



ADVANCED RURAL DEVELOPMENT INITIATIVE

COMMUNITY COMPETITIVENESS ASSESSMENT

AHNIDZOR



This study is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of ARDI and do not necessarily reflect the views of USAID or the United States Government.

Disclaimer: The contents of this publication express opinions of community focus groups and are of sole responsibility of the author(s). Heifer Armenia and Fuller Center for Housing grant permission to use this document as long as the text & title are not modified. The source and the author's name (Heifer Armenia) must be displayed.

This material is made available to readers under the provisions of "fair use" in an effort to advance a better understanding of economic and social resources and constraints in rural Armenia. This document is distributed without profit to those who have interest in using it for research and educational purposes.

Please use this suggested citation when referencing to the report or presented data: Heifer Armenia 2013. *Community Competitiveness Assessment: Report on Ahnidzor*. United States Agency for International Development's Advanced Rural Development Initiative: Yerevan, Armenia.

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.



Table of Contents

INTRODUCTION.....	Error! Bookmark not defined.
1. METHODOLOGY	2
2. COMMUNITY PROFILE.....	4
2.1. Community Territory	4
2.2. Demographic Profile	5
2.3. Economic Profile	6
2.4. Labor Force and Employment.....	7
2.5. Environmental Situation	9
3. COMMUNITY RESOURCES.....	10
3.1. Fruits Sector Capacity	10
3.2. Dairy sector capacity.....	10
3.3. Tourism Sector Capacity	11
3.4. Score of Community Resources	12
4. RESOURCE UTILIZATION.....	17
5. ENABLING ENVIRONMENT.....	19
6. CONCLUSIONS.....	21
7. ANNEX 1: APPRAISAL APPROACH	22
8. ANNEX 2: INFRASTRUCTURAL INVENTORY (Armenian).....	25

List of Tables

Table 1 De facto Population by Age (number and % of total population).....	5
Table 2 Main Agricultural Outputs of Ahnidzor	6
Table 3 Experts In non-agricultural and agriculture related fields.	9
Table 4 Ahnidzor Community Resources (on a scale of 1-5)	14
Table 5 Ahnidzor Community Resources Utilization (on a scale of 1-5).....	17
Table 6 Ahnidzor’s Enabling Environment	20

List of Figures

Figure 1 Community land Classification.....	4
Figure 2 Gender Classification of the community.....	5
Figure 3 Occupation of Working Age population.....	7
Figure 4 Direction of Self Employment	8
Figure 5 Community Education level	8
Figure 6 Field of Higher (Professional) Education.....	8
Figure 7 Types of Fruit Produced	10

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

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.

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 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 Ahnidzor community.

2. COMMUNITY PROFILE

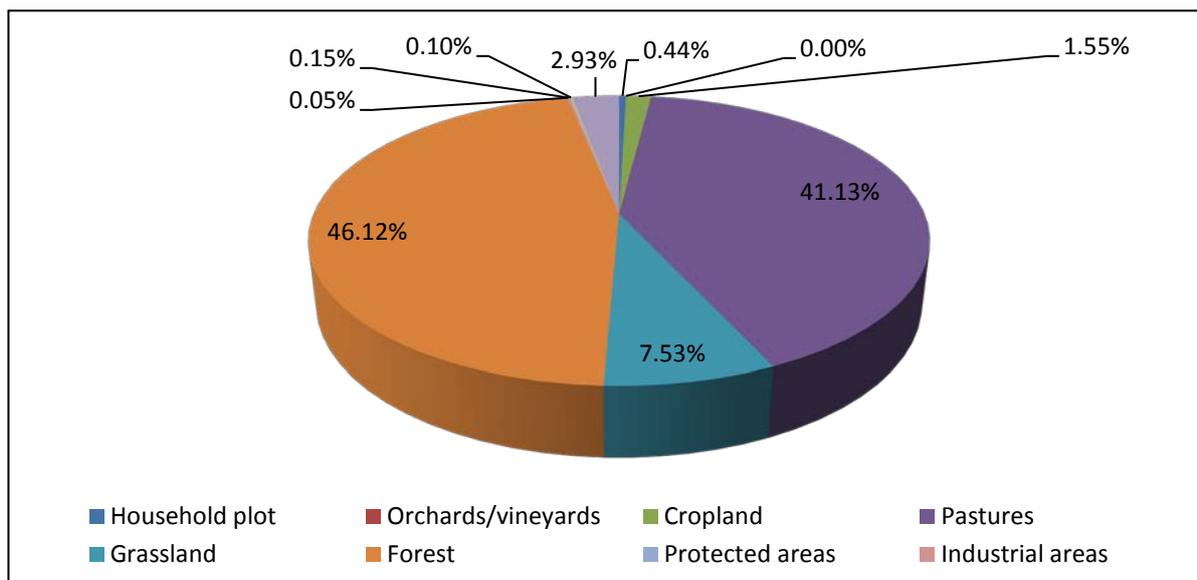
Ahnidzor is located in Lori region on a distance of 52 km from the Marz capital Vanadzor. The village was founded in the 18th century and was formerly named Ahnazar and Ahnizoravor. The community is located on 1500 m above the sea level, has a harsh mountainous climate with cold and snowy winters and relatively warm but humid summers. The neighboring communities are Lorut (7km), Shamut (10km), Atan (17km) and Marts (15km).

