

## **CASE STUDY: Review of Long Term Systemic Outcomes in Dairy Sector in Samtskhe- Javakheti**

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## Introduction

ALCP program in Samtskhe- Javakheti has decided to conduct a case study to further its knowledge about the development going on in the region after the end of program's active phase and explore one of its key components 'Access to the market'. Particularly the study tried to study changes and processes taking place in dairy sector and supporting functions related to it.

The survey has used outcome harvesting tool <sup>1</sup>and its particular techniques as a method of the study. It is notable that prior to this survey a full trial of the OH tool has taken place in town Tsalka organized by the ALCP program KK office.

By applying outcome harvesting methods the survey intended to understand the range of outcomes to which it's programming may have contributed and in addition examine the degree to which identified outcomes could be systemic.

Unlike Tsakla trial, the study made some modifications while using OH tool, omitting the substantiation part from outcome harvesting methodology. The given responses turned out to be mostly homogeneous among the respondents which gave the qualitative study sufficient credibility; while, leaving substantiation process made it possible to conduct a study in a much shorter time, which required less human and financial resources at the same time.

The key question of the study was:

*'How and to what extent has the quality of life of HH farmers and their behaviors changed as a result of improved access to dairy market and its supporting functions within their communities?'*

The following areas/ questions were further explored to find out the answers to the key question:

- Has the access to dairy market triggered HH farmers to employ better practices of dairy production<sup>2</sup>?
- How selling milk effected the families in socio-economic perspective?
- How has dairy production reflected on HH farmer's quality of life? (Free time and energy, additional economic activities, etc.)
- Unintended effects that may have resulted, at least in part, due improved dairy production at the household level

The case study was conducted in villages of Aspindza<sup>3</sup> region. The region is one of the oldest parts of the programme, being one of the original 3 municipalities the programme started working in 2008. Aspindza is relatively disadvantaged compared to other municipalities of the programme area who are closer to markets, have better infrastructure such as roads and have better natural

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<sup>1</sup> Annex section Methodology of the Survey gives more detailed information about the OH tool and also describes other attributes of how the survey has been conducted

<sup>2</sup> Using improved machinery and breeding services, veterinary and FS&H practices

<sup>3</sup> Selected villages were: Pia, Nakalakevi, Khertvisi, Gulsunda, Tmogvi, Kkhertvisi

conditions such as rainfall, pasture, larger land holding as and better access to pasture<sup>4</sup>. Thus it has been particularly interesting to observe developments going on in this area.

Those villages and respondents selected for this survey were those who in most cases produced and traded cheese and had no prior practice of selling raw milk until program supported dairy enterprises started collecting it from them.

Studying these sample of individuals would give better possibility to better understand the effects of mentioned transition, identify positive and negative (if any) sides of it, and possibly give some perspectives on its development in the future.

## Survey Overview

While looking at the overall picture number of positive processes and trends could be observed among surveyed milk producer farmers who switched from selling cheese to selling milk.

Many of the respondents own relatively large number of cattle mostly ranging from 10 to 30<sup>5</sup>; and in the instance of improved access to selling milk they seem motivated to further increase the number – of the milking cows in particular<sup>6</sup>. Typically, producing milk is perceived as a preferred means of activity over producing and selling cheese as it tends to be profitable in terms of saving costs and avoiding unexpected expenses. Furthermore, accumulated incomes from the weekly or monthly remuneration for the daily sale of milk offer milk producer families the option to use these funds to cover larger planned or foreseen expenditures like recurring taxes and tuition fees, to buy products and clothes rather than small ad hoc purchases, and also support other family members who live apart from them.

One of the main observed changes among milk producer families has been an improvement in quality of their (mostly women's) life; This was expressed in significant amount of saved time and energy from selling milk compared to making and trading cheese ; this was seen as an opportunity to employ one's resources in additional working or recreational activities. For example doing house chores, working in the garden, taking care of the domestic animals or socializing and resting.

