informal and comes from hospitality traditions of the region and does not have specific business oriented objective. Also there is some informal links with a tourism service providers “Hyurservice”, who advice tourist on where to stay and what to see when travelling to this region.

As 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 touristic value of the community
- 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 Areni does have 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 Areni’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 Areni community regarding various general and value chain specific resources.

The maximum possible score on community resources is 200. The scoring is done based on objective 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 Areni Community Resources (on a scale of 1-5)

Indicator	Score	Weight	Weighted Score
General Community Capacity			
Community Educational level (37%)	2	3	**6**
Community vitality (18%)	4	3	**12**
Community infrastructure (existence and condition of roads, water, energy sewage etc.) on a scale of 1-5	2	2	**4**
Community Natural resources	2	2	**4**
Total Score General Community capacity			**26**
Dairy sector capacity			

Milk Production (Milk production/per capita) on scale of 1-5 =0.67	2	4	**8**
Milk Productivity (Milk production/animal head ratio etc.) = 1.8 on scale of 1-5	3	2	**6**
Fodder Availability (Animal/pasture) on scale of 1-5	2	3	**6**
Dairy sector related experience and infrastructure (on scale of 1-5)	3	1	**3**
Total Score Dairy Sector Capacity			**23**
Fruits sector capacity			
Ability to produce quality fruit (on scale of 1-5) (0.1)	3	4	**12**
Fruit quality (scale 1-5)	5	3	**15**
Existence of Fruit infrastructure (hail centers etc.) on scale of 1-5	3	2	**6**
Fruit sector related experience and knowledge (on scale of 1-5)	2	1	**2**
Total Score Fruit Sector Capacity			**35**
Tourism Sector Capacity			
Tourism related resources as natural, cultural etc. (On scale of 1-5.)	4	3	**12**
Current tourist visits to the community (on scale of 1-5)	5	2	**10**
Existence of tourism infrastructure (B&Bs, restaurants, spas etc. on scale of 1-5)	3	3	**9**
Existence of tourism related experience and knowledge (on scale of 1-5)	3	2	**6**
Total Score Tourism Sector Capacity			**37**
Total Score Community Resources			**121**

Source: CCA Workshop Data - Heifer Armenia Calculations

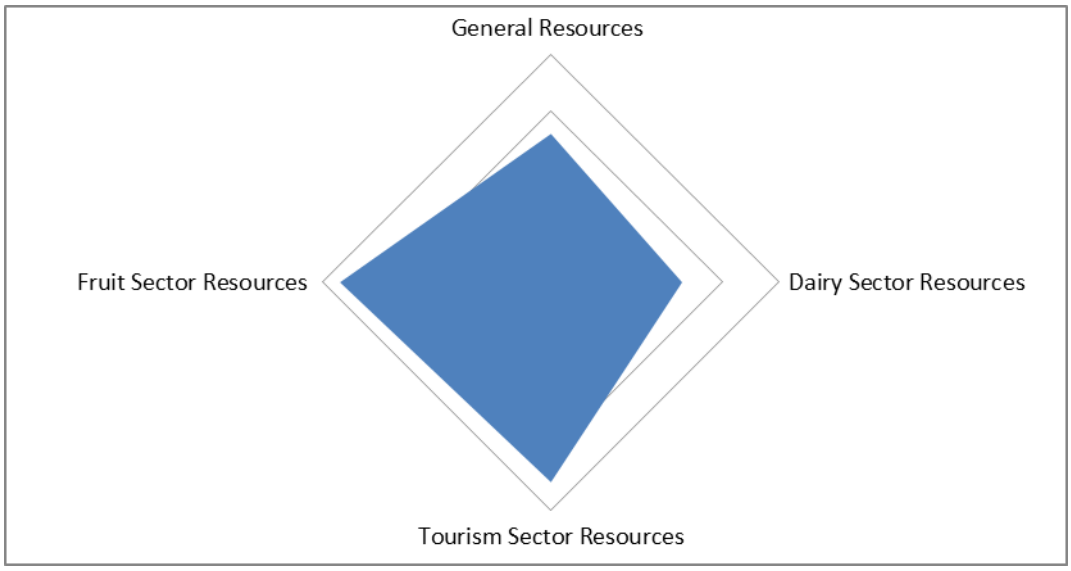
The highest scores of Areni regarding community resources relate to tourism sector capacities with the score of 37. The second highest score is of the fruit sector with the score of 35. The third highest score involves general resources of the community which was 26. The most disadvantaged sector in terms of resources and capacities is diary sector.

Though hospitality and tourism infrastructure is underdeveloped in Areni, nevertheless, there is a vast potential for further development of this sector. This is conditioned both by rich natural attractions of the area, such as caves and waterfalls, as well as by the numerous historical and architectural monuments that are concentrated here.

It is also important to mention the wine tradition for which the region is famous is still attracting many visitors to the community. Community members believe that all of these resources can serve as strong base to further develop this sector and make it one of the region's leading economic centers. The total weighted score of Areni on community

resources is 121. The following figure presents a visual illustration of the community resources in the four indicated areas.

