ALCP | Alliances Lesser Caucasus Programme

ALLIANCES LESSER CAUCASUS PROGRAMME

Impact Assessment 2016

Samtskhe-Javakheti

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SECTION 1: PURPOSE AND THE RATIONALE OF THE IMPACT ASSESSMENT

The Alliances Lesser Caucasus Programme in Samtskhe-Javakheti region is an SDC funded Mercy Corps Georgia implemented market development programme run in accordance with the M4P approach working in the dairy, beef and value chains since October 2008, where it launched in three municipalities (Adigeni, Akhaltsikhe and Aspindza) with a seven-month inception phase. The second phase, which also integrated two more municipalities (Akhalkalaki and Ninotsminda) in wake of program expansion started from January 2012 and continued until the end of 2014 year.

From the beginning of 2015 Samtskhe-Javakheti program was awarded a two year of 'Standby phase' till 2017. It provided a great opportunity for the program to monitor and assess the sustainability of results, systemic changes and lessons learned from the implementing phases. It also intended to further the programs knowledge about the development going on in the region after the end of program's active phase and to understand the range of outcomes to which it's programming may have contributed. The program applied various methods to validate and measure the afore-mentioned changes: Market Analysis, Impact Assessment Surveys, monthly monitoring for the on-going interventions, mini sample surveys, on-going interaction with market players and further qualitative interviews about the observed issues. **It is notable, that the Stand by phase intended to show the trends and what happened after the active phase of the programme. Thus, the figures referring this period are not fully attributable to the programme.**

The second Impact Assessment Survey of the programme was carried out in October 2016 by the end of the standby phase and mainly focused on the period from 2014 to 2016. The detailed methodology for the survey can be found in Annexes A and B at the end of the document.

The objective of the study was to assess the programme effect on major target beneficiaries: i.e. small scale livestock producers in the Samtskhe-Javakheti region. The programme was designed to impact a large number of beneficiaries i.e. Small Scale Livestock Producers (SSLP's) through leveraging entry points with private sector and government market actors; Furthermore, along with farmers the programme has impacted other market players in target sector (copying and crowding in) and also effected broader sector development. Therefore, the study aimed to summarize all sizable effects on the livestock sector. In particular, the key aims of the analyses are:

The main data source of this analysis is the 'October 2016 Impact Assessment Survey (farmer level)'; however, for further justifying the programme attribution, triangulated data from three different sources results were exploited:

1. Programme clients' data - for business related financial indicators;
2. Annual qualitative impact assessment data per intervention - for further justifying the programme attribution (farmers are asked directly how beneficial the intervention was for them);
3. Mini survey data
4. National statistics Office of Georgia - for capturing the programme contribution in the sector development[1].

[1] http://geostat.ge/

BROAD LESSONS LEARNED FROM THE EXPERIENCE OF THE STANDBY PHASE OF ALCP SAMTSKHE-JAVAKHETI PROGRAM

After the six years (2008- 2014) of implementation phase of the M4P programme, ALCP Samtskhe-Javakheti was honored to have two years of the standby phase.

The Standby Phase provided a great opportunity for the program to monitor and assess the sustainability of results, systemic changes and lessons learned from the implementing phases.

The Stand by Phase proved that market system development approach worked and benefits continued to grow even after the end of the active phase.

Based on the rural population attitudes general situation in the field of agriculture has improved in the recent period which has encouraged them to make investments in a form of buying a land, new cattle, high quality seeds, etc. According to their responses Veterinary, Hay making (machinery), Access to Agricultural Loans, Livestock Nutrition, Meat and Dairy where the areas which were mostly affected in a positive way during past few years (2011 – 2016).

Indeed, farmers affected by the program continue to generate tangible positive income changes; Enhanced meat and dairy markets have opened new prospects / ways for farmers to be involved in a more cost, time and energy efficient activities, while positively influencing their behavior and attitudes.

On the other hand, the businesses are growing. They continue to invest independently from programme assistance, increasing the volume of their production, diversifying their products and improving standards of compliance to various regulations such as FS&H, HACCP, etc. while new jobs are also being created.

91% of entire Samtskhe-Javakheti rural household population continue to use services from the entities supported by the program in the active phase. However, 22% (5,526) of the entire population who used one of the programme facilitated services first time during standby phase can be attributed to the program.

Likewise, total NAIC generated during 2015 and 2016 years by HHs who used program supported services amounts 8,6 m Gel (3,7m USD) out of which one fourth can be attributed to the program (1,905,556 GEL / 810,768 USD).

Out of 383 entities (47 program clients &336 programme supported entities) the program continued to monitor and attribute results of 23% of the entities (87) which were not older than 2 years from being financed in the active phase of the program.

Table 1: Key indicators of changes examined during the Impact Assessment

Statistically representative information was collected from: 204 women (51%) and 196 men (49%). The majority of respondents (the most informed persons within the households regarding agriculture) were above 45. The average size of household is 4.69 person. Those who spoke Georgian represented 86% of the surveyed population and those who did not - 14%. No actual link has been identified between knowledge of Georgian language and having access to the services. In other words, those who know Georgian and who don't, both have equal access to life chances (programme supported services/ goods).[2]

KEY FINDINGS OF THE RESEARCH

- Up to 91% of the target rural population used at least one of the services facilitated in the active phase of the programme;
- Up to 41% of the target rural population generated tangible positive income change due to the services facilitated in the active phase of the programme;
- The impact assessment data shows that farmers' income from livestock related activities slightly increased (4%) 2014 to 2016 in SJ
- 59% of Samtskhe-Javakheti rural household population thought positively about the changes going on in the agriculture during the last 2 years and almost all of them (56%) have made an investment because of this reason (mostly in buying land, cattle, improved seeds, etc.)
- When combined together about 1 million USD was invested in dairy and meat sectors by program clients and crowding- in entities independently from program assistance
- There was no change in average number of cattle owned by programme beneficiary households between 2014 and 2016
- There was a similar situation with the scale of producing hay in 2014 and 2016; however, program beneficiaries tend to cultivate more area in highlands compared to non-beneficiaries
- With the increase in the number of interventions used among rural HHs, their annual incomes from program related activities (in 2016) also tend to rise. However, the chance that these variables influence each other is rather low.[3]

[2] For further strengthening the statement, the same calculations were made for a region – Akhalkalaki, were 76% of the HHs know/ understand Georgian language, and the difference of beneficiary and non- beneficiary groups is 71% vs 29% HHs; Though the findings have not change the picture showing that the knowledge of Georgian language does not influence the chances of having access to the program facilitated services

[3] Unlike Alliances KK. This can be explained by the different implementation of the two programmes. Interventions in KK were intentionally clustered to produce synergy, i.e. supporting functions i.e. inputs; veterinary, breeding, nutrition, and information were made available to villages supplying milk to a factory as were governance related activities. This approach was not used in Alliances SJ.

SUMMARY OF THE RESULTS IN SAMTSKHE-JAVAKHETI REGION		*From 2015 to 2016*
Scale: Number of beneficiaries served *(direct beneficiaries & outside programme area & export)*	Rural households served	22,734
	Average % of Rural households with women members served (average across all interventions)	**60%**
Net attributable income generated for programme beneficiaries - GEL	For all Households served	**8,661,620 Gel** (3,685,311USD)
# of programme clients		**1**[4]
Net attributable income generated for the programme clients		**1,685,516 Gel (727,008 USD)**
# FT Job equivalents		**30 (10 women / 20 men)**
NAIC generated for employees		**571,455 Gel (246,484 USD)**
Indirect Benefits of the Interventions: # of entities		**36**[5]
Indirect Benefits of the Interventions: # of rural households served		23,044
Indirect Benefits of the Interventions: SSLPs' NAIC		**792,884 Gel (341,992 USD)**

SECTION 2: PURPOSE LEVEL IMPACT

91% (22,734) of total number of rural households[6] in the Samtskhe-Javakheti region used at least one of the programme facilitated services or goods. On average per intervention **60%** of the users were women independently or together with other HH members. **10,249** (41% of entire population) rural households generated tangible positive income changes and benefited financially from the programme through direct interventions facilitated in the active phase of the programme[7]. In total, farmers' net additional attributable income in 2016 amounted **7,241,170 Gel /USD 3,059,606**. To sum up the impact

[4] During the active phase of the programme 47 client and 336 supported entities were financed. However, in the stand by phase only one client (a wool enterprise) was added.

[5] Vet pharmacies and vet drug supplier-5, Improved bull service providers-14, Machinery service providers- 4, Dairy processors-11, Slaughterhouses - 2

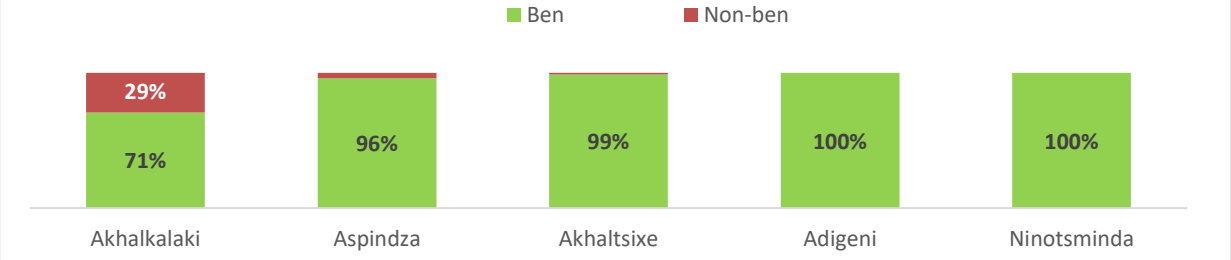
[6] According to the census 2014 program target population comprising rural households of Samtskhe-Javakheti region amounted 25,120 HHs

[7] Not fully attributable to the program

in 2015 and 2016, direct beneficiaries of the programme generated additional **8,661,620 Gel** / **3,685,311USD**[8] through direct interventions facilitated in the active phase of the programme.

The programme covered all **77** communities in the area by the facilitated services, i.e. in each community there is at least one person who has used the programme facilitated services. **34%** of the total rural households used, on average, two services, with Adigeni scoring the highest value (3 service) and Akhalkalaki lowest (1) in the mentioned category. Akhalkalaki also is the region with lowest share of program beneficiaries **(71%)** while the rest of the regions have highest usage indicators (See table # 3).

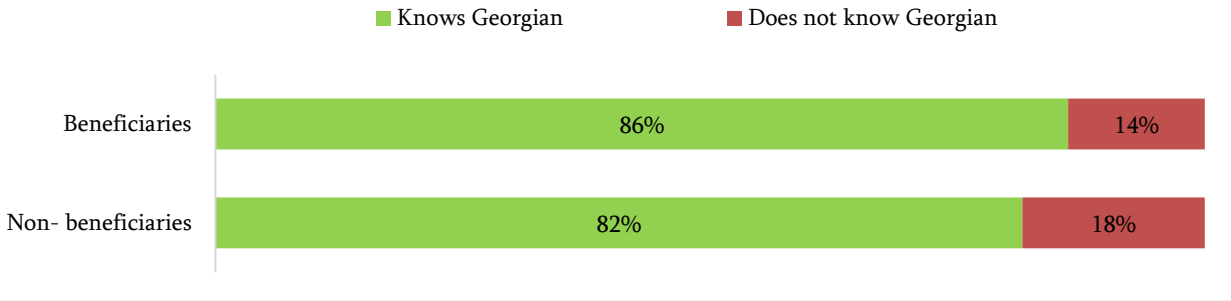
Table 3: Programme beneficiaries by municipalities (% out of whole sample)



Based on the Impact Assessment data, no significant link has been identified between knowledge of Georgian language and having access to the services. For those farmers who know Georgian and who do not know it accessibility to the services is practically identical (91% and 88% of HH respective groups are program beneficiaries).

