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# Impact Evaluation of the Georgian New Economic Opportunities (NEO) Project

## Report on the Baseline Impact Evaluation of NEO's Component 2 and 3 Activities

January 3, 2014

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**IMPACT EVALUATION OF THE GEORGIAN NEW ECONOMIC OPPORTUNITIES  
(NEO) PROJECT**

**REPORT ON THE BASELINE IMPACT EVALUATION OF NEO'S COMPONENT 2  
AND 3 ACTIVITIES**

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# 1 EXECUTIVE SUMMARY

## 1.1 Introduction

This report presents the findings from baseline impact evaluation of the Georgia New Economic Opportunities (NEO) Component 2 (Rural Economic Development) and 3 (Assistance to Vulnerable Households) interventions. Funded by USAID at an estimated at \$20.5 million, NEO is a four-year project based in Georgia with the objectives of improving rural incomes, reducing poverty levels, improving food security, addressing production constraints among small-scale agricultural producers, assisting internally displaced persons (IDP) to maintain their households, and aiding communities distressed by natural or other disasters. NEO supports approximately 70,000 households in 85 communities and 10 municipalities through community mobilization and local economic-development planning, livelihood assistance, and value-chain development. The project aims to increase household production by 15-25% and decrease vulnerability by 25% among targeted households and individuals.

The Component 2 (Rural Economic Development) and Component 3 (Assistance to Vulnerable Households) impact evaluation uses a quasi-experimental, mixed-methods design consisting of a longitudinal panel survey and qualitative research methods. In the panel survey, a treatment and control sample of households in project communities is surveyed twice, once at the beginning of the project (baseline) and again at end of the project, with an approximately two year interval between surveys. The quasi-experimental design matches a sample of control (non-project) villages to a random sample of treatment (project) villages, and then randomly samples households in the treatment and control villages to participate in the survey. To construct the survey sample, we use a multi-stage cluster sampling design. This method produced a total sample size of 1,730 respondents, including 865 treatment respondents and 865 control respondents, drawn from 10 municipalities, 66 communities, and 66 villages.

Undertaken subsequent to the Component 1 (LED) evaluation, the Component 2 and 3 evaluation seeks to answer the following five primary research questions:

1. *What was the overall impact of NEO's rural economic development component on increasing incomes and creating jobs in targeted communities? To what degree did the component increase productivity and/or profitability of targeted farms/ businesses?*

2. *What was the impact of providing grants vs. other types of assistance as a means of addressing project goals?*
3. *What was NEO's impact on increasing access to financial services for underserved agricultural and non-agricultural rural producers/ processors/ service providers?*
4. *What was the resulting impact of micro-grants, in-kind support, cash-for-work, and capacity-building interventions provided to highly vulnerable households toward sustainably alleviating poverty?*
5. *Did the project affect men and women in the communities differently? (Cross-cutting)*

## **1.2 Baseline Findings—VOCATIONAL EDUCATION**

### **1.2.1 Household Demographics**

The similarity between treatment and control groups on respondent and household demographic characteristics is a mixed bag. Treatment group respondents significantly differ from control group respondents in terms of household size, marital status, age, and gender, but no significant differences exist between the groups in terms of respondent employment status, number of income earners, main sources of household income, respondent education level, and ethnicity.

### **1.2.2 Household Economic Conditions**

Treatment and control respondents are remarkably similar on measures of household economic conditions. With only two exceptions, livestock ownership and average plot size, there are no statistically significant differences between the two groups on multiple measures of household economic conditions.

### **1.2.3 Employment History**

Compared to the control group, treatment group respondents were equally likely to have been employed over the last 12 months, although treatment respondents were more likely to be employed

for a salary/wage or in the non-agricultural sector in temporary positions, compared to control respondents who were more likely to be permanently employed in full-time jobs.

### **Wage/Paid Employment**

Of those survey respondents who had wage or paid employment over the last 12 months, control respondents were significantly more likely than treatment respondents to have worked for a registered private firm or government organization (as opposed to a private person), worked more hours, earned more money, received medical benefits, and had a written employment agreement. Thus it appears that NEO has selected participants for the vocational education course who are worse off in terms of wage/paid employment than the average village members. This suggests in turn that NEO has successfully targeted its vocational education course to those who stand in greater need of it.

### **Agricultural Self-Employment**

Treatment and control respondents are involved in much the same agricultural activities, although the importance of each activity as an income source varies with treatment respondents earning less from nut production but more from pulse production and beekeeping. Control respondents on average, however, earn nearly double from agricultural activities than do treatment respondents.

## **1.2.4 Outcome of Vocational Education Course**

Among those completing the vocational education course, only around 30% found work after the course, including several who continued with existing work, taking an average between 1.2-2.0 months to find work. More than two-thirds of those who found work did so in either non-agricultural or agricultural self-employment. Of those who did not find work, the lack of jobs or suitable jobs was cited as the primary reason. Notwithstanding, respondents overwhelmingly found the course useful and believe it will be useful in finding future employment, although they are in turn mostly pessimistic or unsure about their future job prospects.