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<sup>4</sup> Similarly to Aspidza, Adigeni municipality can be rated as one of the poorest in the region, with poorly developed infrastructure possibly because it is located on a far distance from other municipalities

<sup>5</sup> The figure includes all type of livestock: cows, bulls, heifers and calves

<sup>6</sup> Number of milking cows mentioned by survey respondents on average amounted 7, which shows a significant increase compared to the number of milking cows owned by dairy beneficiary households in 2008 (according to Impact Assessment conducted in SJ 2014)

## Findings

9 outcome areas (listed below) and 2 important findings were identified from the 30 interviews. Some of which were intended to occur as previously articulated in program documents (i.e. results chains) of dairy market system, while others were thought to be unforeseen, and could possibly be linked to ALCP's work in the dairy market system.

| <b>Outcome Areas</b>   | <b>Intended</b> | <b>Some areas not intended</b> | <b>Not intended</b> |
|--|-----------------|--------------------------------|---------------------|
| 1. Accessible free time for women dairy producers for recreation/additional working activities after transition to milk sales from cheese making | yes             |                                |                     |
| 2. Selling milk - more profitable business compared to making cheese   | yes             | yes                            |                     |
| 3. More business oriented farmers: Increase of livestock   | yes             |                                |                     |
| 4. (Other purposeful) Ways of using income from milk   | yes             | yes                            |                     |
| 5. Choosing livestock over other fields of agriculture   |                 |                                | yes                 |
| 6. Improved FS&H practice  | yes             |                                |                     |
| 7. Developed veterinary services and state support   | yes             |                                |                     |
| 8. Improvements in cattle nutrition  | yes             |                                |                     |
| 9. Empowering women's role in managing finances received from selling milk   | yes             |                                |                     |
| <b>Other important findings</b>  |                 |                                |                     |
| - Seasonality of selling milk  |                 |                                |                     |
| - Frequently raised issues   |                 |                                |                     |

### **1. Accessible free time for women dairy producers for recreation/additional working activities after transition to milk sales from cheese making**

Free time for recreation and /additional working activities indicates a perception among dairy producer individuals (mostly women) that the transition to milk sales from cheese making has made available additional daily free time for recreation (socializing, resting) or doing other working activities (house chores, working in the garden, etc.)

**Jenia**, from Tmogvi mentioned in the interview that selling milk made her work easier and the fact that daughter in law is employed at the restaurant is because of the time saved from selling milk - *'If we did not sell milk i.e. if we were still making and selling cheese, she would not be able to work'*, said Jenia.

While **Sonia**, a dairy producer from Khertvisi gave the following comment on benefits of selling milk – *'I think selling milk is better, because it saves my time and energy. I save about two hours [daily] ... and use it for beekeeping, raising bee families'*.

Indeed, in most cases, the respondents said that two hours were saved daily from milking activities instead of making cheese, though the time usually depended on amount of cows owned – more cattle the more time and energy spared. In some cases cheese producers had to take cheese to sell in the market what naturally required extra time/ energy from them.

**Omar**, from Pia touched the subject and noted *'...because the people of this village live far from center and market selling milk at place is more beneficial'*

As it can be noticed that there is an obvious link between ALCP and the mentioned positive changes (additional free time/ saved energy) created from transition to selling milk from making/selling cheese as the program strongly stimulated improvements in access to dairy markets for milk producer farmers.

### **2. Selling milk - more profitable business compared to making cheese**

The respondents mostly talked about selling milk as a more profitable and preferable activity compared to making/ selling cheese. This was mainly on the expense of their reduced production costs, and avoiding impractical / thoughtless expenditures (which was most typical behavior among person who received incomes in small amounts from selling cheese).

These are some of the examples explaining the mentioned statements:

- ***Saving the expenses connected to making and selling cheese***, which included the costs of pepsin, salt, and firewood, transporting cheese to the market and other associated admin/logistical expenses.