The likely reasons behind this are that in general the program coverage in Samtskhe-Javakheti region is very wide with 91% of its households having access to at least one of the offered supported services/good in the active phase of the program; and at the same time the scale of population who don't speak Georgian language is rather low (14%); all the above statements make it difficult to infer any linkages between knowledge of Georgian and the level of having access to life chances (using services).

Table 4: Knowing Georgian language and usage of the services

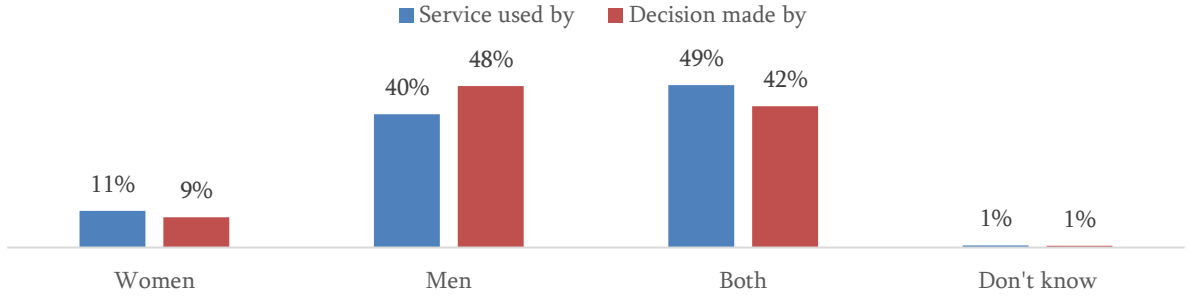


[8] Not fully attributable to the program. Farmers income for 2015-2016 is estimated and comes from monthly data sheet

2.1. Gender Usage per Intervention

From 2014 to 2016, average number of women using the ALCP facilitated services increased from **39%** to **60%**. The impact assessment showed, that in **60%** of the total target beneficiary HHs, women independently or together with other HH members used at least one of the programme facilitated services. To be more precise, in **11%** of beneficiary households[9] only women used services facilitated in the active phase of the programme, in **49%** - the services were used by both genders, and in **40%** men were the sole users. Women tend to be slightly less involved in the decision making in context of usage of services: On average, in **51%** of the households decisions are made by women or together with other households' member (See Table 5).

Table 5: Usage and Decision Making Relevant to the Services by Gender (% out of whole sample)

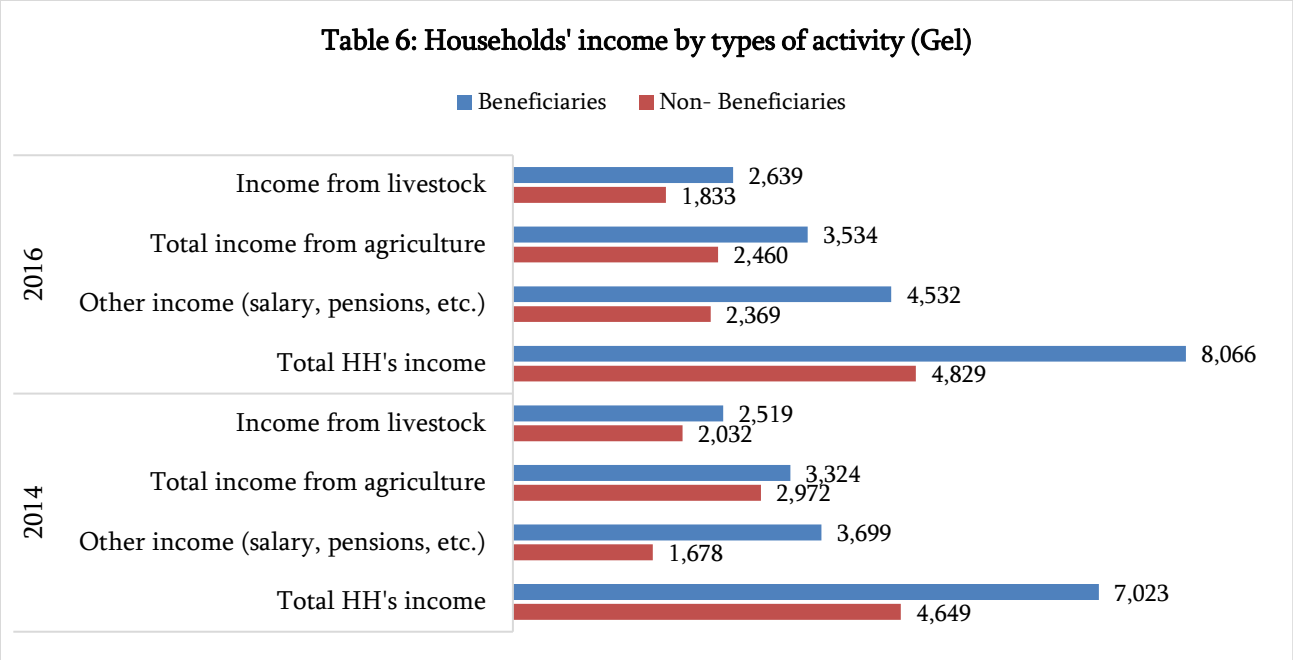


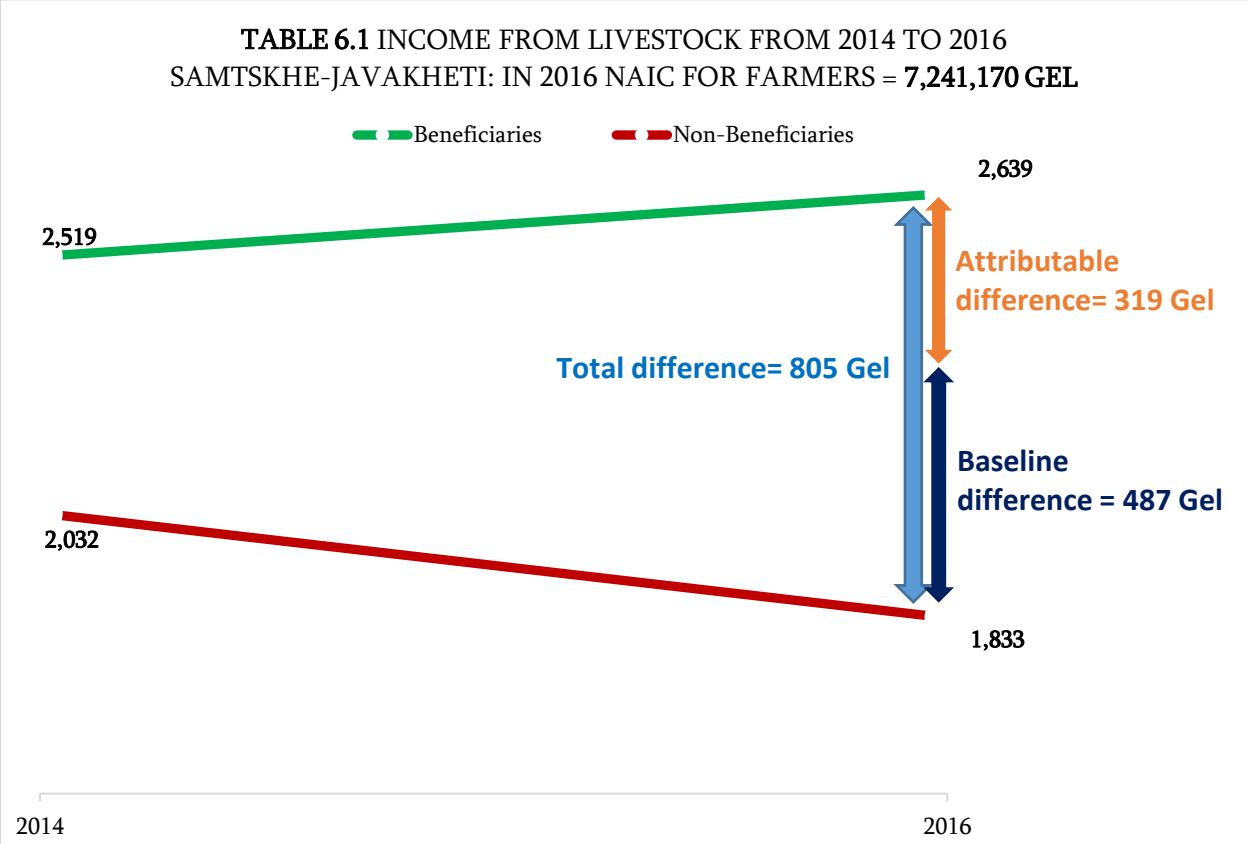
2.2 Net additional income generated by the programme

In 2016 in Samtskhe-Javakheti region the ALCP beneficiary farmers generated **7,241,170 Gel / 3,059,606 USD** net additional attributable income through the interventions facilitated in the active phase of the program. The impact assessment data presents a picture of a slight growth (4%) of incomes derived from livestock related activities in rural HH's in Samtskhe-Javakheti)[10] compared to the same indicator in 2014 (See table 6). Though it is notable that for those HHs who used program facilitated services income from livestock related activities increased by 5% while for those who did not (non-beneficiaries) the same value fell by 10%. This difference is the monetary benefit of the beneficiaries, which in 2016 amounted **7,241,170 Gel / 3,059,606 USD** net additional attributable income (See table 6.1).

[9] The figure is calculated by taking an average of combined values from each separate intervention

[10] So far, National Statistics Office of Georgia does not have updated actual data regarding the household's income from livestock in Kvemo Kartli in 2016. So, as soon as the GeoStat data is available, it will be triangulated with the impact assessment data.





In total, in 2015 and 2016 net additional income for beneficiary households amounted **8,661,620** Gel **/ 3,685,311** USD. Also, the programme generated **792,884** Gel / **341,992** USD NAIC for indirect beneficiaries (Users of crowding in entities), **1,685,516** Gel / **727,008** USD for the clients / supported

entities and **571,455** Gel / **246,484** USD for the employees through the interventions facilitated in the active phase of the program[11].

In **48%** of the households women are managing the household budget independently (10%) or together with other households members (38%). Furthermore, in **77%** of the households women are involved in decision making process regarding the household's purchases and in **67%** of the households women do buy the items / services independently or together with other households members.

2.3 Sustainability of the Results

Business profitability -The aggregated NAIC/profit for the programme clients comprises 4,775,063 Gel/ **2,421,767** USD. But the return on investment, profitability of the businesses and forecasts vary from sector to sector. Table 11 below displays the profitability and returns on the investments generated by the service providers:

Table 11: Description of the Effectiveness of Interventions for Each Sector

		Veterinary	Breeding	Information	Nutrition (Machinery)	Meat sector	Dairy sector
By the end of the project	Clients' ROI - to date	52%	244%	---[12]	313%	324%	-9%
	Sustainability Index	95%	41%	59%	53%	51%	79%

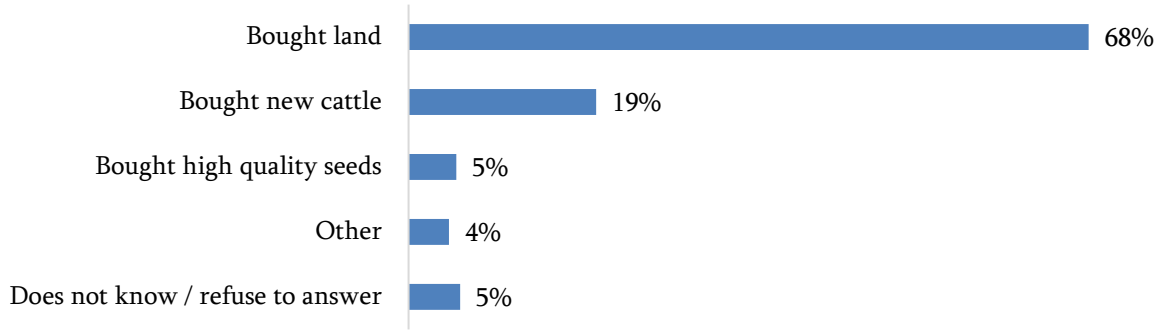
Business model Replicability (Systemic Changes) - ***Crowding in***: **36** entities have copied the intervention model or part of the intervention model and have entered the market system at the service provider level. These entities are reaching up to 23,044 farming HH's and resulted in **966,359 Gel / USD 437,151 USD** NAIC for farmers.