It is important to note that the above findings indicate a significantly lower employment rate than reported in NEO's internal monitoring system, which reports that approximately 70% of those completing the vocational education course found employment at the conclusion of the course. For its purposes, NEO defines employment as an individual, who generates income directly from a NEO-supported income generation activity, whether from direct employment or self-employment. This

includes beneficiaries of all Component 2 and 3 interventions (e.g., vocational training, on-the-job training, livelihood packages, agricultural grants, tourism grants, etc.). In contrast, we define employment in this baseline report as those individuals completing the vocational education course who either find paid employment or who engage in agricultural or non-agricultural self-employment, which, as mentioned above, results in significantly lower employment figures. In the endline survey, we will measure and report both definitions of employment.

### **1.2.5 Salary or Wage Employment**

Both treatment and control respondents have a wide variety of types of paid employment, although control respondents tend to work more in salaried positions than treatment respondents. Control respondents have been on the job longer, earn more money, and are more likely to work for a registered organization, have medical benefits, and have a written work agreement. Notwithstanding, treatment respondents are significantly more satisfied with their jobs than control respondents.

### **1.2.6 Agricultural Self-Employment**

Both treatment and control respondents have a wide variety of types of agricultural self-employment. Control respondents have been involved in the activity for a longer period of time, while treatment respondents earn more money from the activity and are significantly more satisfied with it than control respondents.

### **1.2.7 Non-Agricultural Self-Employment**

Treatment respondents with non-agricultural self-employment tend to be tailors or beauticians; operate inside their residences (and to a lesser extent on the roadside or in another fixed location); either did not need money to start the business or got the money an NGO, private person, or own savings; earn on average GEL 105 per month; are not registered for the VAT or income tax, and are satisfied with their work.

### **1.2.8 Satisfaction with Vocational Education Course**

Treatment respondents generally give the vocational education course high marks between satisfied and very satisfied in terms of its quality and the knowledge and skills provided but they are more lukewarm in rating the course in terms of its usefulness in helping them find jobs and improve their

lives, with answers typically falling between neutral (neither satisfied or unsatisfied) and satisfied. Overall, however, over 80% of respondents said that they are either satisfied or very satisfied with the course with the mean score falling closer to satisfied than very satisfied.

### **1.2.9 Access to Credit**

Both treatment and control respondents were equally likely to apply for a loan over the last 12 months (27%-31%) and both were also equally likely to get the loan, with an over 95% success rate in each case. Respondents in both groups applied most frequently to commercial/development banks and to a lesser extent to microfinance institutions, while control respondents tended to get larger loans over more months with no significant difference in the interest rate charged. Those who did not apply for a loan in each group were equally likely to cite the fear of not being able to repay the loan or the fact that they did not want/need a loan as the reasons for not applying.

## **1.3 Baseline Findings—RURAL PRODUCTION**

### **1.3.1 Household Demographics**

The results reveal a number of significant demographic differences among the treatment and control respondents. Compared to the control respondents, treatment respondents are slightly older and come from slightly larger households; are much less likely to be female; are more likely to be married and less likely to be single; are more likely to be engaged in farming and derive most their income from farming; less likely to earn income from employment in the public sector or from pensions; and more likely to have received an advanced education. Areas in which there were no significant differences between the two groups include ethnicity, number of income sources, and IDP status.

### **1.3.2 Household Economic Conditions**

Overall, treatment households fare better than their control counterparts on measures of economic well-being. Treatment respondents are less likely to be poor (and more likely to be middle class or above), own more and larger plots of agricultural land, have higher household expenditures while spending less proportionately on food, have larger homes, and own more livestock. Despite this, control households are more likely to own certain important household assets and enjoy greater access to basic services, such as hot water, gas heating, landlines, and mobile phones.

Notwithstanding the above differences, the treatment and control households are similar on a number of other measures of household well-being. Specifically, they are equally likely to own certain agricultural assets, receive social assistance or participate in government-run health insurance (although control respondents are more likely to say that social assistance is 'very important'), and own their homes and are equally unlikely to engage in coping strategies or be food insecure. The two groups are also equally likely to have experienced positive/negative changes in household economic conditions and are equally optimistic/pessimistic about their future economic conditions.

### **1.3.3 Vegetable and Grain Production**

Treatment and control respondents produce a wide variety of vegetables and grains, although with a heavy concentration in tomatoes, potatoes, and cucumbers, each of which they have produced in excess of 10 years on average with control respondents having significantly greater experience producing cucumbers, lettuce, potatoes, onions, and grain. Respondents in both groups typically produce vegetables on small plots of land averaging less than 0.2 hectares. Treatment respondents consistently produce more of each crop in terms of kgs and are also on average more productive in terms of kgs produced per hectare. Treatment respondents also sell significantly more, both in terms of kgs and liri value, and also earn significantly more after expenses by GEL 698 to GEL 143. Both groups consume on average more than 50% of what they produce and lose from 13% (control) to 25% (treatment) to wastage. Finally, neither group employs many people to produce vegetables with the number of FTEs hired equal to only 0.3 on average.

### **1.3.4 Cane Fruit Production**

Cane fruit production in both groups was concentrated heavily in wine grape production and to a lesser extent in strawberries among livelihood package recipients with relatively few treatment respondents and almost no control respondents producing raspberries and blackberries. Respondents in both groups have an average over 20 years producing wine grapes, while treatment respondents overall have relatively little experience producing strawberries, raspberries, and blackberries, with the exception of livelihood package recipients, who have over six years of experience. Treatment and control respondents use about the same amount of land to produce wine grapes at 576 square meters. Compared to control respondents, treatment respondents on average produce more than double the kgs of wine grapes, are significantly more productive in terms of kgs produced per square meter, sell significantly more kgs, use significantly more grapes for home consumption, have significantly larger

grape sales, and earn significantly more income from grape sales. Finally, treatment respondents hire only 0.3 FTEs on average.