Traditionally the main agriculture sectors in which the population was engaged for centuries is livestock breeding, as the climate conditions and high elevation do not predispose for quality fruit and vegetables production. The community also produces very good quality of honey and has some 800 beehives producing some 8 tons honey a year.

2.1. Community Territory

The total surface of Ahnidzor covers an area 6037 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



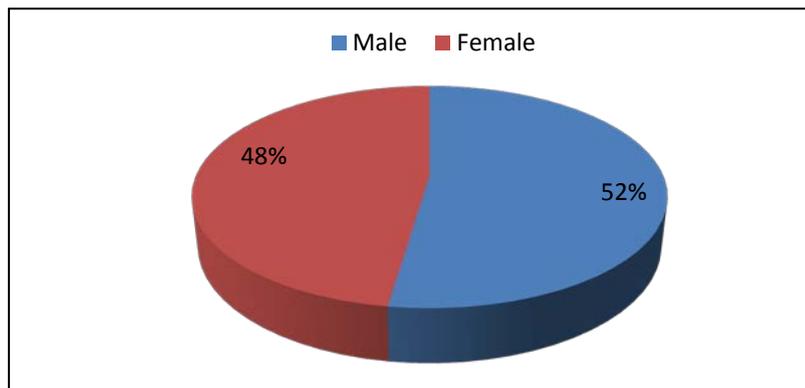
Source: Ahnidzor Community Land Register

A large share of Ahnidzor’s territory involves pastures and grasslands which together make up about 42 percent of the total community territory. The pastures and grasslands are located high in the mountains and mainly consist of alpine meadows, which provide excellent fodder base for livestock. The remaining large land classification is forest similar to other communities in this region. 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

Ahnidzor is a relatively small community and houses 68 families and has a de facto population of 214 people, of which 112 are male and 102 are female.² Compared to de facto population of 344 people in 2001, the population of Ahnidzor decreased during the last decade mainly due to migration which was fueled by various socioeconomic issues such as insufficient employment opportunities available and others.

Figure 2 Gender Classification of the community



Source: CCA Workshop Data - Heifer Armenia Calculations

About 75 percent (161 ppl) of the population of Ahnidzor are of working age (16-65). Moreover, 22 percent or 48 people of the total population are young individuals aged between 15-29 years old. This is a comparable percentage compared to the Lori Marz average as marz level statistics also reveal 22 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
Ahnidzor	11 - 5%	16 - 7%	21 - 9%
Lori Marz	9916 - 9%	7297 - 7%	6040 - 6%

Source: CCA Workshop Data - Heifer Armenia Calculations and NSS data³

The average share of the selected age groups of the total community population is comparable to Lori Marz level average. Ahnidzor 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 livestock breeding is the main economic sector of the community followed by Crop production and Honey production. Community members may have small irregular employment/income from other sources/sectors which are not covered in these calculations.

As presented in Table 2, the total average output of the Ahnidzor dairy sector is 430 tons of raw milk per year. This is about 2009 liters of milk per production per capita which is a very good figure compared with other communities of the region. The total sales of milk and milk products does not exceed 45 percent of production. This should result in an overall monetary output of about 38.7 mln AMD per year generated by the sales of milk and milk products.

Community members are also producing some fruit and vegetables but these are only for household use and none of them reach the market. Also the community has some 800 beehives in total and produces annually 8 t of high quality honey. Honey is sold relatively easy and about 90 percent of the output reaches the customers generating AMD 21.6 mln income.