Changes in the amount of money invested in livestock sector and in a number of animals possessed by farmers – Based on the impact assessment data 59% of Samtskhe-Javakheti rural household population thought positively about the changes occurred in the agriculture during the last 2 years and almost all of them (56%) have made an investment because of this reason mostly in the form of buying a land, cattle, improved seeds, etc. (See table 11.1)

[11] Not fully attributable to the program

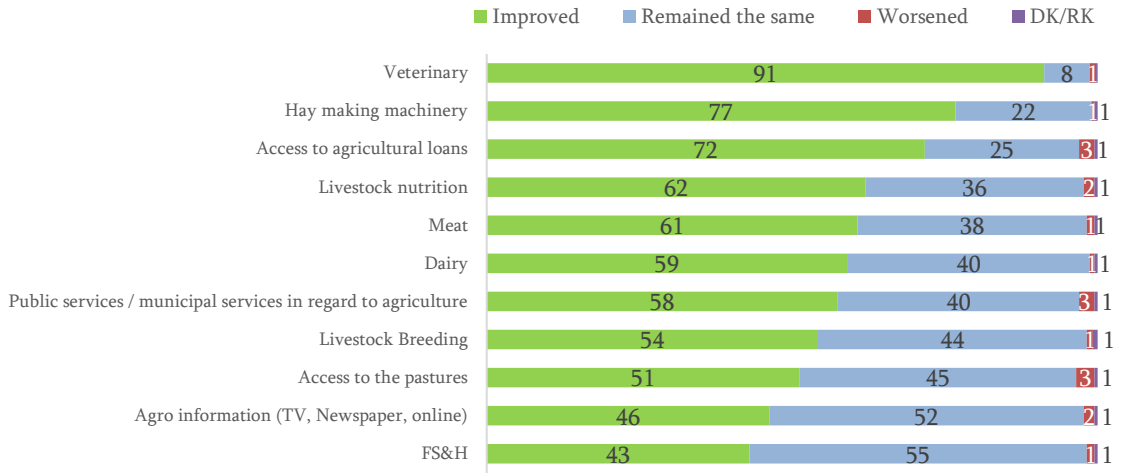
[12] The programme do not calculate separate NAIC for information related interventions, however, impact, if any, is aggregated in the total NAIC measured through the impact assessments.

Table 11.1: % of Rural HHs who made investments in agriculture during last 2 years (out of those who invested)



The positive attitudes can also be observed among rural households who were asked to comment and compare the general situation concerning agricultural spheres within their municipalities from 2011 to 2016.

Table 14: Farmers attitudes towards the changes in the following agriculture spheres from 2011 to 2016 (%) out of whole sample



Although, according to the Impact assessment data there were no meaningful changes in the number of cattle possessed in the programme area when comparing 2014- 2016 year figures. Program beneficiary household owned on average 7 cattle, while non beneficiary household 4 in 2016.

A single program beneficiary household cultivated on average 1,4 Ha of land annually (highland 37%, lowland 63%) in 2014 and 2016 years which is twice more than the area used by single non beneficiary for the same purpose (0.7 Ha, 15% - Highland/ 85% - Lowland) in a similar time period. It can be observed, that hay produced in highlands has a considerably bigger share (within total) among beneficiary farmers compared to non- beneficiaries. According to different sources of information tractor drawn implements for producing hay owned by program clients operate better in highlands

compared to the machinery implements owned by other operators or state provided services (which tend to be more compatible to work in lowlands rather than mountainous areas) [13].

Table 12 (Average out of the total sample)	2016		2014		Difference (2016-2014)	
	Beneficiaries	Non-Beneficiaries	Beneficiaries	Non-Beneficiaries	Beneficiaries	Non-Beneficiaries
Cow	3.6	2.2	3.9	2.2	-0.3	0.1
Adult Cattle (bulls, buffaloes, horse, donk, etc.)	0.6	0.3	0.5	0.2	0.1	0.0
Calves (bullocks and heifers)	2.4	1.8	2.8	1.6	-0.4	0.1
Sheep	3.2	3.0	3.2	1.7	0.0	1.3
Goat	0.1	0.1	0.1	0.1	0.0	0.1
Bee colonies	0.6	1.7	0.5	2.1	0.1	-0.4
Total number of animals	**10.5**	**9.1**	**10.9**	**7.9**	**-0.4**	**1.2**
TABLE 13 (Average out of the total sample)	2016		2014		Difference (2016-2014)	
	Beneficiaries	Non-Beneficiaries	Beneficiaries	Non-Beneficiaries	Beneficiaries	Non-Beneficiaries
Highland	**0.5**	**0.1**	**0.5**	**0.1**	0.0	0.0
Lowland	**0.9**	**0.6**	**0.9**	**0.6**	0.0	0.0
Total hectares of land cultivated for Hay	**1.4**	**0.7**	**1.4**	**0.7**	**0.0**	**0.0**

2.4 The Effect of the Systemic Approach

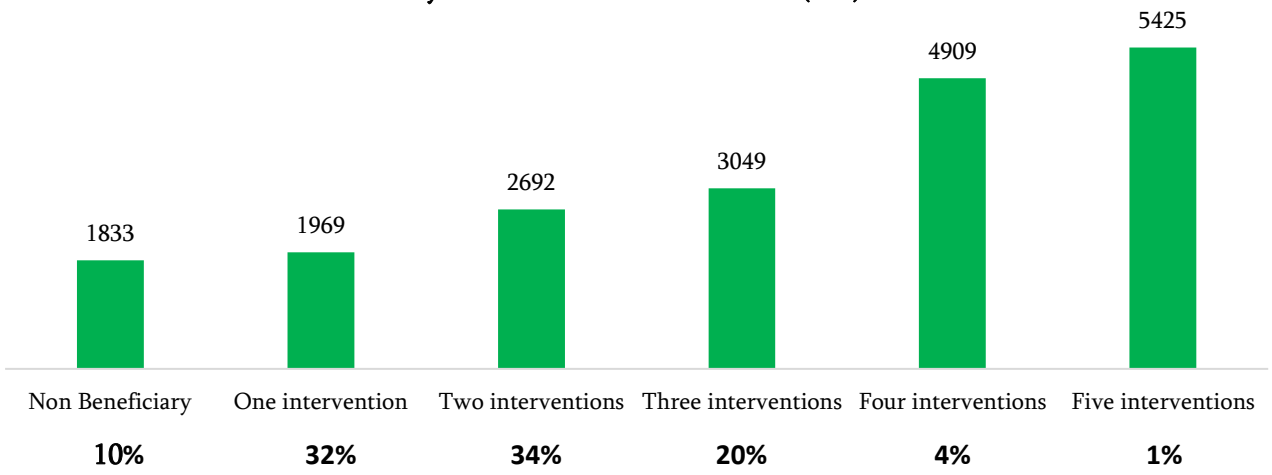
The structure of the programme is built in a way to generate poverty alleviation as the result of the market-system changes brought through three different systemic channels, each impacting and contributing to the programme goal differently, and the synergy of these outcomes reinforces the effects of each intervention. However, an implementation approach used by the programme in Samtskhe-Javakheti was different from Alliances KK which oriented on optimizing synergies between the three outcomes. (e.g.). Interventions in KK were intentionally clustered to produce synergy, i.e. supporting functions i.e. inputs; veterinary, breeding, nutrition, and information were made available to villages supplying milk to a factory as were governance related activities.

The Impact Assessment data shows that there is a statistically significant positive linear correlation between the number of interventions used and annual income from program related activities in 2016 as when one variable increases another also tends to increase. Though, the strength of correlation between these variables is weak[14]; Only 4% variation of annual (program) income is explained by number of interventions used (See table 15). In other words, the chance that e.g. number of interventions used influences annual program income (or vice versa) of a household is rather low.

[13] Sample Mini Survey on Machinery conducted by the program in SJ in 2016. The survey also presents results of comparison of services provided by program beneficiaries, other machinery owners and state assessed by rural household farmers of Samtskhe-Javakheti.

[14] $r=0.193$; $p<0.01$

Table 15: Average annual HH income from livestock related activities by number of intervention used (Gel)



SECTION 3: PROGRAMME ACHIEVEMENTS TOWARDS OUTCOMES – OUTCOME 1

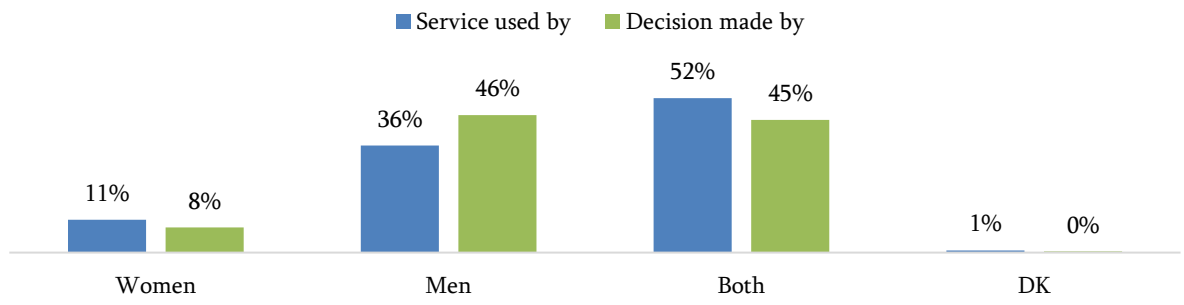
3.1 OUTCOME 1: *Increased outreach, information dissemination and quality of target services to SSLP's; increasing access and enabling SSLP's to make informed decisions on animal health, breeding and nutrition*

Outcome 1 has addressed the main constraints in supporting functions to the livestock sector (veterinary, breeding, nutrition, information and access to finance); which forms the constraints to the delivery of services and inputs to core market players for cattle, meat and dairy production.

Outcome 1 reached the largest scale. It covered 81% of the target households and overlapped 88% of Outcome 2 / Outcome 3 beneficiaries.

In 52% of the Outcome 1 beneficiary households, women and men use Outcome 1 services together and decisions over use of the services are made jointly in slightly less instances (in 48% HHs). However, in terms of using services or making decisions over use of the services individually in households such cases are much less common among women compared to men. For further details, see the table 16 below:

Table 16: Usage and Decision Making Relevant to the Services by Gender (% out of the outcome 1 beneficiaries)

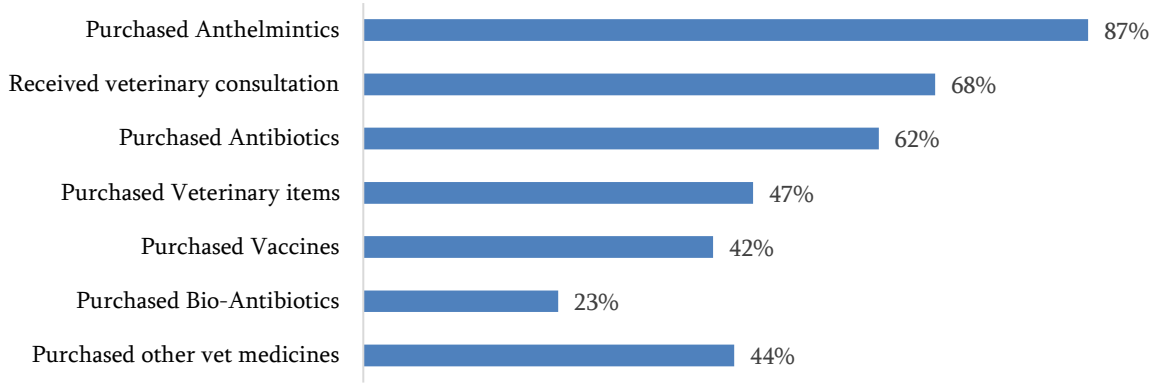


OUTPUT 1 1: *Facilitated improvements to business practices and outreach of animal health service & input providers to access wider SSLP markets with affordable, appropriate and quality products*

Alliances SJ started cooperation with ROKI Ltd, a service provider already at the national level since ROKI Ltd had proved a successful partnership with Alliances KK. Alliances SJ Identified 12 veterinary pharmacies in the main municipal towns and rural areas of the region to facilitate links between ROKI and the vet pharmacies to scale up and expand the outreach of the veterinary pharmacies and achieve more impact.