Figure 8 Areni 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 Areni community regarding various general and value chain specific resources. The scoring is again done based on objective 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 Areni Community Resources Utilization

Indicator	**Score**	**Weight**	**Weighted Score**
Dairy sector capacity			
Utilization of fodder base (Animal/pasture on a scale of 1-5) 5.3-1.8=3.5	2	3	**6**
Milk collection level (production/collection on a scale of 1-5)	1	4	**4**
Community milk Productivity (on a scale of 1-5)	2	1	**2**
Overall dairy sector resource utilization (on scale of 1-5)*	3	2	**6**
Total Dairy Sector (Max 50)			**18**
Fruits sector capacity			
Utilization of quality production capacity (on a scale of 1-5)	4	3	**12**
Current sales of quality fruit production (on a scale of 1-5)	3	3	**9**
Professional Fruit processing (on a scale of 1-5)	2	2	**4**

Overall fruit sector resource utilization (on scale of 1-5)	2	2	**4**
Total Fruit Sector Max 50			**29**
Tourism sector capacity			
Use of natural, cultural and other resources for community development of 1-5.)	3	4	**12**
Revenue generation through hospitality services (as B&Bs, restaurants, etc. on scale of 1-5)	3	3	**9**
Professional use of tourism related Knowledge and HR capacity (on scale of 1-5)	3	2	**6**
Overall Tourism sector resource utilization (on a scale of 1-5)	2	1	**2**
Total Tourism Sector Max 50			**29**
Total Score Resource Utilization			**<u>76</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 Areni community was 76 out of 150. With a score of 18, the most underutilized sector is the dairy sector. Fruit sector and tourism sectors both scored 29. This is explained by the geographical location and climate conditions which are favorable for fruit growing and less so for animal husbandry.

Therefore up to now, the community has mainly capitalized on production of fruit and wine. However, there seems to be great potential to further develop this sector through creation of sector related infrastructure and helping the farmers to access larger and more profitable markets. Exact potential of the community in this regard will need to be further explored.

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 Areni in relation to the mentioned indicators and the total weighted score of the community regarding enabling environment.

Table 6 Areni's Enabling Environment

Indicators	**Score** (1-5)	**Weight**	**Weighted Score**
Willingness of community members and officials to invest and activity participate in the program	4	6	24
Willingness of community members to cooperate towards common gain and development	2	4	8
Coverage of the community by other development projects/initiatives.	2	1	2
Linkage of community with existent (business) support structures	4	1	4
Position of the community to serve surrounding communities	4	8	32

Total Score Enabling Environment	**70**

Source: CCA Workshop Data - Heifer Armenia Calculations

The total score of Areni for enabling environment is 70. The community scored the highest on linkage of the community to other support structures and the community's favorable location to serve as a cluster centre for surrounding communities. Among others, various credit organizations as ACBA Credit Agricole, CARD Agrocredit and FINCA are active in the community and are providing the population with micro financial services.

The community also scored high regarding the willingness of the members to participate in the program, this is also a very important indicator and plays an important role in the success of the overall program. The ability of community members to work with each other is particularly important in case cooperative approaches such as milk producer or fruit processing cooperatives are to be established in the community.

6. CONCLUSIONS

Areni is one of the communities located in Vayots Dzor Marz of Armenia. The community houses 2067 residents of which the vast majority is mainly involved in fruit production, particularly grape production. Wine and fruit production are the main income source for the households living in the community. The community produces quality sorts of peaches and apricots and unique grapes that is mainly utilized for wine production. The community is also involved in animal husbandry; yet, this sector remains small due to the unfavorable climate and geographical conditions which predominantly affect the fodder base available.

The total competiveness assessment score of Areni was 115. 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 scored high on 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 Areni scored the highest on tourism sector capacity (37) which involved favorable climate and geographical conditions as well as the richness of the regions historical, architectural and archaeological heritage. The fruit sector has the second highest score regarding value chain specific resources. As a result, the dairy sector is the most underutilized in Areni.

With regard to resource utilization, utilization of resources was also low in the dairy sector. Both fruit and tourism sectors show to have high capacities in terms of availability and quality of production and other sectorial capacities yet the scores on resource utilization are low due to limited availability of any sector related infrastructure.

Areni scored relatively high on enabling environment. Community has relatively good links with existent business support structures and has been covered by some of the development organizations in the past. The community is located right on the highway and is serving as a hub to southern regions of Armenia. The community also scored high on its capacity to function as a cluster centre and serve its surrounding communities. The latter has a large importance to the 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) on a scale of 1-5	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.) on a scale of 1-5	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.) on a scale of 1-5	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 (on scale of 1-5)	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, hospitability 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. on scale of 1-5)	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	
Indicator	**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 on a scale of 1-5)	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 (on scale of 1-5)	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 sales of quality fruit production	Percentage of quality production sales 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 of 1-5.)	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. on scale of 1-5)	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 (on scale of 1-5)	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 (on a scale of 1-5)	Independents expert evaluation of various components of influence to sector capacity and its utilization.

8. ANNEX 1: 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.