- **Money received from selling cheese is spent easily and meaninglessly** mainly because it is periodically generated in small amounts, unlike an accumulated regular income coming in lump sums from selling milk for example to cover expenses and taxes, buy products, invest in different agricultural activities and so on (Section 4 'Other purposeful Ways of using income from milk' reviews the topics in more details). Such settings allow for longer term planning and development for milk producer families rather than the day to day survival.

*'When I took cheese to sell it in the market I came across different [attractive] things, bought them [with the money earned from selling cheese] and nothing was left in my pockets'* - told **Mariam** from village Dzveli.

As it is common to keep cheese at home (before selling it), usually the families use it to treat guests and give it for free to them as a gift/ present. *'Now, when I sell milk I don't have a stock of cheese at home and therefore I am free from this expenses'*- told **Neli** a milk producer from Nakalakevi

**Natela**, from Nakalakevi stated - *'by selling milk a sum of money is accumulated and is not spent as a petty cash; it is like a (short term) deposit; I don't take it from milk collector for 2-3 months and then receive it in a full amount.*

Meanwhile, in the opinion of **Murman** from the same village pointed out that generally the income from selling milk could be accumulated together which created possibility to spent it more purposefully;

ALCP has played a significant role in supporting the changes in dairy sector which enabled dairy producer farmers to make transition from making/selling cheese to selling milk considering the lesser transaction costs of the latter. As for the other type of savings – 'impractical / thoughtless expenditures'- are of very specific character and therefore less possible to have been considered at the beginning of the program; therefore, possibility of similar causes to happen could be taken into account by other programs at the initial stages of their work.

### **3. More business oriented farmers: Increase of livestock**

*'After the factory started to consistently collect milk from household farmers big part of them bought (milking) livestock or increased its amount (by retaining the extra) to get more income from milk sales'* – noted **Mzia** from village Pia during the interview. She herself has used the earned money from selling milk to buy new cattle, change the breed of cattle and generally increase number of livestock in her family.

In fact, the most frequent answer on the question about *'how has the amount of milk you sell changed during these past years?'* has been positive, indicating a growth of number of milking cows with the aim to produce more milk and therefore increase profits. Hence, milk producer farmers are tending to think and act in a more businesslike and increase efficiency of their production by trying to improve practices of taking care of their cattle and feeding.

**Zurab, from** village Dzveli – *'Previously I had mainly 2 cows, after starting to sell milk I increased the amount to 5 cows to produce more milk. We [his family] reduced number of livestock we kept for meat because the prices on meat fell, but increased in case of milk'*

The ALCP program's link to increasing the amount of milking livestock among dairy producer farmers is quite solid, and has caused a knock on effect; the creation of an attractive environment for selling milk has increased motivation among farmers to grow the amount of cattle and therefore boost their profits from selling milk.

#### **4. (Other purposeful) Ways of using income from milk**

Accumulated incomes received consistently from selling milk have given dairy producers the means to use them for **basic family needs** or to **invest in different fields of agriculture**.

As already mentioned, the most commonly received income from selling milk was used for **basic family needs** such as food, groceries, home equipment, paying taxes, supporting family members (who live apart from the family in some cases) covering education costs for young members of the family, etc.

**Jenia** from Tmogvi has used the money earned from selling milk to finance her grandchild's tuition and to buy products flour, sugar, etc. needed for the family.

*'Nowadays my earnings [from selling milk] enable me to support two student in Tbilisi and pay tuition fees for one who is preparing for university exams'* – told **Tsira** from village Pia.

**Investing in different fields of agriculture** such as buying seeds for different plants, vegetables, wheat or covering costs of using machinery services was also a frequently expressed response among the questioned farmer households.

For instance, **Gela** a dairy producer from Apindza municipality had used manual labor to work on the land (produce hay) until 3 years ago his family started to earn money from selling milk which gave them the source to rent and use machinery services.