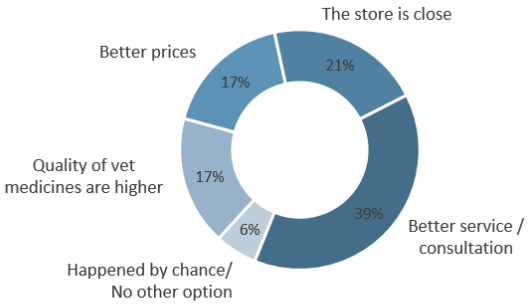
100% of farmers have access to the programme facilitated services within their communities and 77% (19,280 HHs) of the target households use the services. Farmers get different kind of services in the vet pharmacies: In 2016 most often users visited vet pharmacies for purchasing Anthelmintic (87%) using veterinary consultation services (88%) buying antibiotics (62%) (See table 17).

Table 17: Vet pharmacies' services used by farmers in 2016 (%)



In 71% of the households the vet service is used by women independently or together with other household members. Farmers positively evaluate the vet pharmacies and nearly all of them (99%) of them mentioned that they will use the service in future as well. Among the reasons of choosing the programme facilitated service, farmers most often mentioned that these vet pharmacies provide better service/ consultation (39%), while the least of the respondents told that they used the vet store by chance (See table 17.1).

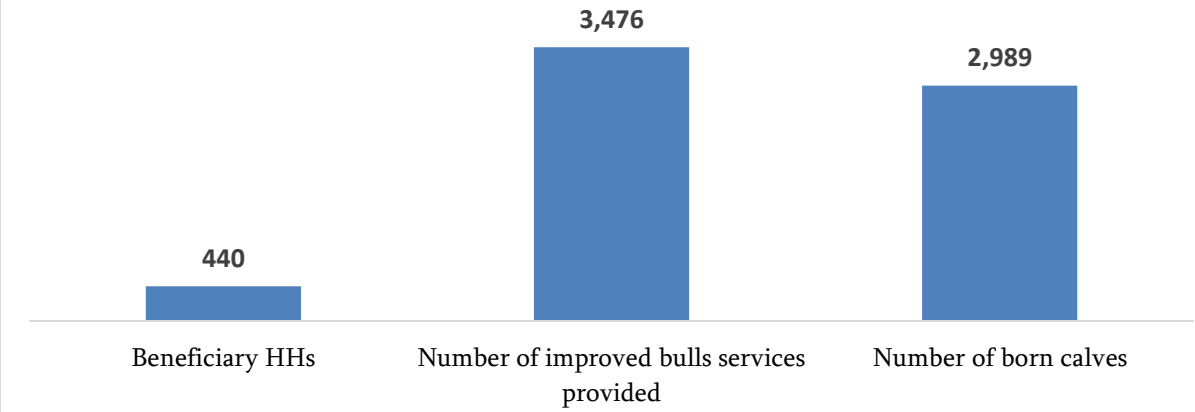
Table 17.1: Reasons of using Roki vet pharmacies



3.3 OUTPUT 12: *Facilitated improvements to business practices and outreach of livestock breeding service providers to access wider SSLP markets with affordable & appropriate products*

The programme started replacing local bulls with improved ones through providing co-investment in the purchase of improved bulls. The 53 improved bull owners sent the bulls to a community herd and thus facilitated other farmers' access to the improved bull service.
2% (440 HHs) of farmers in the region used the service, however the actual impact of the intervention is higher when we look the number of improved breed calves born: On average one household inseminated 7 cattle, which means that improved bulls inseminated around 3,476 cows and as the result of it 2,989 calves were born (See table 18).

Table 18: The impact of the bull replacement intervention



The programme conducted a survey[15] to study the benefits of the improved breed calves/ cattle which showed that compared to the local breed cattle, the improved ones have better live weight and milk yield.

The survey findings also revealed a tendency based on which- improved bull owners tend to successfully use an opportunity of enhancing genetics of their own cattle as well; And in settings when a farmer household owns large number of livestock (e.g. more than 10 cattle) improving cattle breed is more practical activity and has bigger economic effects (higher cattle weight, better milk yield) which is less visible among families who keep few number of animals (not more than 3 heads of cattle).

Breeding is predominantly a male dominated sphere and only in 20% of the households do women use the service mostly among other household members.

[15] Sample Mini Survey – Improved Bulls in Samtskhe-Javakheti, 2016

3.4 OUTPUT 13: *Facilitated improvements to business practices and outreach of nutritional input & service providers to access wider SSLP markets with affordable & appropriate products*

The programme conducted an intervention with individual entrepreneur G- Geo tech to facilitate farmers' access to brewers' grains, combined feed and hay in Samtskhe-Javakheti in 2012. Since the end of the terms of agreement (2014) with the client the program has stopped attributing the results of the intervention. The following information contains general trend in the region regarding usage of nutritional inputs namely combined feed.

More than half (62%) Samtskhe-Javakheti rural household population think that the general situation within their municipality/ region regarding the livestock nutrition has improved compared to 2008. However, only 5% (1,193) of rural households have used combined feed in their animal's nutrition.

The most demanded nutrition is combined feed and 57% of the users buy it on a regular basis: 17% use it for all year and 39% use it in winter. Out of those farmers who use combined feed for their animal's nutrition almost equal share use it to feed calves and milking cows - 41% and 39% respectively.

3.5 OUTPUT 14 *Facilitated improvements to access of SSLPs to appropriate information on agricultural practices, market prices, DRR and local self-government*

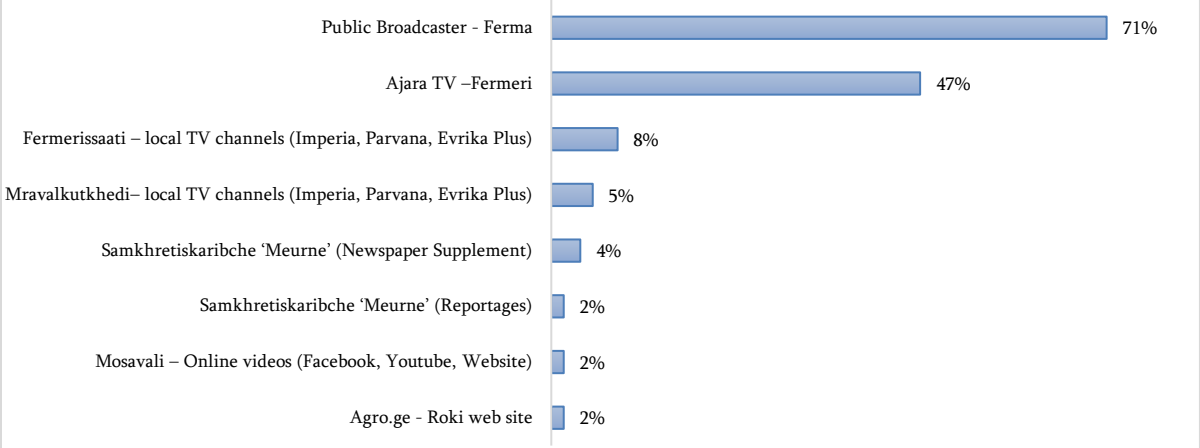
The programme has facilitated two informational channels local newspaper 'Samkhretis Karibche, local TV 'Imperia (TV 9) which have matured enough to have an impact on farmers. Before the interventions the only widespread form of receiving agri information in Samtskhe-Javakheti was through family, friends or relatives and there was no formal access to written information on farming such as new technologies, market prices, or available inputs and services. It is notable that other sources of agri-information which became accessible to the region such as 'I am Farmer' (from Adjara) and 'Ferma' (Georgian Public Broadcaster)[16] have also positively influenced on spreading useful information in agricultural filed among Samtskhe-Javakheti population.

In the rural households the main source of receiving information regarding agriculture is TV (51%) and family members / friends (51%). Though, ALCP supported programs/ videos have been viewed by thousands of viewers online on YouTube and Facebook across the whole country, it has not been yet sufficiently evident among rural areas of the program. Still, it is the third mostly used agri source along with newspapers in rural households of SJ region and its scale is expected to rise in parallel with increase of access to the internet in the region. From 2012 to present the number of rural households with internet access in SJ has increased from 7% to 33%.

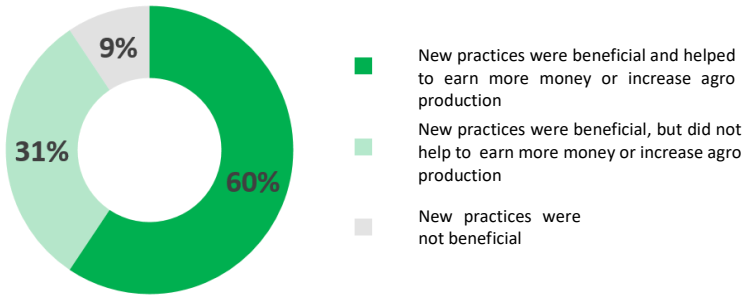
So far, in Samtskhe-Javakheti 48% (12,058 HHs) of the target households get agro information from ALCP supported entities. Majority of farmers watch Agro programme 'Ferma' on the Public broadcaster and 'Fermeri' on Adjara TV (See table 20).

[16] The mentioned sources also produced agricultural content supported by ALCP program

Table 20: % of farmers get information from ALCP supported media outlets (out of beneficiary farmers)



Its notable that 19% (2,336 HH) of beneficiaries have adopted new practices in their farming business after watching or reading agro information and more than half of this group reported that new practices were beneficial and helped them to earn more money or increase agro production.



In 75% of beneficiary households, women read / watch the agricultural information independently or together with other household members.

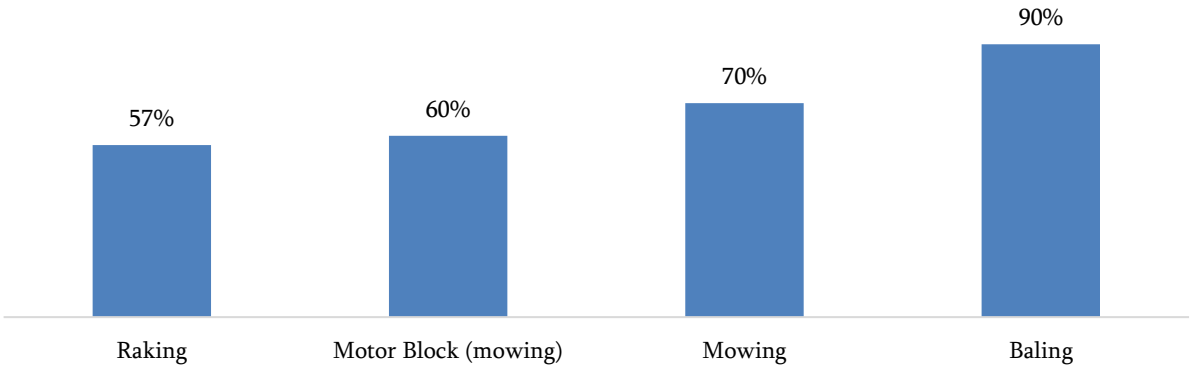
It is worth mentioning that majority of information beneficiaries are ethnically Georgian (87%).