Table 2 Main Agricultural Outputs of Ahnidzor

Economic Sectors	Annual Agricultural output	Percentage Sold	Monetary Output (mln AMD)*
Dairy Production	Milk 430 t –	45%	38.7
Horticulture	Fruit 18 t (apples 8, pears 5, plums 4.5, walnuts 0.8)	0	0
Beekeeping	8 t	90%	21.6

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

AMD prices per kg/l: milk 200, honey 3,000.

Source: CCA Workshop Data - Heifer Armenia Calculations

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:

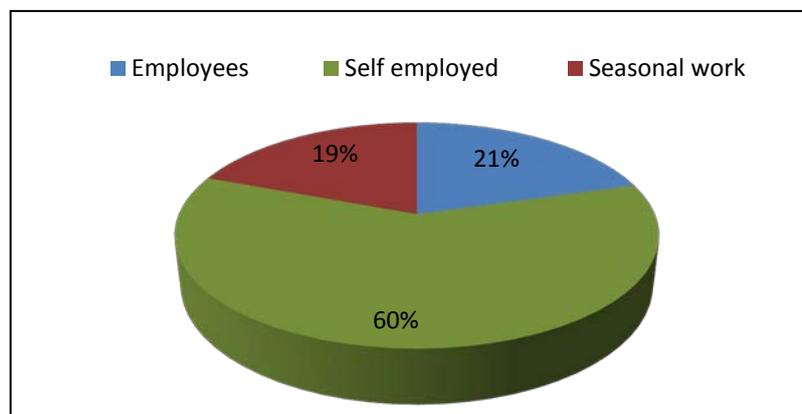
- Rural tourism
- Mineral waters
- Bio-fuel production from forest leaves

The impressive nature which surrounds the community and a good number of cultural and historical monuments can serve as 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. Also there are mineral water springs in the mountainous parts of the community lands. These are possibly very good opportunities for building and exploiting spa and mineral water centers in the community. A more detailed elaboration on (a potential) tourism sector in Ahnidzor is provided in chapter 3.

2.4. Labor Force and Employment

Currently Ahnidzor has a working age population of 161 people (de facto population between 16 and pension age 64). 33 individuals or about 21 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 occupation of the working age population in terms of regular employment, self-employment and or seasonal work is illustrated in the following figure.

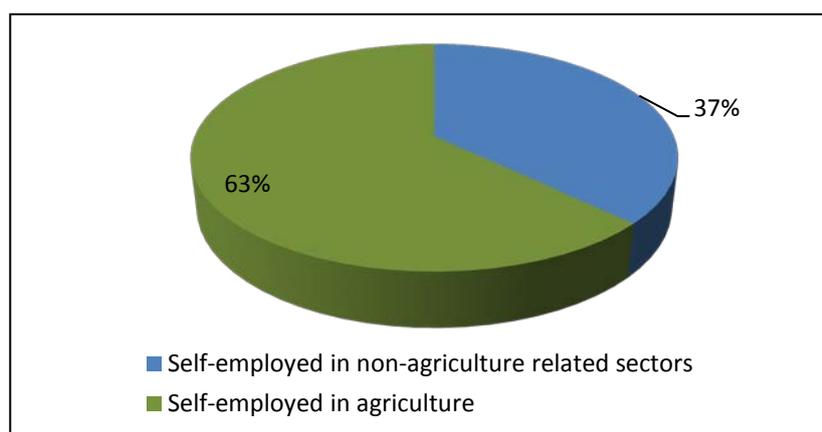
Figure 3 Occupation of Working Age population



Source: CCA Workshop Data - Heifer Armenia Calculations

As illustrated above, about 19 percent of the working age population is engaged in seasonal work which involves seasonal work in Armenia and foreign countries. The community is mainly reliant on self-employment and entrepreneurship. About 97 individuals or 60 percent of working age population in Ahnidzor are self-employed. Of this group 37 percent are occupied in non-agriculture related and 63 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 therefore self-employed in the agricultural sector. Self-employment however does not necessarily mean regular income; this is made even more obvious by the results of community consultations. The latter revealed 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.