### **1.3.5 Stone Fruit Production**

Control respondents are more likely than treatment respondents to produce stone fruits and hazelnuts. At the same time, respondents in both groups have over 10 years experience producing the stone fruits and produce them on less than one hectare of land on average. Treatment respondents both own and harvest a significantly larger number of trees and produce more kgs of fruit overall, although they are also on average as productive as control respondents in terms of kgs produced per tree. Treatment respondents sell significantly more, both in terms of kgs and lari value (GEL 1,705 vs. GEL 932), and also earn significantly more after expenses by GEL 1,251 to GEL 889. Control respondents consume nearly one-third of the harvest compared to only 5% among treatment respondents, while wastage among both groups is small at less than 7%. Finally, neither group employs many people to produce stone fruits with the number of FTEs hired equal to only 0.12 on average.

### **1.3.6 Beekeeping**

The survey included 77 beekeepers among treatment respondents but only 14 beekeepers among control respondents. Of these, control respondents were moderately more experienced at beekeeping than treatment respondents, although both had approximately the same number of colonies (16.3) and hives (17.5). Beyond this, treatment respondents outperformed control respondents in nearly all measures of production, sales, and income by significant margins that include total lari sales of GEL 1,457 compared to GEL 554 and net income of GEL 1,126 compared to GEL 348. Both groups consumed and gifted around 40% of total honey produced, while both groups hired on average zero FTEs to work on beekeeping/honey production.

### **1.3.7 Poultry Production**

At this stage in NEO operations, the survey team was not able to find many poultry producers and even fewer who had to this point sold poultry and earned money from the activity. With that said, the results suggest that treatment respondents tend to take a more commercial view of poultry raising given that they raise on average substantially more birds (100+ vs. 13.5); have increased their stock on average, while control respondents have seen their stock fall, and consume or gift a substantially smaller percentage of their stock (11% vs. 50%).

### **1.3.8 Adoption of New Technologies and Practices**

Virtually none of the control respondents had adopted the technologies or practices covered by the survey, while among the treatment groups the adoption rate varied widely with significantly higher adoption rates among production grantees followed at a distance by agricultural trainees and at an even greater distance by livelihood package recipients. The widely varying rates of adoption probably reflect the fact the production grantees tend to be the largest and most 'sophisticated' producers within the treatment group, while the livelihood package recipients tend to be the smallest and least sophisticated. The disparity in adoption rates among treatment and control groups is probably also a function of relative size and sophistication and the fact the NEO has already begun work among its target farmers on adoption of many of the covered technologies and practices.

### **1.3.9 Extension Services**

The survey asked a series of questions about receipt of extension services. The main finding here is that no control respondents reported having received extension services during the last 12 months. Among the treatment group anywhere from 91%-99% of extension services received were provided by NEO or NEO implementing partners. For these reasons, there appears to be little value to be gained by reporting the baseline results for extension services.

### **1.3.10 Enterprise Production**

Respondents operating microenterprises are concentrated among livelihood package recipients with 26 respondents concentrated in carpentry, retail sales, guesthouse operation, and tailoring, compared to only six control respondents who are operating microenterprises. Livelihood package recipients appear for the most part to be operating start-ups funded by own savings or with NGO assistance operated either within or outside the main residence compared to 8.8 years of production on average among control respondents operated in a wide variety of locations and financed through a wide variety of sources. Both groups operate their businesses somewhere between 5-12 months during the year. Livelihood package recipients report gross revenues of GEL 780 per month and net income of GEL 363 compared to GEL 1,350 and GEL 805, respectively, among control respondents. Neither group hires many FTEs to help run their businesses averaging only between .10 and .13 FTEs.

### **1.3.11 Business Development Services**

The survey asked a series of questions about receipt of business development services (BDS) by microenterprise operators. The main finding here is that no control respondents reported having received BDS during the last 12 months. Among the treatment group, nearly all business development services received were provided by NEO or NEO implementing partners. For these reasons, there appears to be little value to be gained by reporting the baseline results for BDS.

### **1.3.12 Access to Credit**

Around 30% of treatment and control respondents applied for a loan over the last 12 months and both were equally likely to get the loan, with an over 90% success rate in each case. Respondents in both groups applied most frequently to commercial/development banks and to a lesser extent to microfinance institutions, while treatment respondents tended to get larger loans over more months with no significant difference in the interest rate charged. Those who did not apply for a loan in each group cited the fear of not being able to repay the loan, the fact that they did not want/need a loan, and the high interest rates as the reasons for not applying. Members of both groups used their loans for a variety of non-business purposes, prominent among them to purchase consumer goods, construct or rehabilitate their homes, or pay for medical services. Treatment respondents were more likely overall to use the loan for business purposes, although a similar percentage of control respondents also used their loans to purchase inputs or working capital. Overall, and depending on the treatment group, treatment respondents used approximately 25%-50% of their loans for business purposes compared to around 30% of control respondents. Among treatment respondents, production grantees were more likely to use the loan for production purposes followed by agricultural trainees and livelihood package recipients.