3.6 OUTPUT 1.5 *Facilitated improvements to access to financial services for Dairy & Meat value-chain SMEs & SSLPs*

The intervention model was designed to encourage the local machinery dealer IE "David Lomidze" to improve the sales and outreach of machinery implements (mowers, rakes, balers) through the program subsidized price (20-50% discount) in Akhaltsikhe, Adigeni and Aspindza and later (during 2nd phase of the program) in Akhalkalaki and Ninotsminda municipalities. So far, 185 machinery operators were co-financed by the programme to buy the hay making implements.

During the program cycle 47% (11,744 HHs) of the rural households applied for at least one of the machinery services. Among beneficiaries, the most frequently used machinery services tend to be baling (90%) (See table 21).

Table 21: % of machinery beneficiaries by type of the service (out of beneficiary farmers)



When asked about the reasons of using different tractor drawn implements provided by program financed clients the two most common responses have been identified: 1. *the quality of hay tends to be high*, i.e that hay processing is done quickly (short period of time) which ensures maintaining the nutritional value of hay; 2. *The process of serving faster* [compared to using services provided by other service providers] or doing the work manually (/with hired labor) which saves handful amount of time (and energy) of a farmer[17]; It is not unusual that, almost all of (98%) the beneficiary farmers mentioned that they would use the same service in future as well.
The hay making is predominantly a male dominated sphere with only in 5% of the households women tend to use the service together with other household members.

SECTION 4: PROGRAMME ACHIEVEMENTS TOWARDS OUTCOMES – OUTCOME 2

4.1 OUTCOME 2: *Market Access & Terms of Trade are made more advantageous for small-scale livestock producers*

Outcome 2 developed access to the **Core Market** for milk, meat and wool suppliers and worked with cross-cutting rules related to food-safety and hygiene.

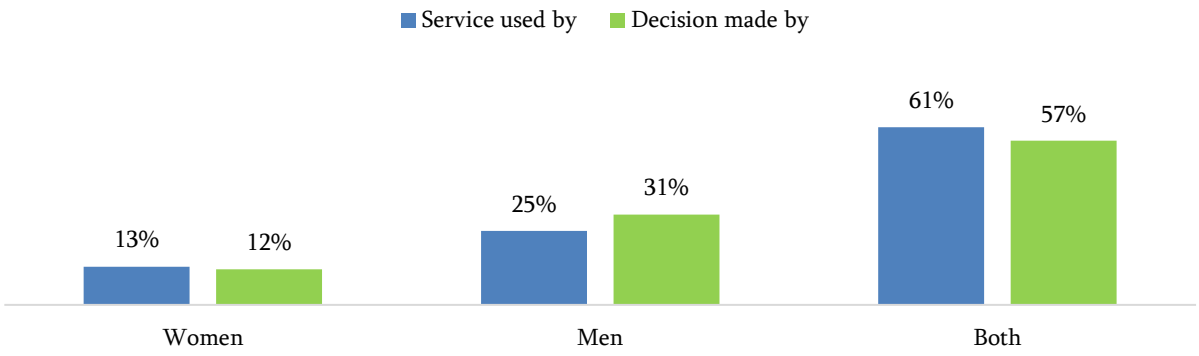
From 2011 to 2016 Outcome 2 covered 19% of the target households and includes more female dominated interventions compared to Outcome 1: On average, in 74% of the households women are engaged in the process of selling the agricultural products independently or together with other households member. Similarly, making decisions over use of the services tend to occur in almost same percentage of HHs (69%) (See table 22).

The dominant role of women in Outcome 2 intervention namely among milk processor intervention beneficiaries[18] can be more visibly observed in a case study (*Review of Long Term Systemic Outcomes in Dairy Sector in Samtskhe-Javakheti, Aspindza 2016)* conducted by the program.

[17] Doing the work manually or with help of hired labour/ neighbours may takes up to one week depending on type of work/ service to be done, with making hay stacks requiring most amount of time; based on data of *Impact Assessment SJ, 2014*
[18] Milk processor beneficiaries represent a major share (87%) among Outcome 2 intervention beneficiaries

Compared to the outcome 1, outcome 2 has lower scale but it is the core market for generating net additional income for farmers. The impact assessment is limited to disaggregated NAIC per outcome[19].

Table 22: Usage and Decision Making Relevant to the Services by Gender (% out of the outcome 2 beneficiaries)



4.2 OUTPUT 2 1: *Increased awareness & adherence of value-chain actors to food-safety, hygiene and management standards and best practices facilitated*

ALCP has established a new player for regional Food Safety and Hygiene, the Star Consultant Company to increase and improve awareness of the CPCs in Food Safety and Hygiene through the capacity building trainings (with CPCs and Farmers), later these entities trained the raw milk supplier women on Milking procedures and other FS & H topics. Also information on Food Safety requirements are spread through Newspapers, Media and Brochures / Leaflets.

The majority (66%) of the farmers are aware of the new food safety and hygiene regulations, out of which 33% (5,464 HHs) got information from the ALCP supported interventions: 6% (1,005 HHs) from the trainings & from cheese factories and 27% (4,459 HHs) from ALCP supported media outlets.

The intervention is mainly targeting women, as they are mostly responsible for daily milking process and they take care of cattle. The impact assessment data shows that 8,754 out of those with increased awareness on standards are women, which is almost 1k more than the number of males with the same case.

Most of the farmers feel confident regarding the FS&H standards and 59% of the farmers mentioned that it is easy to follow new regulations. Furthermore, those farmers who know about the FS& H standards and use them when milking cattle all of them equally apply the information during treating cattle, milking cows, storing the milk, preparing the dairy products and transporting milk or cheese.

Lastly, the ALCP financed National Food Agency to register farmers' cattle into the data base. So, far 97% of the rural households have already registered their cattle.

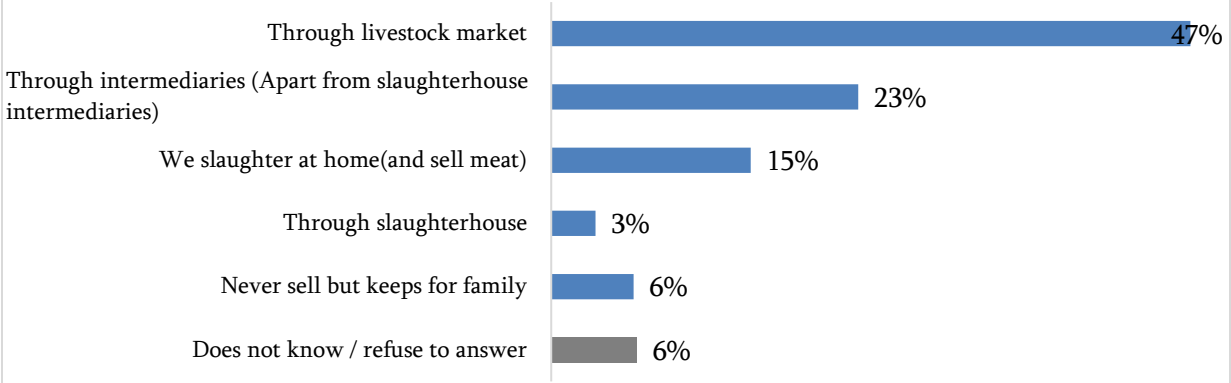
[19] Because of the huge overlap rate: 87% of outcome 2 beneficiaries used outcome 1 interventions as well.

4.3 OUTPUT 2 2: *Increased volume and value of trade and efficient and cost-effective access to meat products for intermediaries and processors from SSLPs facilitated – Meat Sector*

The Meat market is one of the most important and hard / complicated fields of programme impact. The meat interventions itself have indirect impact on farmers, as they (slaughterhouses) serve farmers through intermediaries. However, the slaughterhouses assist farmers to have regular market for selling their cattle, to save time and have access to cash. The programme financed two slaughterhouses and a Livestock Market in Samtskhe-Javakheti region.

So far, 3% (703 HHs) of the target households reported that they use programme facilitated services. while majority of the farmers tend to sell/ slaughter their cattle through livestock market (See table 24).

Table 24: The ways farmers sell / slaughter their livestock (%)



The slaughterhouse services are used solely by men; however, in majority of the cases women tend to manage the money generated by selling the cattle.

The qualitative data[20] shows that slaughterhouse intermediaries have better services, prices and more reliable scale measurement as well. The farmers complained that other intermediaries estimate the weight of the cattle by sighting (visual observation) and use to cheat the actual weight. Whereas, ALCP supported slaughterhouses tend to weight the cattle/ meat accurately and almost all of the surveyed beneficiaries said that they would use the service in future.

4.4 OUTPUT 2 2: *Increased volume and value of trade and efficient and cost-effective access to dairy products for intermediaries and processors from SSLPs facilitated – Dairy Sector*

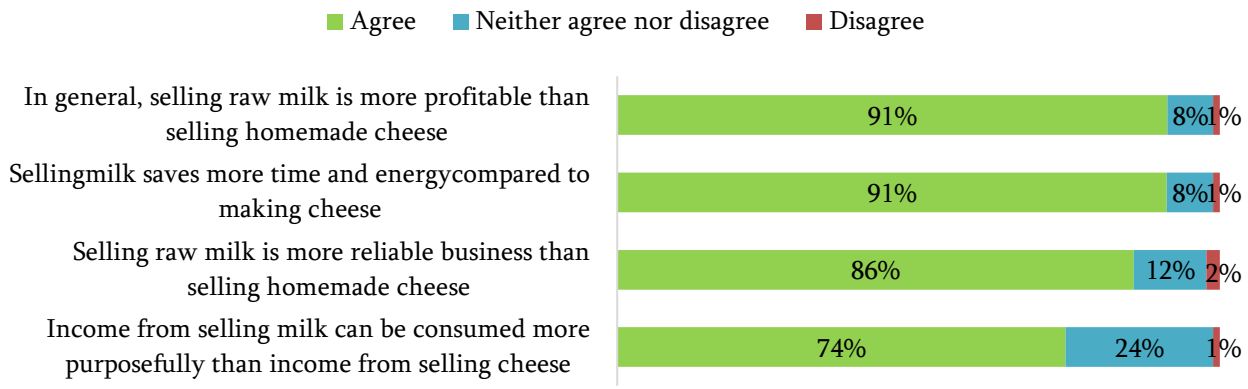
The dairy market is one of the most important fields of programme impact. Supporting its development intended to create conditions for considerable expansion in production and scaling up of dairy enterprises while linking more SSLP's to a secure income.

[20] The information is based on the qualitative data from the studies conducted by ALCP KK program.

The dairy intervention was a catalyst of change of behavior among dairy producer farmers from switching from a less profitable and more energy/ time consuming activity of making/ selling cheese[21]. Further, it enabled the beneficiaries to translate into monetary terms the benefits generated from other interventions like improved nutrition, breeding services and food safety and hygiene. On the other hand, regular milk supply has enabled dairy enterprises to increase their capacity of production, and incentivized them to make further investments to expand, modernize, improve their operations, comply to the various rules and regulations in the field, etc.

The programme has financially assisted and provided consultancies (business consultancy, FS& Hygiene and BEAT) to 20 local milk processors. Currently, 16 of them are working and show the resilience to market fluctuations. According to the Impact Assessment data 18% (4,396 HHs) of farmers have used milk processor's service. Those who sold raw milk to milk processors 98% of suppliers reported that they are going to use the service in the future as well; Which, is not uncommon as the farmers from the same group have found the activity beneficial in different ways, e.g profitability and reliability of the selling raw milk, compared to selling homemade cheese. The rest of the benefits can be seen below in table 25.