In terms of Education, around 53 percent of the population of Ahnidzor or 113 people have completed secondary education, and 22 percent or 48 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

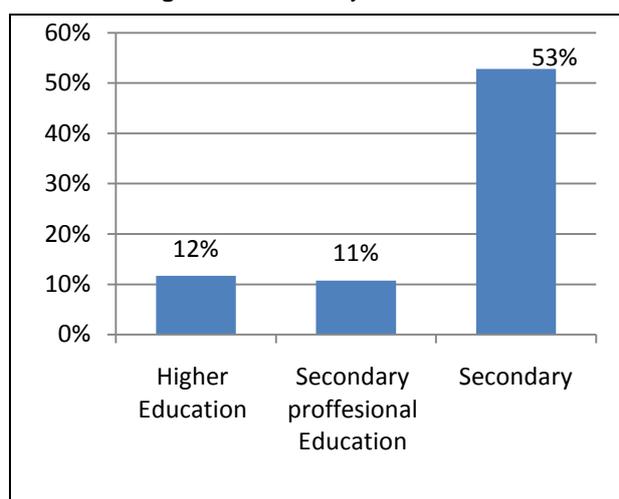
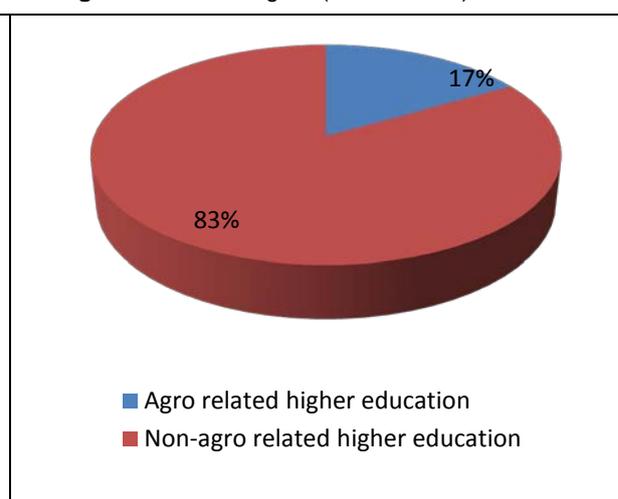


Figure 6 Field of Higher (Professional) Education



Source: CCA Workshop Data - Heifer Armenia Calculations

As it is illustrated above Ahnidzor has considerable human resources. But it is also notable that only 17 percent of all individuals with higher and secondary professional education have specialized on agriculture related disciplines. The remaining 83 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	4	(Milk) technicians	1
Engineering	1	Engineering	2
Management	1	Management	2
Tourism	0	Veterinarian	3

Source: CCA Workshop Data - Heifer Armenia Calculations

With regard to agriculture related education and expertise, there is 1 milk technician, 2 engineers and 2 individuals with an agro management related expertise. The community has also 3 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.

Although human resources in agriculture and non-agriculture related fields of Ahnidzor seem limited, as it was previously mentioned, the community traditionally was engaged in animal husbandry and there is a vast experience base present 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 issues that currently threaten the natural environment of the community and evaluate the level of these issues on Ahnidzor’s development. Focus group members highlighted deforestation as the main factor threatening the natural environment.

The main issue mentioned by the focus group members is deforestation: as it was already mentioned Ahnidzor has a vast forest area which is considered a large resource for the community. But 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 Ahnidzor is continuously increasing.

3. COMMUNITY RESOURCES

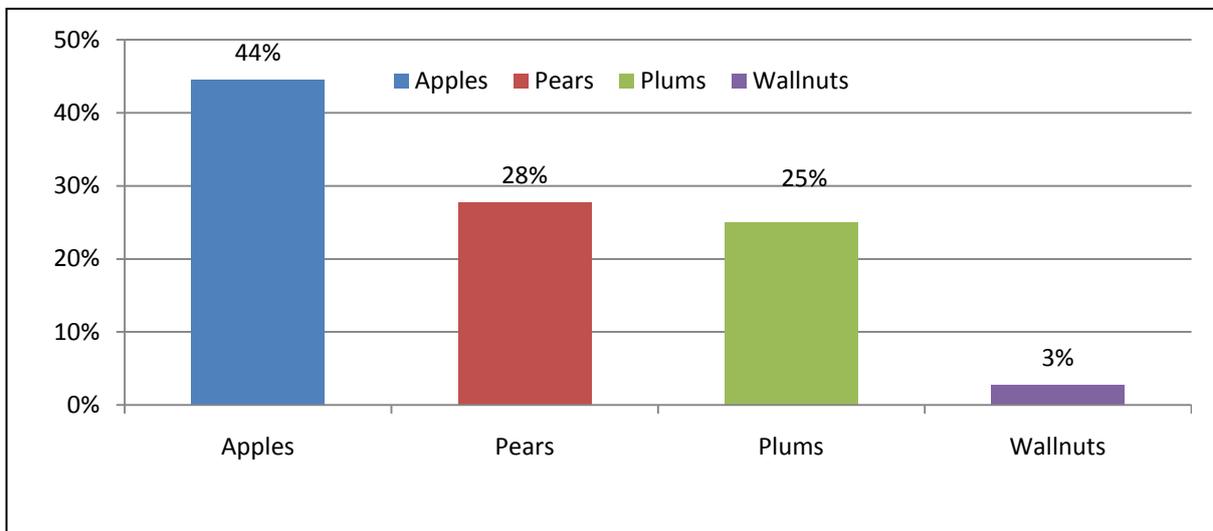
This section of the community assessments focuses on the resources and capacities of target communities in the three main target sectors/value chains of the ARDI program. This involves the Dairy, Fruit and Rural Tourism value chains. The results presented in this subsection will allow us to narrow down the focus of community assessments and evaluate the potential of a community 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 Ahnidzor community is provided in ANNEX 2 of this report.