It is also notable that using incomes generated from selling milk for basic family needs, everyday expenses, covering taxes, etc. has given milk producer families increased opportunity to use

other sources of their income for more solid investments such as refurbishing homes, expanding cattle shed, purchasing home equipment – washing machines, TV, and so on.

### ***5. Choosing livestock over other fields of agriculture***

It is notable that though (according to the baseline information from the program survey in the first phase) livestock farming was practiced by all households at the start of the program in 2008, it was a smaller less commercial enterprise and was undertaken in tandem with main crops such as potatoes.

According to the current survey the respondents have frequently named livestock as a primary activity for their family backing it with the claim that livestock farming was more profitable than other fields of agriculture (e.g. growing plants, vegetables, fruits, etc.) and involved less risks compared to the mentioned areas. Hence, it is possible that the program involvement in strengthening beef and dairy sectors including its supporting functions may have at some degree influenced such preference; and an opportunity of generating regular incomes within an improved, consistent dairy market environment may well have been a good cause for farmers to become more business oriented in the mentioned areas of activity.

**Luka** from Pia, mentioned- *‘selling milk and surplus cattle is more rewarding, while growing plants is more risky for example because of hail and drought’.*

Other mentioned factor that could influence the farmers towards choosing their primary agricultural activity is the existing natural condition at the place they live. For example, available pastures and grasslands give a good conditions for raising cattle. While, small amount of land could be less rewarding for cultivation and growing plants.

**Suliko** from Gulsunda *noted that having livestock is less labor consuming [compared to growing potatoes and vegetables] when a farmer doesn’t have to produce [dairy products]*

## **6. Improved FS&H practice**

As expected, women are responsible for milking cows. The questioned dairy producers reported to know the rules and procedures of how to milk cows. They are also informed and follow the requirements of milk collectors/ dairy factories about producing clean milk. For example: Requirement to filter milk, not to mix water in the milk, keep its temperature cool and maintain its acidity within limits of norms, the cattle should be kept healthy and examined for disease (ex. Brucellosis)

There has been some cases which showed a change in behavior of milk producers about how they milk their cows, or store the milk, as a result of information received from milk collectors/ factories or other sources such as media, trainings, etc.

**Mariam**, from village Dzveli told- *'Yes, I do follow the hygiene norms more strictly, and check their [cattle] health periodically*

Besides, in some cases interviewees noted that after milk collectors recommendations they started to use special 'food' containers for keeping milk instead of aluminum containers they used before; some of them stated that the milk collectors have provided them with such vessels for free.

Seemingly, the manifested changes in behavior among milk producer farmers are likely to have a meaningful link with the program's contribution to improving FS&H practices among dairy enterprises and milk producer farmer; The activities led by the program include supporting media sources (newspaper, TV, radio) to highlight the FS&H issues, organizing training events about producing clean milk, taking care of cattle, and other relevant topics. Therefore, ALCP facilitation of dairy enterprises to implement high FS&H standards might have mechanically effected the milk producer farmers who had to follow the rules of their clients. Perspectives from factory managers stand as a good evidence for the mentioned statement, according to whom after the initial year of collecting milk from milk producer farmers with a strict control of cleanness of milk and some occurrences of refusal to accept dirty milk from them the situation has changed considerably the following years and practically no similar cases have taken place.

## ***7. Developed veterinary and state support***

The program has put a significant contribution by supporting program client Roki to develop vet infrastructure conditions in SJ which has resulted in improved quality of services and consultation at vet shops and made the medicaments available throughout the region.

The majority of the respondents pointed out that almost all type of medicines are available in vet pharmacies and that quality of services (consultation) is good; though, some of them were concerned about the increased cost of drugs.