Table 25: Farmers' evaluation of the benefits of selling raw milk (% out of the milk supplier group)



Also, among the practices of consuming raw milk by beneficiary households selling raw milk holds the highest share 70%, 18% is kept for home consumption and 12% - is used for making/ selling cheese.

The milk processors contribute to the women's economic empowerment as well. In 63% of the households women are controlling the money (Independently or together with other HH members) generated by selling raw milk. As previously mentioned the case study (*Review of Long Term Systemic Outcomes in Dairy Sector in Samtskhe-Javakheti, Aspindza 2016)* conducted by the program showed that women tend to be fully involved in the business of selling raw milk including the stages of agency over revenue because of their direct sale of milk to processors.

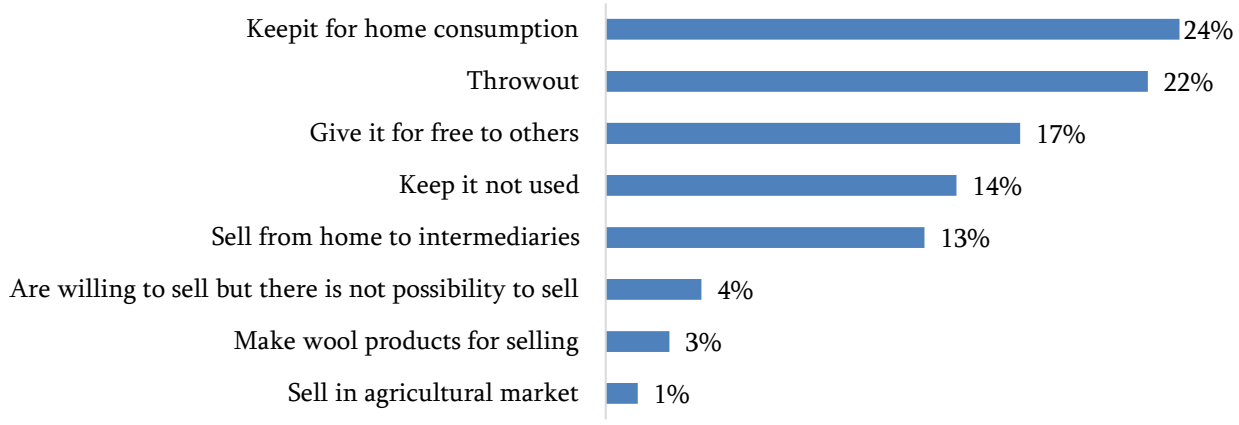
[21] Review of Long Term Systemic Outcomes in Dairy Sector in Samtskhe-Javakheti, Aspindza 2016

4.4 OUTPUT 2 2: *Increased volume and value of trade and efficient and cost-effective access to wool products for intermediaries and processors from SSLPs facilitated – Wool section*

The wool sector is one of the sectors of programme impact. It was damaged from the time of the fall of Soviet Union. But nowadays it is showing some positive signs of development, and the demand on Georgian wool started to gradually increase. The wool interventions are offering and opening the wool market for sheep owner farmers, which was closed and limited for years. The export of wool increasing significantly day by day opens the new opportunities for farmers to sell the wool in a meaningful price for them. Considering the trend and also already existing practice of Kvemo Kartli programs of doing wool interventions, ALCP Samtskhe-Javakheti program piloted its first wool intervention in the region by the end of 2015.

The impact assessment showed that the number of sheep per rural household in 2016 was 17, a little smaller compared to the same value for 2014. However, number of farmers who own sheep was 3% higher in 2016 (19%) than in 2014 (16%). It is notable that only 17% of the sheep owners sell the wool, while for 39% of households it is practically a waste (either throw or give it away for free), and 24% keep wool for home consumption (See table 26).

Table 26: Farmers use the wool
(% out of the sheep owners)



SECTION 5: PROGRAMME ACHIEVEMENTS TOWARDS OUTCOMES – OUTCOME 3

5.1 GENDER OVERT INTERVENTION: WOMEN'S ROOM[22]

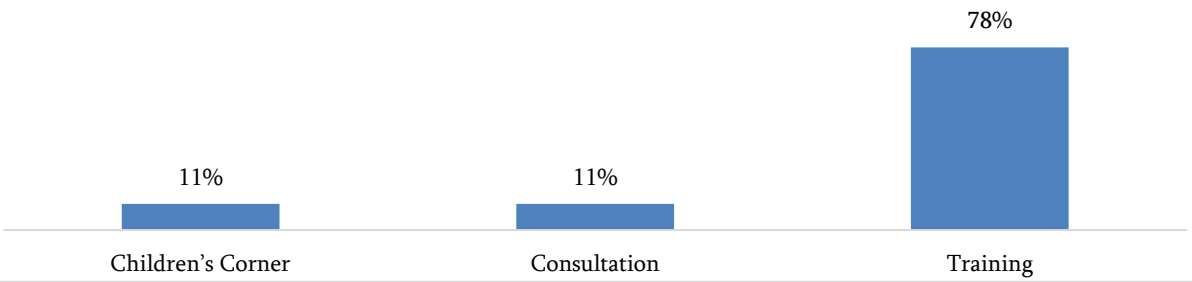
The New Municipal Service - Women's Rooms model was designed and applied by ALCP Kvemo Kartli Program (2011) which later in 2014 was replicated by another program "Broadening Horizons: Improved Choices for the professional and economic development of women and girls" implemented by ICCN in partnership with Mercy Corps Georgia, funded by USAID.

[22] The rest of the Outcome 3 interventions where not examined during the survey.

The Women's Room is a municipal service housed in local Self- Government buildings of each municipality of Samtskhe-Javakheti. It is a resource center and communal space which aims to help local population, especially women residing in rural areas, to access local government and its resources and encourage and increase women's participation in decision making.

So far, in Samtskhe-Javakheti 2% (578) of the rural households used the service, and Women do mostly use it. The farmers get information about the Women's Rooms from local representatives (75%) and family members / friends (25%). On average one beneficiary uses the Women's Rooms once during a year and most frequently he/ she attends trainings (78%) (See table 27).

Table 27: Most frequently used services in the Women's Rooms



In most of the cases (88%) beneficiaries think that Women's Rooms have improved access to the information related to their interests.

The visitors positively evaluate the Women's Room's service and all of the beneficiaries reported that they would use it in the future as well. Also, they expressed willingness to attend trainings or get consultation regarding project writing (86%), vocational education (14%).

The ALCP also trained village representatives and advocated women's involvement in the decision making process on the community level. The impact assessment data showed that 68% of the farmers know about the community meeting and 59% actually attended it in 2016. According to the official data provided by local government officials about Community meetings: in 2012 only 3% of women attended community meetings (baseline information), while in 2016 17% of the meeting participants were women, out of which 25% of them initiated/ suggested their own idea at the village meetings (which is 4% more compared to the same indicator in 2014 year).

ANNEX A: SURVEY & DATA COLLECTION PROCESS

The programme conducted a household survey in October 2016, in programme target area.
The programme has conducted the survey with help of local research organization Tbilisi Economic and Statistics Institution (TESI). The deliverables of TESI included:

- Translating the questionnaire into Russian and Azeri;
- Sampling;
- Requiting and partially training of the interviewers;
- Conducting and supervising of the interviews;
- Construction of the database, entering the data, cleaning the data base and providing the ready database;
- Ensuring the quality checks of the interviews, data entry and data cleaning process – as well providing report on these tasks;

Sampling Framework:	The sample framework for ALCP project is the list of voters from the electoral committee of 2015. • ***Sample size:*** 400 face-to-face interviews; • ***Sampling strategy:*** Multi Stage Cluster Sampling (MSCS) with preliminary stratification • ***Methodology to identifying respondents:*** Random walking - for identifying the households. The households are filtered, leaving out the families not leading the animal husbandry. Within the family most informed adult person (18+) in regard to animal husbandry is interviewed.
Rationale:	• ***Representative sampling*** If the population is large it becomes difficult and expensive to identify each sampling unit. In such cases the use of cluster sampling is more appropriate. Cluster sampling is based on the idea to divide the sampling population into clusters, and then to select elements within each cluster, using the SRS technique. In this case we do keep the possibility of each unites to be selected within the sample. In ALCP Clusters were formed on the basis of geographical proximity. Overall sample size was distributed between districts of Samtskhe-Javakheti in proportion to population with 18 and more age. Each district was divided in clusters according to the size of rural settlement. At the second stage, Primary Sampling Units (PSUs) – in this case villages - were sampled. The sampling strategy requires maximizing number of clusters and minimizing number of elements within cluster. Number of PSU's which should be selected in each strata will

	be defined by dividing number of interviews in these strata on 10. In each PSU 8-12 interviews were conducted. PSU's will be selected by using Probability Proportional to Size (PPS) method. On the third stage *Secondary Sampling Unit*s (SSUs) were designed which is household. In each selected PSU SSU's were selected by random walking method using step between households. *Final Sampling Unit* (FSU) was individual with 18 and more age, being informed about the issues of husbandry. Standard error for 90% confidence interval is 4.2%, which is permissible for regional studies.

VI. List of geographic locations covered by the assessment

Within the ALCP project all districts of Samtskhe-Javakheti region were covered.

VII. Key Research Tools: [e.g. Sample Survey and etc.]:

- Sample Survey,
- Structured questionnaire in Armenian, Russian and Georgian
- Cards for respondents.

VIII. Data Gathering and Quality Control:

- *Designing the questionnaire*

For designing questionnaire, the questionnaire of Impact Assessment Survey in Samtskhe-Javakheti region (2016) will be used.

- *Training for interviewers*

After finalizing the questionnaire and designing the survey sample, the interviewers will intensively be trained by supervisor and project coordinator, considering the general rules of interviewing process and sampling and specificity of the questionnaire, the protocol of the study, their responsibilities and types of sample.

- *Roles and responsibilities*

Interviewers were the local researchers, who cooperate with TESI for long time. In ALCP study there were three other people included: **Analyst**, who participates in the process of finalizing questionnaire and defining the sample design and cooperates with Mercy Corps for main issues. **Project director**, who is responsible for organizational and financial issues. **Supervisor**, who did the pre-test of research instrument, was included in the finalization process of the questionnaire. She works in Samtskhe-Javakheti region for long time and she is responsible for recruiting and supervising the local interviewers.

- *Dates for the field work* 01.10.2016-30.10.2016[23]

[23] Additional 2 weeks were needed for data entry and 2 weeks for cleaning & recoding and writing report.

- *The quality of the information gathering*

The quality of data gathering is ensured by the supervising process of the interviewers during fieldwork which is done by TESI supervisor, as well as the representatives of Mercy Corps. Furthermore, directly after the fieldwork TESI started field work quality control. TESI project coordinator trained an independent interviewer who is responsible for field control. It is exclusively her function, never mixing up with basic initial field-works.

For ALCP project 38 interviews went under the field control. Questionnaires that were checked had been selected randomly from the package of filled questionnaires, though the packages themselves were systemized in a way that almost every interviewer were back checked.

Field controller was trained according to the general and specific requirements of survey. She was aware what kind of errors had to be fixed and reported to the coordinator of the survey. The field work quality control did not expose serious problems that would cause the replacement of the interview.

- *The tendency of respondents to give 'desirable answers'*

Within the face-to-face interviews it is impossible to overcome the desirable answers as well as the influence of interviews completely. The desirable answers were avoided by the natural character of the questions within the questionnaire, by the natural manner of asking them to respondents, by the 'probing methods' used by the interviewers and by the controlling questions.