## **1.4 Sampling Issues**

Stemming from the difficulty the survey team had finding unique beneficiaries for the treatment group in several sample villages, the sampling plan proposed in the Evaluation Design turned out not to be practical once researchers began the fieldwork. In the end, the survey team was only able to interview 865 treatment households, along with a matching number of 865 control households, which was 6.9% less than planned, even though we the number of sampling units (villages) from 50 to 66 during the fieldwork. The main shortages occurred in the vocational education survey and in the livelihood

packages survey. We were able to make up some of the loss by increasing the number of production grant and agricultural training respondents in the sample.

As a result, the survey team found it necessary to increase the number of sampling units (villages) from 50 to 66 so as to meet the sampling targets. Despite increasing the number of sampling units by almost by one-third, the survey team was still unable to complete the planned number of treatment and control surveys. In the end, the final sample included 865 observations in both treatment and control groups.

The change in the sampling distribution actually improved the minimum detectable effect (MDE) for the production grantee and agricultural trainee samples from 24.4% to 21.7% in the first case and from 24.4% to 15.2% in the second case, while worsening the MDE for the livelihood package sample from 15.3% to 20.7%. The MDE for the vocational education sample remained the same despite the drop in sample size. The MDE for the consolidated sample also worsened from 0% to 8.5%, although the latter is still well within the performance targets established by NEO.

There are also a number of potential sources of sampling bias in the Component 2-3 sample. To begin with, there are significant demographic differences treatment and control samples. There are also statistically significant differences between the treatment and control households in terms of their economic conditions within the rural economic development sample. Because it was extremely unfeasible for budgetary and other reasons to try design functional criteria for selecting individual control subgroups for all of four treatment populations, we created a single control group instead, which represents the statistical average for household conditions in surveyed communities. The downside of the single control group, however, was that it made it impossible to closely match the control households to the treatment households within each of the four treatment populations.

We will take two approaches to account for potential selection bias created by the differences between the treatment and control groups. First, as part of the difference-in-difference analysis after the endline survey, we will measure the project impact and control for observable and unobservable characteristics of the treatment and control sample by regressing the difference-in-difference estimator on a project participation variable and a set of covariates (control variables) believed to be related to project participation and results.

In addition to this regression analysis approach, we will attempt to analyze the results at the endline using the propensity score matching (PSM) method. PSM can help ensure that the control group is

similar to the treatment group before doing the difference-in-difference analysis. A propensity score is defined as the probability that a household in the combined sample of treated and untreated households receives the treatment, given a set of observed variables. If all information relevant to participation and outcomes is observable, the propensity score (or probability of participation) will produce valid matches for estimating the impact of the project interventions. Therefore, rather than attempting to match on all values of the variables, cases can be compared on the basis of propensity scores alone.

## **2 INTRODUCTION**

This report presents the findings from baseline impact evaluation of the Georgia New Economic Opportunities (NEO) Component 2 (Rural Economic Development) and 3 (Assistance to Vulnerable Households) interventions. Funded by USAID at an estimated at \$20.5 million, NEO is a four-year project based in Tbilisi, Georgia with the objectives of improving rural incomes, reducing poverty levels, improving food security, addressing production constraints among small-scale agricultural producers, assisting internally displaced persons (IDP) to maintain their households, and aiding communities distressed by natural or other disasters. NEO supports approximately 70,000 households in 85 communities and 10 municipalities through community mobilization and local economic-development planning, livelihood assistance, and value-chain development. The project aims to increase household production by 15-25% and decrease vulnerability by 25% among targeted households and individuals.

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### **3 NEO PROJECT**

The NEO project includes the following four components: (1) community level economic development (LED) planning, (2) rural economic development, (3) assistance to strengthen highly vulnerable households, and (4) promoting sustainability of IDP houses being rehabilitated with support from the USG. This impact evaluation report covers the baseline research done on NEO's rural economic development and vulnerable household interventions. A brief description of these activities is presented below.

#### **3.1 Rural Economic Development**

NEO seeks to promote economic development as a core strategy to increase household production levels, diversify incomes sources, and create long-term employment opportunities. Using a variety of forms of technical assistance, NEO works to strengthen linkages between small-scale producers and other value chain actors (e.g., producers, input suppliers, processors, etc.) in its target communities. NEO also promotes linkages among organized economic entities (e.g., producer associations) that are already operational in its target communities so as to promote economies of scale. The specific types of technical assistance provided varies according to the economic opportunities and constraints in each community; however, interventions focused on increasing productivity, eliminating bottlenecks, and strengthening business skills are common across all target geographic areas and economic sectors.

With this said, under Component 2 NEO is implementing two primary interventions: production grants and agricultural training.

##### **3.1.1 Production Grants**

Production grantees are individual farmers who receive cash and in-kind grants from NEO to improve their on-farm or enterprise production and income. Production grantees include direct grantees that receive grants directly from NEO and sub-grantees who receive grants indirectly from NEO through their producer associations, which receive the grants directly from NEO. As of June 2013, just prior to the launch of the baseline survey, NEO had given 186 grants and sub-grants allocated across the tourism, strawberry, beekeeping, seed potato, hazelnut, and vegetable sectors, as seen in Table 1.