**Luka Magradze**, *'I buy medicaments in Aspindza, which is near [my] village where I receive qualified advice. Compared to previous years the assortment in the store has expanded'*

The owners usually vaccinate their cattle for different infectious diseases and treat for worms, 'Bora', pasteriollosis, skin and liver worm, etc. while state provided veterinary services commonly immunize cattle on Murrain, Anthrax and make blood analysis on brucellosis.

A resident of village Nakalakevi, **Eter** expressed her concern during an interview about her village not having a veterinarian since the previous one passed away. The issue has been communicated to local representatives of the region.

## ***8. Improvements in cattle nutrition***

The Developed dairy market has incentivized dairy producer farmers to improve quality and capacity of milk production by introducing additional feed in the ration of their cattle which can be strongly linked to the ALCP's work in dairy sector. The feeding ration commonly applied by farmers included: green hay, oats, beetroot, barley and wheat straw.

**Darejan** from Tmogvi who started to plant oats 3 years ago said feeding cattle with oats increases cow's milking ability by nearly 80%.

While **Sonia** a milk producer from Khertvisi declared 'I added green straw [in winter] in the feeding ration [of cattle] which has increased milking of a cow by 1-1.5 liters per day'.

*'We feed our cattle with barley and what straw for 2 years, this increases milking and weight of cattle'* – told **Gela** from village Gulsunda, Aspindza.

## ***9. Empowering women's role in managing finances received from selling milk***

The switch to selling milk directly to local collectors, enabled by ALCP investments in cheese factories and the spread of improved FS&H information, does seem to have influenced a significant change in agency over revenues (from selling milk).

Most often incomes generated from selling milk is managed by women alone or together with other family members. The purchased items/ services named by women dairy producers are both for personal need (e.g. Clothes) as well as for family need such as products, medicines, children's/grandchildren's tuition fees, taxes, etc.

*'I manage the money from milk on my own; Use it to buy cattle for the family, products, clothes, we are building a house and purchasing building materials for it' – said Eka, a milk producer from Tmogvi.*

**Mamuka** from Gulsunda reported – *'The money is completely managed by my wife, she buys medicines, clothes and whatever we need.'*

It seems that the mechanism for women's control of revenue is their direct sale of milk to processors, so that men are no longer involved in the transaction. While, prior to switching to selling milk from making cheese, in some instances men did take the product in the market to sell.

### ***Other important findings***

#### ***Seasonality of selling milk***

The season when milk producers tend to actively sell milk in large amounts is usually from May to September. During this period 90% of the total of daily produced milk is sold to milk collectors/ dairy factories, while the rest is consumed by the families.

By the end of peak period the amount of milk is reduced (due to natural breeding cycle based on pasture availability, feed in the pastures becoming less available) and produced milk is usually used in families who make dairy products (mostly cheese) from it, and keep part of it for winter for family or for selling.

**Merab** from Pia village, who has ten milking cows in his farm commented: *'We sell 95% of milk, 5% we use for consumption in the family. We sell milk from early spring to mid-summer. Then we use milk [only] for family, make cheese to sell it in winter.'*

However, there were few milk producers, who produced and sold milk throughout the year. Though such behavior was not of a systemic character among the respondents. **Mariam**, a milk producer from Dzveli who has 6 milkers out of 15 cows in total sells milk during all year. She feels

very motivated and involved in the activity and tries to gain maximum efficiency from business by various methods – *‘[access to the market] has made villagers more joyful and active, when you know that for a produced milk you will receive cash by the end of the week, you try to receive more income, to better take care of cattle, feed them well and have them healthy from diseases* ;

She also added that her cows gave birth during different periods of the year, therefore milk production/ selling was possible for all the year.

However, the decline in milk production in autumn- winter periods is not only the effect of natural causes<sup>7</sup> but it highly depends on quality of feeding and taking care of the cattle adequately.