IX. Data Processing and Analysis:

- *Data entering*

During the fieldwork the statisticians of TESI develops an SPSS database, based on the questionnaire. Simultaneously the fieldwork (when approximately 50% of questionnaires are filled out) the data entry procedures starts. The semi-closed questions are coded and inserted into the SPSS data framework.

The technical assistant of TESI is responsible for coding and putting data into SPSS program. SPSS programme specialists (statisticians) cleans and processes the data.

For ensuring the quality of the data entry the random checking (comparing the database with the questionnaire) is done by SPSS specialist (statistician). Furthermore, the data checking encompasses three sub-processes:

- ✓ Data checking and error detection;
- ✓ Data validation;
- ✓ Error correction.

Survey data is processed and analyzed through SPSS programme, on the basis of different descriptive methods: distribution of frequencies, cross-tabulations.

B.6 Possible Limitations

The method has following limitations:

- Representativeness - the sample is representative for the programme area, but it cannot claim to show the statistical significant differences for sub clusters.
- Need of qualitative information – Some of the finding might need to be explained through the qualitative information. For example, the relationship between income and number of intervention used. For deeper analysis further qualitative researches is needed.
- Recall bias – respondents were asked to recall information retrospectively, however most of the data is triangulated and recall bias is minimalized.

B.7 The Key areas of the impact assessment research

The key aims of the analyses are:

- To report on changes attributable to the programme: Through the difference[24] in changes across affected and non-affected populations in 2016.
- To evaluate costs and benefits or the value for money: Through the attributable changes in target households and the programme clients' incomes and the aggregated social return on the programme investment.
- To assess the sustainability of the changes: Through the profitability of the business models, the business return on the private sector investment, systemic changes i.e. copying and crowding in and programme attributable changes in the rate of reinvestment in agriculture by farmers.
- To assess the synergistic effect of the systemic approach: Through capturing the effect of the synergy of different interventions and outcomes.

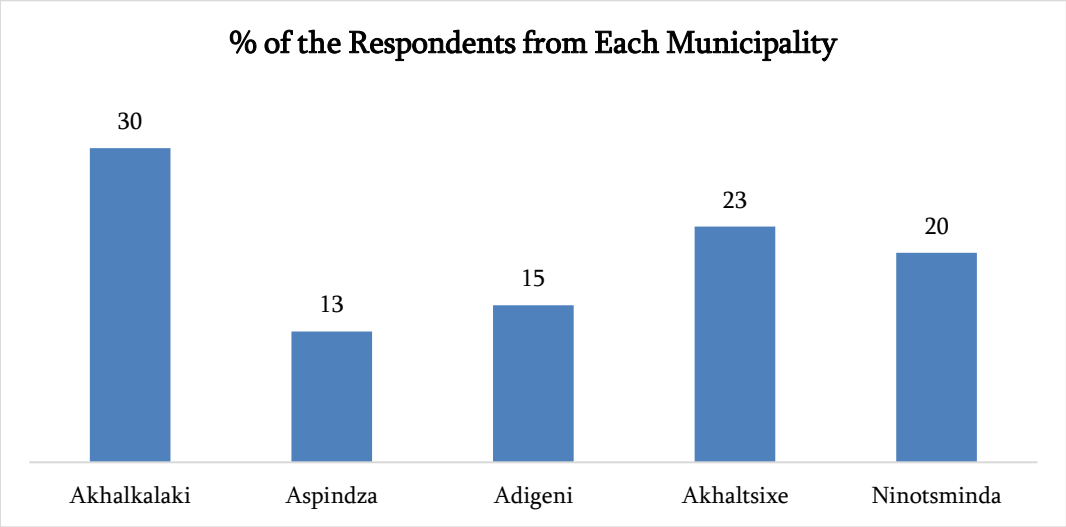
	Indicator	Definition
Outreach and scale	Availability of the intervention (available within the community)	# of communities covered by the intervention
	Access to the intervention	# of farming households with awareness and access to the intervention is within their or neighboring communities
	Usage of the services	# of faming households using the programme facilitated services.
	# of beneficiary households	# of faming households using the programme facilitated services, and generating positive income changes
Value for money – Farmers Benefits	Employment created	Number of full time job places generated by the programme clients due to the interventions
	Net (programme) attributable income changes NAIC for target beneficiaries	NAIC for target beneficiaries= Beneficiaries Agro - Income 2016 - Beneficiaries Agro - Income 2014 - (Non

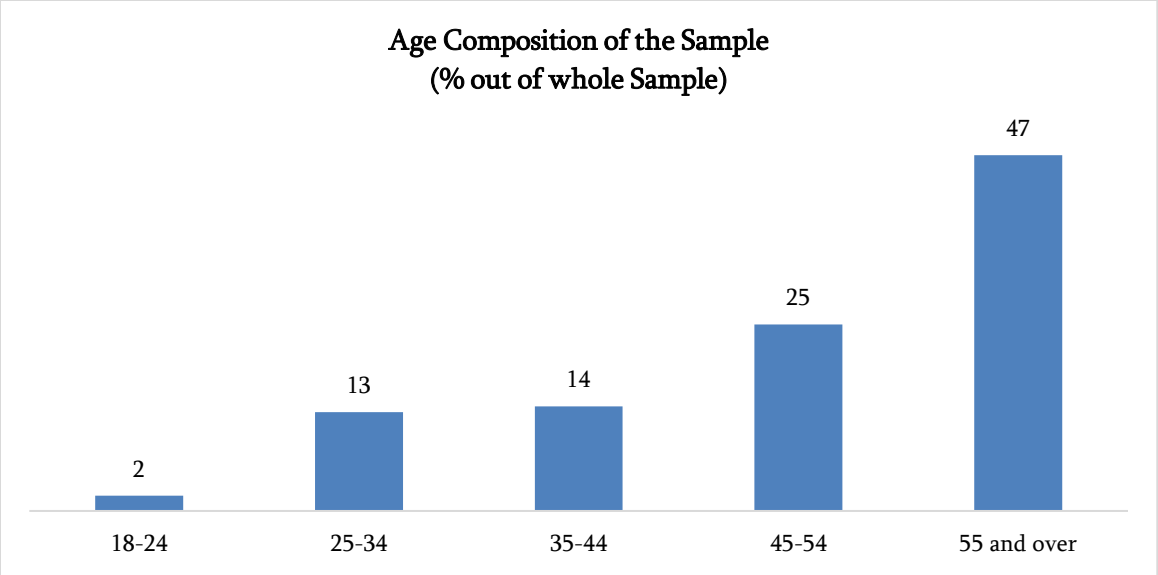
[24] Or negative like displacement in case they occur.

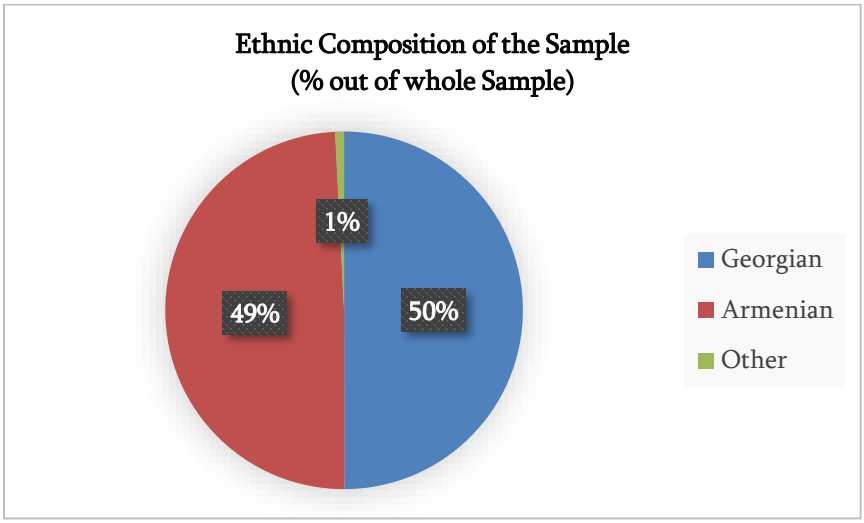
		Beneficiaries Agro - Income 2016 – Non Beneficiaries Agro - Income 2014) – inflation
	Aggregated social return on investment (SROI)	Farmers aggregated NAIC minus and over programme investment
Sustainability *(business/financial sustainability)*	Profitability of the businesses: Client's ROI	Clients NAIC minus and over clients investment
	Replicability of the business models	Number of copying and crowding in
Behavioral changes on market - Reinvestment in agriculture	Attributable changes in the amount of money invested in livestock sector by farmers	changes in the amount of money spent in agriculture by farmers, caused by the interventions
	Attributable changes in a number of animals possessed by farmers	changes in number of livestock possessed by target population caused by the interventions

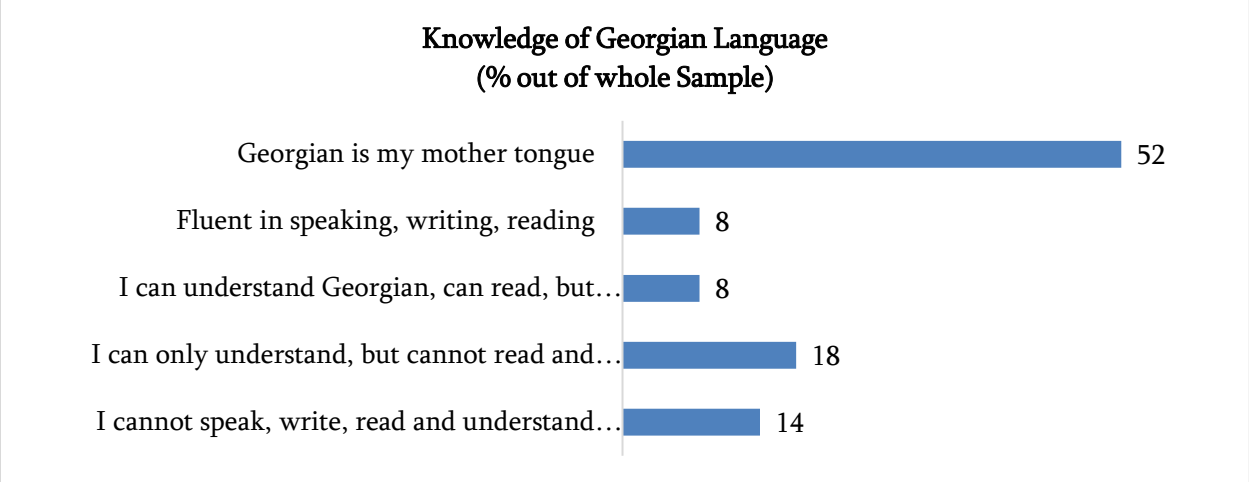
ANNEX B: PROFILES OF BENEFICIARIES

C.1 DEMOGRAPHIC CHARACTERISTICS:

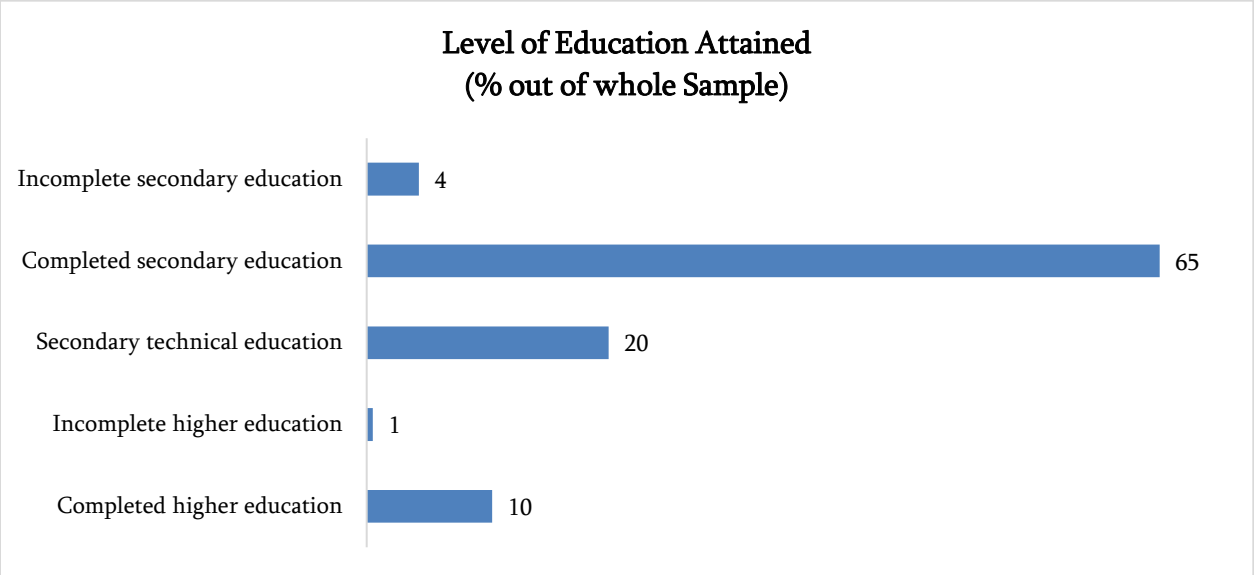


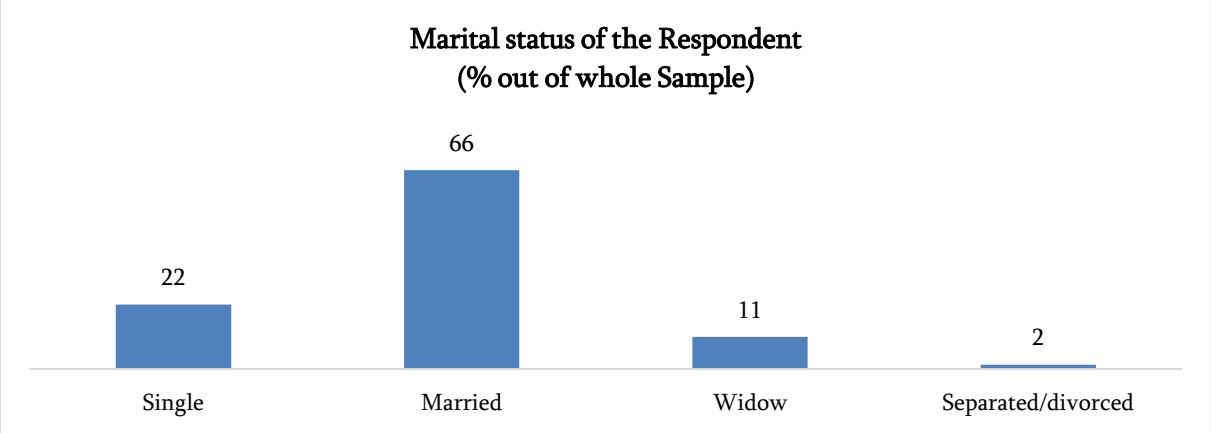

Age Composition of the Sample
(% out of whole Sample)
2
13
14
25
47
18-24
25-34
35-44
45-54
55 and over

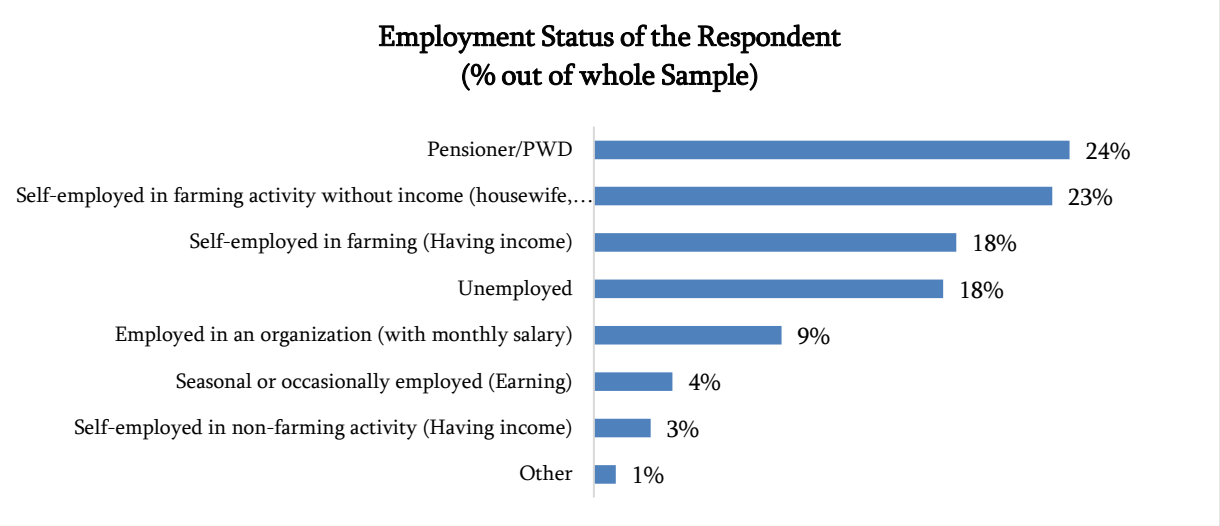

Ethnic Composition of the Sample
(% out of whole Sample)
1%
49%
50%
Georgian
Armenian
Other


Knowledge of Georgian Language
(% out of whole Sample)
Georgian is my mother tongue
52
Fluent in speaking, writing, reading
8
I can understand Georgian, can read, but…
8
I can only understand, but cannot read and…
18
I cannot speak, write, read and understand…
14

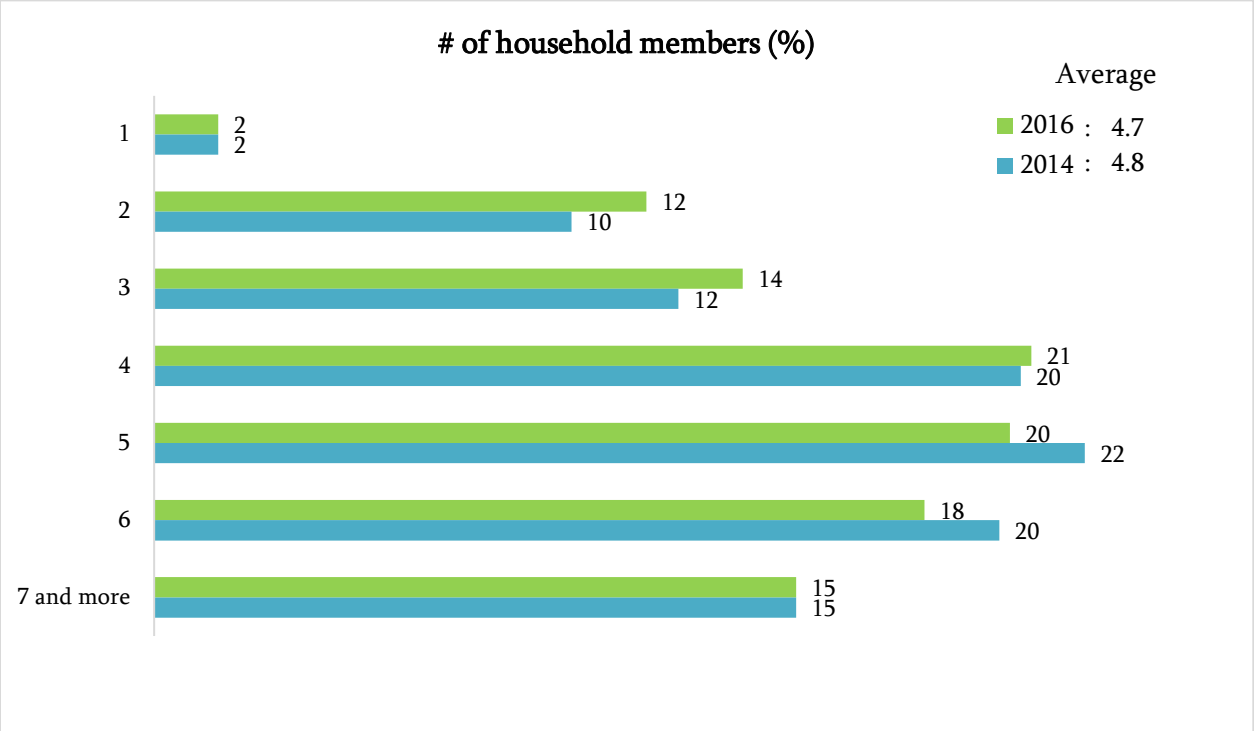
C.2 Respondents' Profiles:

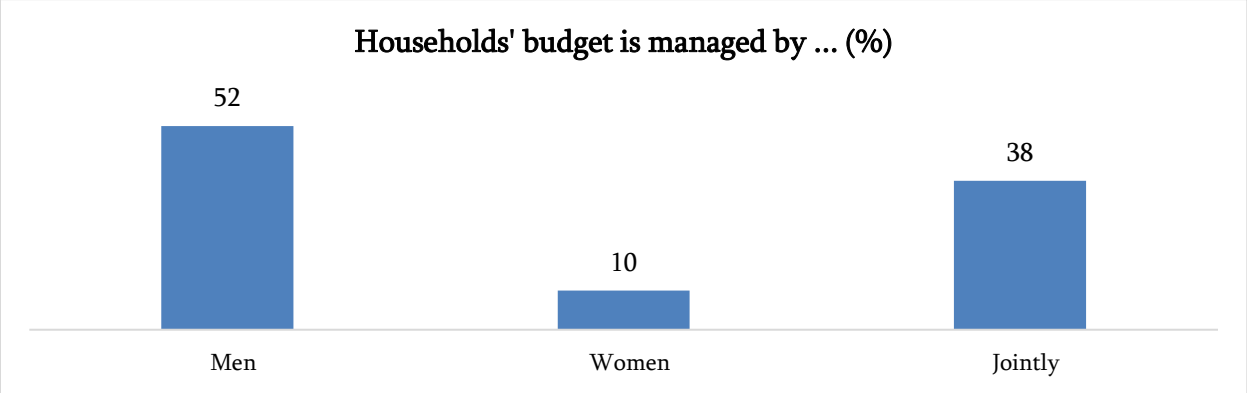






C.3 Households' Profiles:





ANNEX C: SUSTAINABILITY DASHBOARD INDICATOR DEFINITIONS

The sustainability index was assessed according to the following criteria:

Systemic changes - Systemic change can be broadly described as "alterations in the structures or dynamics of a market system leading to new patterns of behavior of market system actors" (such as in private sector, government, civil society, public policy level).

When rating an intervention in context of systemic changes, it measures its achievements in perspective of three key characteristics of systemic change- scale, sustainability and resilience which

all contribute to poverty alleviation and the transition to a durable market economy for the livestock sector.

Scale - Systemic changes benefit a large number of people not directly involved in the original intervention e.g. farmers in other areas who are also seeing improved access from programme clients and other suppliers

Sustainability- Systemic changes continue long after a programme ends; market changes are likely to continue but they will expand, reaching greater scale

Resilience -Market players adapt to changing contexts to continue to deliver pro-poor growth. e.g. input suppliers/ clients diversify its operations, expand distribution across the country and region, reach credibility to lobby the government, and make them accountable to be responsive to their concerns.

NAIC – Net Attributable income change

Measured based on the extent of Net Attributable Income Change generated by the programme beneficiaries from the particular intervention

Innovation - The intervention is assessed in context of how innovative it was in itself including those further innovations that developed as the intervention developed over time. E.g. technological innovations, add on's to the original facilitation, network and linkage development from newly created platforms for new products.