**Table 1 Allocation of Grants and Sub-Grants**

| Type of Grantee                   | Location                                                         | Number of Beneficiaries |
|-----------------------------------|------------------------------------------------------------------|-------------------------|
| Tourism grantees                  | Mtskheta-Mtianeti                                                | 8                       |
| Strawberry sub-grantees           | Samegrelo                                                        | 10                      |
| Greenhouse grantees               | Samegrelo                                                        | 11                      |
| Beekeeping sub-grantees           | Mtskheta-Mtianeti<br>Samegrelo<br>Racha-Lechkhumi<br>ShidaKartli | 34                      |
| Seed potato grantees              | Mtskheta-Mtianeti.<br>Racha-Lechkhumi                            | 12                      |
| Hazelnut sub-grantees             | Samegrelo                                                        | 83                      |
| Open field vegetable grantees     | Mtskheta-Mtianeti<br>ShidaKartli                                 | 6                       |
| Open field vegetable sub-grantees | Mtskheta-Mtianeti<br>ShidaKartli                                 | 1                       |
| Strawberry/lettuce sub-grantees   | Mtskheta-Mtianeti<br>Samegrelo<br>Racha-Lechkhumi<br>ShidaKartli | 21                      |

Another type of grantee included under Component 2 is an ‘input-supply grantee,’ which is an agricultural producer who receives a grant from NEO to produce and distribute production inputs, such as seeds or root stock, to other farmers living in the community. We have excluded this group of grantees from the sample, as we consider this to be more an intervention aimed at strengthening the agriculture ‘support markets’ in the target communities, which affect on-farm production indirectly. In contrast, production grants are provided to small farmers with the direct aim of improving on-farm production. As of June 2013, NEO had given 15 input-supply grants.

### **3.1.2 Agricultural Training**

Ad hoc agricultural trainings are typically organized around demonstration plots established by NEO to promote good cultivation practices across a range of targeted crops. Trainings may last a day, or they may last several days, depending on the crop and the practice being promoted. Participation in the training is entirely voluntary; NEO disseminates information about the training and invites farmers to attend. Some farmers may attend a single training, while other farmers may attend multiple trainings.

NEO keeps detailed records about which farmers attend which trainings. As of June 2013, NEO had trained 2,468 farmers exceeding its target of 2,377 beneficiaries through 2013.

## **3.2 Assistance to Vulnerable Households**

Under Component 3, NEO provides technical assistance to vulnerable households in its target communities through a combination of skills building and grants to increase employment opportunities, strengthen business skills, and improve agricultural production and to improve household food security through the use of 'livelihood packages' and vocational education.

### **3.2.1 Livelihood Packages**

Livelihood packages consist of a starter-kit for either an agricultural or non-agricultural income generating activity, paired with technical assistance by which the beneficiaries are taught to employ these kits, trained in basic business skills, and monitored regularly to ensure they have the support needed to develop their skills and enhance their income generating activities.

Seventeen agricultural packages have been identified, including: aquaculture, animal husbandry (rabbits, poultry, beekeeping), fruit production (strawberries, berries, apples, etc.), vegetable production (open-field and greenhouse), and grain production. Agricultural packages range in value from GEL 1,100 to GEL 3,465, with an average value of GEL 2,600. Beneficiaries contribute between 5%-30% in-cash or in-kind depending on their resources and vulnerability status.

Fifteen non-agricultural packages have been identified, including: service provision (tailoring, hairdressing, cobbler, car repair and wash, etc.), production (carpentry and woodworking, food and confectionary production, stone and ceramic processing), and retail (shops/sales, guesthouse, bakery, café, etc.). Non-agricultural packages range in value from GEL 520 to GEL 3,000, with an average value of GEL 2,100. Beneficiaries contribute between 5%-30% in-cash or in-kind depending on their resources and vulnerability status.

A number of livelihood package recipients also receive access to loan training offered through NEO's implementing partner CHCA and a small number (about 60% of those receiving the training) additionally receive small, low-interest loans offered through CHCA. (The livelihood package sample will not stratify for whether the recipient received the access to loan training or received loans, as we expect to pick up

a more or less proportional number those with and without training and loans through random sampling.)

NEO has worked with community working groups to identify and survey 1,326 potential beneficiaries from NEO's 61 active target-communities. In order to qualify as a potential beneficiary, households must display a strong commitment and potential for income generation, have to be registered in a socially vulnerable households database (SSA database) with a score below 100,000 points, have at least 4 family members who would benefit from the assistance, and have enough able-bodied family members to participate in their preferred activity. As of June 2013, NEO had provided only 19 livelihood packages, but had shortlisted another 320 households to receive livelihood packages over the coming year. Over the life of the project, NEO plans to grant a total of 450 livelihood packages.

### **3.2.2 Vocational Education**

NEO provides vocational education to members of vulnerable households through public vocational colleges or NGOs whom NEO supports with grants to offer courses and develop curriculum on trades as diverse as electricity, plumbing, beekeeping, grafting, welding, apparel making, hairdressing, culinary, and construction. NEO also incentivizes lead firms to work with vocational training service providers to tailor courses to the lead firms' needs, while also asking the lead firms to co-finance the vocational training activities. About 60%-70% of vocational education graduates receive "toolkits" from NEO consisting largely of tools and equipment needed to carry out the income generating activity. (The vocational education sample will not stratify for whether the recipient received the toolkit, as we expect to pick up a more or less proportional number those with and without toolkits through random sampling.) As of June 2013, 498 vulnerable persons had participated in one of the NEO-sponsored vocational educational courses.