3.1.Fruits Sector Capacity

Fruit production volumes in Ahnidzor are low. Ahnidzor is a mountainous community located on a high altitude of about 1,500 m above the sea level. This creates unfavorable conditions for production and cultivation of fruit with any market value. The only fruit trees that grow here are apples, pears and plums. Currently none of the fruit harvest is reaching the market and almost entirely consumed by the households for their nutrition. The figure below illustrates average volumes and shares of the fruits produced.

Figure 7 Types of Fruit Produced



Source: CCA Workshop Data - Heifer Armenia Calculations

3.2.Dairy sector capacity

As it was mentioned before in this report Livestock production is the main community sector in Ahnidzor. Currently there are 40 small holder farmers in Ahnidzor who are active in this value chain. Community members have 237 cows and tentatively produce about 430 tons of raw milk, worth about AMD 86 mln annually. Sales of raw milk is however insignificant as

only 5 percent of produced milk is sold as raw milk generating about AMD 4.3 mln annually at best. (retail prices, please see Table 2)

The remaining part of milk is processed by the households into cheese and other dairy products and is sold on an irregular basis. In Ahnidzor such as in many other communities the inability of farmers to sell raw milk on a consistent basis, forces small holders to make much larger time and resource investments in to milk processing. This also results in higher sales related costs and much more irregular and unpredictable income from selling the dairy products.

In comparison with the potential resources for the animal breeding actual quantities and volumes of raw milk produced per animal head are relatively low (1.8). This is conditioned with the fact that there is no organized system of animal grazing. The animals most often are not taken to the pastures and are grazing in the nearby grasslands. Thus the grasslands are getting overgrazed. Another factor that negatively influences milk production per animal head is the fact that no breed improvement measurements, like artificial insemination have never been undertaken in the community.

Moreover, the community does not have any sector related infrastructure as there are currently no milk collection/cooling units. This is another reason why the community cannot sell raw milk successfully. To conclude, conditioned by the climate as well as by the natural resource availability, Dairy sector in Ahnidzor seems to be very promising in terms of further development potential. But lack of value chain related infrastructure such as consolidation units hamper milk production and the sales by the community. .

3.3.Tourism Sector Capacity

Ahnidzor currently attracts on average about 120 foreign and some 180 local Armenian tourist every year. The tourists visiting the community are either day tourists who are eventually coming there to enjoy the forest and nature. These are either relatives or their friends who have emotional or other relationship with the village. Tourists mainly hear about Ahnidzor from word of mouth as there are no professional tour agencies which promote the community and organize tours to that part of the region.

Currently there are no B&Bs or any other formal accommodation services offered in Ahnidzor. The nearest hotel is located in Haghpat, which is 60 far from the community. This hotel can house about 50 guests at a time.

However community members believe that there is potential for B&B facilities in Ahnidzor 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.