The dairy factory ‘Akhali Meskheti’ owner **Alik** sees the potential of medium/ large farmers to move on to producing and selling milk in winter periods:

*‘Large farmers should start producing and selling milk also in winter, and realize that they have much more expenses (time, energy, personnel, other resources) when producing cheese than selling milk. As price of milk is high in winter they should consider this period as an opportunity to gain maximal benefits from selling it. ‘*

*Alik* who collects milk in autumn and winter from Javakheti region, thinks that dairy producer families of Aspindza should take an example from their neighboring region (Javakheti) where farmers keep cattle in the cattle shed once it gets cool outside and start to give them food additives, bran and other nutritious feed to maintain high level of milk production.

However, for milk producers from Aspindza region it is a common thing to save hay for selling from which they find a financial benefit, which can at some degree explain their moderately lesser interest towards winter production of milk.

Difficult to access some of the villages in winter is another barrier which make it impossible for the milk collectors to access and collect milk from their population which may also have an impact on the extra investment required to produce more milk in winter.

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<sup>7</sup> The most productive period of milking of cattle is during few months right after calving

### Frequently raised issues

The most frequently raised issues by the surveyed respondents which affect production of milk was the poor access to the grasslands and pastures in the mountains and expensive transport fees. Based on respondents responses it has been a common practice to bring mowed hay from grasslands (in mountains) to lowlands to make bales. This could possibly make the quality of hay poor, considering amount of time (poor conditions of roads) needed to bring the hay to lowlands;

**Murman** from Dzveli, Aspindza pointed out: *'Bringing the hay [from highlands] is too costly and there are very bad roads to the grasslands'*

In spite of several attempts from government the roads to grasslands/pastures in the areas of questioned families of Aspindza still remain in bad condition and stands a major problem.

### **Conclusion**

The study has revealed number of positive processes happening in the dairy sector in the region of Samtskhe- Javakheti - Aspindza. Increased number of livestock, improved nutrition and veterinarian practices, and better evidence of producing clean milk, demonstrate these changes and highlight furthered business orientation of dairy producers.

However, activity of selling milk mainly has more of a seasonal (spring-summer) character and is still in process of development as a more year round activity; The evidence from neighboring regions have shown that there is an actual potential of making it work through whole year and therefore achieve more profits compared to making/selling cheese. Further realization of this opportunity and putting some additional effort from Dairy producers along with the support from private and state sector to deal with problematic issues, especially related to infrastructure (roads) could be next essential steps towards improving situation in the region.

## **ANNEX**

### ***Methodology of the survey***

The survey mainly used outcome harvesting techniques to understand the range of outcomes to which its programming may have contributed. In addition to identifying and exploring the likely causes of outcomes, the trial also attempted to assess the degree to which identified outcomes may be systemic.

In outcome harvesting, the evaluation user works with the evaluator (harvester) to define questions about outcomes that can be used to make decisions and take action. Outcomes may relate to behavior, relationships, practices or policies.<sup>8</sup> For each outcome, the harvester uses a variety of data sources to assess the degree to which outcomes have occurred and the contribution of the implementer (change agent) to that outcome. The approach is retrospective in that it first describes outcomes and then seeks plausible explanations of how the outcomes occurred. OH can be used for ongoing monitoring or ex-post impact evaluation, and can be used to examine intended and unintended outcomes.

Essentially, outcome harvesting consists of six iterative steps:

- 1) Design the Outcome Harvest: Harvest users and harvesters identify useable questions to guide the harvest. Both users and harvesters agree on what information is to be collected and included in the outcome description as well as on the changes in the social actors and how the change agent influenced them. [SEP]
- 2) Gather data and draft outcome descriptions: Harvesters glean information about changes that have occurred in social actors and how the change agent contributed to these changes. Information about outcomes may be found in documents or collected through interviews, surveys, and other sources. The harvesters write preliminary outcome descriptions with questions for review and clarification by the change agent. [SEP]
- 3) Engage change agents in formulating outcome descriptions: Harvesters engage directly with change agents to review the draft outcome descriptions, identify and formulate additional outcomes, and classify all outcomes. Change agents often consult with well-informed individuals (inside or outside their organization) who can provide information about outcomes. [SEP]

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<sup>8</sup> Text through the six steps of the process is drawn directly from Wilson-Grau and Britt, "Outcome Harvesting," Ford Foundation, 2012.