NEO is also seeking to provide on-the-job training opportunities to other vulnerable individuals. Initially our intention was to include this group of beneficiaries in the Component 3 sample. Unfortunately, NEO has yet to launch this intervention or identify on-the-job-training participants meaning that we will not be able to include it in the baseline evaluation. We will evaluate on-the-job training qualitatively during the endline evaluation.

## 4 EVALUATION QUESTIONS AND HYPOTHESES

### 4.1 Evaluation Questions

The impact evaluation of the NEO Component 2-3 interventions is designed to provide rigorous and credible evidence to answer the following research questions:

- 1. What was the overall impact of NEO's rural economic development component on increasing incomes and creating jobs in targeted communities? To what degree did the component increase productivity and/or profitability of targeted farms/ businesses?*
- 2. What was the impact of providing grants vs. other types of assistance as a means of addressing project goals?*
- 3. What was NEO's impact on increasing access to financial services for underserved agricultural and non-agricultural rural producers/ processors/ service providers?*
- 4. What was the resulting impact of micro-grants, in-kind support, cash-for-work, and capacity-building interventions provided to highly vulnerable households toward sustainably alleviating poverty?*
- 5. Did the project affect men and women in the communities differently? (Cross-cutting)*

### 4.2 Additional Research Hypotheses

In addition to the above research questions, the Component 2-3 impact evaluation seeks to measure a variety of other research hypotheses related to the impact of NEO's economic development activities on citizens' perceptions of local government, perceptions of and participation in civic affairs and knowledge and perceptions of community economic planning. In particular, we test the following additional seven research hypotheses:

- 1. Participation in rural economic development activities improves the food security of beneficiary households. (Components 2 and 3)*
- 2. Participation in rural economic development activities increases the average value of targeted household production among small agricultural producers and vulnerable households.*

*(Components 2 and 3)*

3. *Participation in rural economic development activities leads to increased yields of targeted agricultural commodities. (Components 2 and 3)*
4. *Participation in rural economic development activities leads to increased adoption of improved production practices among small agricultural producers and vulnerable households. (Components 2 and 3)*
5. *Participation in rural economic development activities raises beneficiary households above the minimum subsistence level. (Components 2 and 3)*
6. *Participation in rural economic development increases income diversification among vulnerable households. (Component 3)*
7. *Participation in vocational education and on-the-job training activities leads to improved long-term employment among vulnerable household members. (Component 3)*

The above research hypotheses measure different dimensions of the following NEO impact indicators found in the NEO Causal Pathway:

- *25% increase in average value of targeted household production (Component 2)*
- *15% increase in average value of targeted household production (Component 3)*
- *25% of targeted vulnerable households and individuals raised to the official subsistence level (Components 2 and 3)*

The purpose of the baseline evaluation round is to establish the original conditions at the beginning of the Component 2-3 interventions. It is important to note that the baseline evaluation round is not intended to answer the above evaluation questions and research hypotheses. Rather its purpose is to establish and report the original conditions among treatment and control households at or near the beginning of project activities. We can answer the evaluation questions and research hypotheses only after completing follow-up research rounds, which will allow us to compare the relevant changes that have occurred over time among treatment and control households.

Another purpose of the baseline evaluation round is to establish the extent to which the treatment households and households are similar to each other. The sampling plan was developed so as to maximize the similarity between the two groups and thus minimize the extent of selection bias in the sample. The baseline survey results will allow us to make a judgment as to whether our sampling plan was successful in achieving this objective.

## **5 EVALUATION DESIGN**

### **5.1 Sampling Plan**

This section provides a brief description of the evaluation design used in the Component 2-3 impact evaluation. An in-depth description of the evaluation design is found in Annex 8 to this report. The Component 2-3 impact evaluation uses quasi-experimental, mixed-methods approach consisting of a longitudinal panel survey and qualitative research methods. In the panel survey, a treatment and control sample of households in project communities is surveyed twice, once at the beginning of the project (baseline) and again at end of the project, with an approximately two year interval between surveys. (The panel survey interviews the same group of households in both the baseline and endline surveys.) Data from these surveys will be combined with qualitative information collected through interviews and FGDs and with secondary information collected from NEO's performance monitoring system, government sources, and other donor projects working in Georgia. Impacts will be measured at the community, household, and individual levels.

Ideally, an experimental evaluation design that randomly assigns households and/or communities to benefit or not benefit from project interventions would provide the highest level of rigor (e.g., control for selection bias) possible. NEO, however, has already selected its 85 project communities eliminating the possibility of randomly assigning communities into the project. The project design and structure, moreover, make random assignment of households into the project impossible.

In lieu of an experimental design, the Component 2-3 evaluation uses a quasi-experimental research design that matches a sample of control (non-project) villages to a random sample of treatment (project) villages, and then randomly samples households in the treatment and control villages to participate in the survey. Where experimental designs are not possible, quasi-experimental designs offer the highest level of rigor attainable, while allowing researchers to attribute evaluation findings to project interventions with a reasonably high level of statistical validity. By matching control villages to

treatment villages, we attempt to minimize sources of selection bias caused by observable factors.<sup>1</sup> Of course, the success of this approach depends on the closeness of the match, or alternatively, the similarity between the treatment and control group members. The more similar the match is, the better. As mentioned earlier, one purpose of the baseline evaluation round is to determine how similar the treatment and control group members are to each other and thus the potential for significant selection bias in the sample.