Ahnidzor's has vast natural resources and historical and architectural monuments which may attract visitors. The main historical monuments in relative proximity to the community are:

- Khatchkars in the village and in the forest
- "Surb Zoravor" Chapel;
- Mountains of Tavush , as the village is located on the way to Kirants monastery

The natural attractions in or nearby Ahnidzor 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
- Mineral waters
- 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
- Vardavar ag'dak (special pastry)
- String yogurt with butter -Ghaymagh
- Wild pear vodka

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

- Fest of Vardavar celebrations
- Qaryan's day (one of the founding families of the village) celebration – August 17th

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 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 Ahnidzor 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 Ahnidzor'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 Ahnidzor 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 Ahnidzor Community Resources (on a scale of 1-5)

Indicator	Score	Weight	Weighted Score
General Community Capacity			
Community Educational level	2	3	6
Community vitality	4	3	12
Community infrastructure (existence and condition of roads, water, energy sewage etc.)	3	2	6
Community Natural resources	3	2	6
Total Score General Community capacity			30
Dairy sector capacity			
Milk Production (Milk production/per capita)	5	4	20
Milk Productivity (Milk production/animal head ratio etc.)	3	2	6
Fodder Availability (Animal/pasture)	5	3	15
Dairy sector related experience and infrastructure	3	1	3
Total Score Dairy Sector Capacity			44
Fruits sector capacity			
Ability to produce quality fruit	1	4	4
Fruit quality	2	3	6

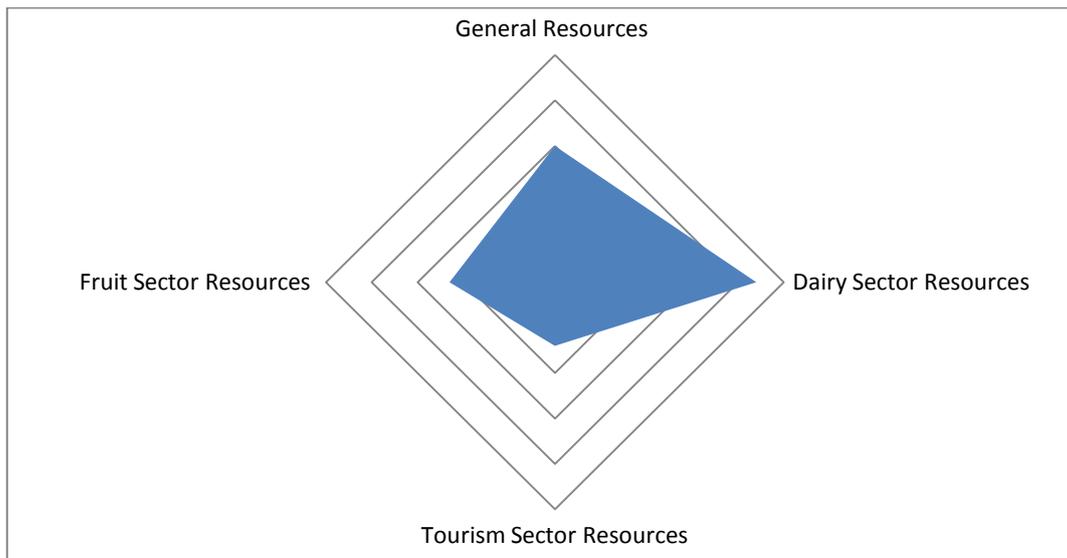
Existence of Fruit infrastructure (hail centers etc.)	1	2	2
Fruit sector related experience and knowledge	2	1	2
Total Score Fruit Sector Capacity			14
Tourism Sector Capacity			
Tourism related resources as natural, cultural etc.	3	3	9
Current tourist visits to the community	3	2	6
Existence of tourism infrastructure (B&Bs, restaurants, spas etc.)	2	3	6
Existence of tourism related experience and knowledge	1	2	2
Total Score Tourism Sector Capacity			23
Total Score Community Resources			<u>111</u>

Source: CCA Workshop Data - Heifer Armenia Calculations

The highest scores of Ahnidzor regarding Community Resources relate to Dairy sector capacities with the score of 44. The second highest score is for general community resources which equaled 30. The most disadvantaged sector in terms of capacities in Ahnidzor region is Fruit Sector. This is mainly due to the natural climate conditions and unfavorable location of the village above the sea level.

Hospitality/tourism sector is also very underdeveloped in Ahnidzor, as there are no such resources as knowledge and/or experience related to the field. However the community members indicate that there are mineral water springs in the community, which assumingly have healing qualities for such illnesses as arthritis etc these attributes However need to be further evaluated. Community members believe that these can serve as a very attractive sites for the tourist to visit to drink mineral water take spa procedures. The total weighted score of Ahnidzor on community resources is 111. The following figure presents a visual illustration of the community resources in the four indicated areas.