- 4) Substantiate: Harvesters obtain the views of independent individuals knowledgeable about the outcome(s) and how they were achieved; this validates and enhances the credibility of the findings. [SEP]
- 5) Analyze and interpret: Harvesters organize outcome descriptions in order to make sense of them, analyze and interpret the data, and provide evidence-based answers to the useable harvesting questions. [SEP]
- 6) Support use of findings: Drawing on the evidence-based, actionable answers to the useable questions, harvesters propose points for discussion to harvest users, including how the users might make use of findings. The harvesters also wrap up their contribution by accompanying or facilitating the discussion amongst harvest users

In addition to following the six steps, the ALCP trial included an additional examining of the degree to which outcomes identified in the process were in some sense systemic, owing to the fact there is nothing necessarily systemic about the outcome harvesting process, itself.

Outcome harvesting exercises begin with the identification of a central question the harvest is intended to answer. At the same time, the assessment team must identify the informant population, the intended users of the outcome harvest, and the intended uses. The ALCP trial's questions, informant population, users and uses are detailed in the text box below.

### ***Process and modifications to the methodology***

**The outcome harvesting question:** *How and to what extent has the quality of life of HH farmers and their behaviors changed as a result of improved access to dairy market and its supporting functions within their communities?*

**The informant population:** Households in Aspindza, Samtskhe- Javakheti who have adopted improved dairy production behaviors, plus dairy industry service providers, collection point/factory managers

**Harvest users:** ALCP staff

**Harvest uses:**

To inform ALCP about

- *The way access to dairy market triggered HH farmers to employ better practices of dairy production<sup>1</sup>*
- *How selling milk effected the families in socio-economic perspective?*
- *Whether dairy production has reflected on HH farmer's quality of life? (Free time and energy, additional economic activities, etc.)*
- *Unintended effects that may have resulted, at least in part, due improved dairy production at the household level*

Perhaps the most significant departure from the standard outcome harvesting methodology was omitting the substantiation part. There were two basic reasons for this:

1. The proposed suggestions about the topics of our interest by the respondents during interviews in most of the cases coincided, which gave our qualitative study sufficient credibility
2. Leaving substantiation process, requires less human and financial resources and gives possibility to conduct a study in a much shorter time.

As the focus of the survey was to study those families who transitioned from making/ selling cheese to selling milk those villages. Consequently the sample of respondents represented milk producer families supplying raw milk to program supported dairy enterprises.

For better exposure of the effects of transition from making/ selling cheese to selling milk on population the annual milk production capacity was considered when selecting the sample villages.

Interviewers randomly selected from the list of sample households who sold milk to program financed dairy enterprises (*Akhali Meskheti*, Toloshi, Aspindza; *Tsipora*, Uraveli, Akhaltsikhe); in total 30 households from six Aspindza villages were interviewed; the villages were: Pia, Nakalakevi, Khertvisi, Gulsunda, Tmogvi and Kkhertvisi.

The survey mostly used a qualitative techniques and the questionnaires were made of open ended questions. This approach gave interviewers chance to explore in depth the issues relevant to the study.

The interview process basically lasted from 20 – to 30 minutes and was easily manageable both for interviewers and respondents.

The following steps were used for processing and analyzing the data gathered from questionnaires:

- Filtering 9 “outcome areas” and 2 important findings which were recurring in the interviews and relevant to the question (s) of the study
- Building a separate sheet with relevant quotes from the respondents proving a strong evidence and effective example for the respective outcome areas, some of which were later used in the report.
- Analyzing, interpreting and reported the data