To construct our sample, we use a multi-stage cluster sampling design. In a case such as this where constructing a complete list of population members (sampling frame) is both difficult and cost-prohibitive and where population boundaries are well defined, cluster sampling offers a relatively feasible and inexpensive sampling method. This method produces a total sample size of 1,730 respondents, including 865 treatment respondents and 865 control respondents, drawn from 10 municipalities, 66 communities/Sakrebulo, and 66 villages. Table 2 shows how the sample breaks down by municipality, Sakrebulo, and village.

**Table 2 Municipalities, Sakrebulo, and Villages Covered by the Impact Evaluation**

| Municipality | Sakrebulo      | Village    | Treatment (N) | Control (N) |
|--------------|----------------|------------|---------------|-------------|
| Gori         | 1. Variani     | Variani    | 1             | 3           |
|              | 2. Shavshvebi  | Shavshvebi | 12            | 22          |
|              | 3. Shavshvebi  | Natsreti   | 1             | 0           |
|              | 4. Mejriskhevi | Zerti      | 1             | 1           |
|              | 5. Tirznisi    | Ergneti    | 2             | 2           |
| Total Gori   |                |            | 45            |             |
| Kareli       | 6. Dirbi       | Dirbi      | 1             | 3           |
|              | 7. Avlevi      | Avlevi     | 2             | 2           |

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<sup>1</sup>The problem of selection bias in an impact evaluation is caused by the fact that project participants differ from non-participants in characteristics that are both observable and non-observable and that affect both the decision to participate in the project and its outcome (e.g., ability or motivation). Observable characteristics (or factors) include, for example, age, gender, level of education, poverty status, geographic location, etc. Unobservable characteristics include, for example, ambition, risk orientation, diligence, commitment, etc.

|               |                   |               |    |    |
|---------------|-------------------|---------------|----|----|
|               | 8. Bredza         | Bredza        | 4  | 5  |
|               | 9. Breți          | Breți         | 4  | 8  |
|               | 10. Breți         | Sagolasheni   | 4  | 0  |
|               | 11. Dvani         | Dvani         | 5  | 6  |
|               | 12. Dvani         | Takhtisdziri  | 3  | 3  |
|               | 13. Mokhisi       | Mokhisi       | 9  | 10 |
|               | 14. Akahalsofeli  | Akahalsofeli  | 14 | 0  |
|               | 15. Giganti       | Sasireti      | 2  | 0  |
| Total Kareli  |                   |               | 85 |    |
| Dusheti       | 16. Chonkadze     | Aragvispiri   | 3  | 3  |
|               | 17. Dusheti       | Dusheti       | 10 | 10 |
|               | 18. Dusheti       | Bazaleti      | 2  | 0  |
|               | 19. Magaroskari   | Chargali      | 2  | 0  |
| Total Dusheti |                   |               | 30 |    |
| Kazbegi       | 20. Gergeti       | Gergeti       | 9  | 9  |
|               | 21. Arsha         | Arsha         | 2  | 2  |
|               | 22. Stepantsminda | Stepantsminda | 7  | 8  |
| Total Kazbegi |                   |               |    |    |
| Zugdidi       | 23. Akhalsopheli  | Akhalsopheli  | 2  | 2  |
|               | 24. Darcheli      | Darcheli      | 2  | 2  |
|               | 25. Didzineti     | Oireme        | 2  | 4  |
|               | 26. Ergeta        | Ergeta        | 2  | 2  |
|               | 27. Ingiri        | Ingiri        | 2  | 2  |
|               | 28. Kakhati       | Kakhati       | 2  | 4  |
|               | 29. Koki          | Koki          | 7  | 12 |
|               | 30. Kortskheli    | Kortskheli    | 3  | 3  |
|               | 31. Kortskheli    | Natsatu       | 1  | 0  |
|               | 32. Narazeni      | Narazeni      | 1  | 1  |
|               | 33. Narazeni      | Sabechviano   | 1  | 0  |
|               | 34. Oktomberi     | Oktomberi     | 8  | 9  |
|               | 35. Orsantia      | Orsantia      | 2  | 4  |
|               | 36. Orulu         | Orulu         | 2  | 4  |
|               | 37. Shamgona      | Shamgona      | 6  | 8  |