Figure 8 Ahnidzor 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 Ahnidzor 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 Ahnidzor Community Resources Utilization (on a scale of 1-5)

Indicator	Score	Weight	Weighted Score
Dairy sector capacity			
Utilization of fodder base (Animal/pasture)	1	3	3
Milk collection level (production/collection)	3	4	12
Community milk Productivity	2	1	2
Overall dairy sector resource utilization	3	2	6
Total Dairy Sector (Max 50)			23
Fruits sector capacity			
Utilization of quality production capacity	2	3	6
Current sales of quality fruit production	1	3	3
Professional Fruit processing	1	2	2

Overall fruit sector resource utilization	2	2	4
Total Fruit Sector Max 50			15
Tourism sector capacity			
Use of natural, cultural and other resources for community development.)	2	4	8
Revenue generation through hospitality services (as B&Bs, restaurants, etc.)	1	3	3
Professional use of tourism related Knowledge and HR capacity	1	2	2
Overall Tourism sector resource utilization	2	1	2
Total Tourism Sector Max 50			15
Total Score Resource Utilization			<u>53</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 Ahnidzor community was 53 out of 150. With a total weighted score of 15, both fruit and tourism sectors are the most under-utilized of the community evaluated in this framework. The next is dairy sector, which should be explained with the natural and geographic conditions of the community, as most of the land owned by the community involves forests, alpine pastures and grasslands. However such land structure creates favorable conditions for Dairy sector capacities

Therefore up to now the community mostly capitalized on production of raw milk and secondary dairy products. However there is potential to further develop dairy value chain, because the community hardly has any dairy value chain related infrastructure and poorly monetizes on processing of raw milk and production of marketable secondary dairy products.

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

Table 6 Ahnidzor's Enabling Environment

Indicators	Score (1-5)	Weight	Weighted Score
Willingness of community members and officials to invest and actively participate in the program	4	6	24
Willingness of community members to cooperate towards common gain and development	5	4	20
Coverage of the community by other development projects/initiatives.	2	1	2
Linkage of community with existent (business) support structures	3	1	3
Position of the community to serve surrounding communities	2	8	16
Total Score Enabling Environment			<u>65</u>

Source: CCA Workshop Data - Heifer Armenia Calculations

The total score of Ahnidzor on enabling environment is 65. The highest community score relates to the willingness of community members and official to invest and actively participate in the program. Currently, the community is poorly covered by development organizations (only in 2012 the community was included in Community agricultural Resource Management and Competitiveness project).

The community also has limited links to existent (business) support structures. Also the location of the community is quite remote and on the side from the main regional highway. Nevertheless, the community scores high (20) for its members willingness 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. These factors position the community among those with favorable enabling environment for implementation of the ARDI program.

6. CONCLUSIONS

Ahnidzor is one of the communities located in Alaverdi region of Lori Marz of Armenia. The community is relatively small and houses 214 residents of which the vast majority is mainly involved in animal husbandry, followed by beekeeping and vegetable growing activities. Animal husbandry is the main income source for the households. The community produces some fruits such as apples and pears, as well as vegetables like potatoes and cabbages, yet, these are barely enough to cover community households nutrition needs.

The total competitiveness assessment score of Ahnidzor was 123. In general, the community scored relatively high on community resources and enabling environment and low on 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 Ahnidzor scored the highest on dairy sector capacity (44) which involved favorable climate and geographical conditions and a large fodder base. The latter is sufficient both to provide nutrition for the animals during summer period, and to preserve fodder for the winter period. Fruit and Tourism sectors scored relatively low with respective scores of 14 and 23. Fruit sector related capacities scored the lowest due to unfavorable climate and geographical conditions as the community lands are located high above the sea level.

With regard to resource utilization; utilization of resources was low both in fruit and tourism sectors. There are no professional tourism services offered as well as non of the fruit produced in the community is sold. There is a lack of value chain related infrastructure regarding fruit and dairy value chains in Ahnidzor. Having in mind the availability of natural and historical attractions and rich nature, it can be indicated that the tourism sector is drastically underutilized. Taking into account the resources of the community regarding tourism, this sector can also have potential for contribution to Ahnidzor's development keeping in mind its natural resources such as mineral waters and rich forests.

Ahnidzor 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 located quite far from the highway and its position is not optimal to serve as a cluster center for surrounding communities which are also located far from the main road. 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	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	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.)	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)	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 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.)	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.