|                    |                 |              |     |    |
|--------------------|-----------------|--------------|-----|----|
|                    | 38. Tsaishi     | Bashi        | 4   | 11 |
|                    | 39. Zugdidi     | Zugdidi      | 5   | 8  |
|                    | 40. Chkaduashi  | Chkaduashi   | 2   | 0  |
|                    | 41. Chkhorია    | Chkhorია     | 3   | 3  |
| Total Zugdidi      |                 |              | 136 |    |
| Tsalendjikha       | 42. Fakhulani   | Fakhulani    | 4   | 6  |
|                    | 43. Chale       | Chale        | 5   | 5  |
|                    | 44. Tsalenjikha | Tsalenjikha  | 34  | 35 |
|                    | 45. Jvari       | Jvari        | 13  | 13 |
|                    | 46. Nakifu      | Nakifu       | 4   | 8  |
|                    | 47. Nanjaru     | Nanjaru      | 0   | 1  |
|                    | 48. Jgali       | Jgali        | 18  | 23 |
| Total Tsalendjikha |                 |              | 169 |    |
| Senaki             | 49. Senaki      | Senaki       | 20  |    |
|                    |                 |              |     |    |
| Oni                | 50. Ghari       | Ghari        | 14  | 19 |
|                    | 51. Ghari       | Tsmendaure   | 1   | 0  |
|                    | 52. Ghebi       | Ghebi        | 4   | 8  |
|                    | 53. Ghebi       | Patara Ghebi | 1   | 0  |
|                    | 54. Glola       | Glola        | 10  | 11 |
|                    | 55. Kvakhieti   | Kvakhieti    | 3   | 5  |
|                    | 56. Utsera      | Utsera       | 3   | 2  |
|                    | 57. Jvari       | Jvari        | 14  | 19 |
| Total Oni          |                 |              | 81  |    |
| Tsageri            | 58. Tvishi      | Tvishi       | 2   | 2  |
|                    | 59. Tvishi      | Orkhevi      | 2   | 2  |
|                    | 60. Lasuriashi  | Makhashi     | 2   | 0  |
|                    | 61. Lasuriashi  | Dekhisi      | 2   | 0  |
|                    | 62. Chqema      | Qulbaqi      | 2   | 0  |
| Total Tsageri      |                 |              | 14  |    |
| Lentekhi           | 63. Rtskmeuli   | Rtskmeuli    | 4   | 0  |
|                    | 64. Rtskmeuli   | Babili       | 2   | 0  |
|                    | 65. Choluri     | Fanaga       | 2   | 0  |
|                    | 66. Rtskmeuli   | Khofuri      | 2   | 0  |

|                                     |  |  |    |
|-------------------------------------|--|--|----|
| Total Lentekhi                      |  |  | 10 |
| Total Number of Villages =66        |  |  |    |
| Total Number of Sakrebulo = 66      |  |  |    |
| Total Number of Municipalities = 10 |  |  |    |

The sample size and sampling distribution described above differs from the sample size and sampling distribution described in the original Evaluation Design Plan. This discrepancy is due to multiple difficulties encountered by the survey team in the field. These difficulties and how we dealt with them are discussed at length in Annex 8.

In addition to this, the final baseline sample revealed numerous significant differences between the treatment and control groups in terms of respondent and household demographics and household economic conditions. Because of the difficulties and cost involved in creating separate/matched comparisons for each of the target populations, we opted (with USAID approval) to create a single control group within the study communities. While this approach increased the feasibility of the evaluation design, it did have the effect of contributing to the above-mentioned differences between the treatment and control groups. We propose to deal with these discrepancies in the endline analysis through the use of econometrics and propensity score matching. Annex 8 describes our approach to this in greater detail.

In addition to the impact survey, the evaluation implements a suite of qualitative research activities and utilizes secondary information as part of the mixed-methods design. Mixed-methods designs leverage the strengths of both quantitative and qualitative evaluation techniques to produce the breadth and depth of learning necessary to understand the project’s impact on communities, households, and individuals. A mixed-methods design also helps triangulate multiple sources of information to produce more accurate and credible evidence of project impact. In cases where we may not be able to claim attribution with high levels of statistical credibility, triangulating evidence from multiple sources will allow us to make more credible arguments of plausible attribution.

To summarize, the mixed-methods design uses a combination of the following four evaluation methods:

1. Quasi-experimental panel survey of sample households located in treatment (beneficiary) and control (non-beneficiary) communities.

2. Multi-stage cluster sampling approach with 1,730 respondents from 66 treatment and control villages.
3. In-depth, semi-structured individual interviews with project stakeholders.
4. Focus group discussions with residents of treatment communities
5. Secondary research of documents and statistics, including primarily data from NEO's performance monitoring system.

In creating this research design, it is important to note that that we were subject to hard budget constraints that served to limit the design options available. Budget constraints affected all aspects of the research design, including the sample size, location of control communities, and the number and location of key informant interviews and FGDs. In the end, we had to make numerous concessions to the budget constraints in developing the research design, many of which involved a tradeoff between methodological rigor and cost/ feasibility. These concessions and tradeoffs are described in greater depth in Annex 8.

## **5.2 Survey Instruments**

The Component 2-3 survey used two survey instruments, one for beneficiaries of the NEO vocational education intervention and one for the beneficiaries of the NEO rural economic development and other vulnerable households interventions. Because of the inherent differences between the vocational education intervention and the other Component 2-3 interventions, which tended to focus on strengthening on-farm and (to a lesser extent) non-farm self-employment activities, it made sense to use separate surveys to capture the baseline conditions/results of the vocational education intervention and those of the other Component 2-3 interventions.

The vocational education survey includes the following seven sections:

1. Household Demographics—This section measures the demographic characteristics of the respondent and the respondent's household.
2. Household Economic Conditions—This section measures different dimensions of household economic well-being, including economic self-perceptions, durable asset ownership, livestock

ownership, coping strategies, expenditures, social assistance, housing conditions, access to services, productive land ownership, and agricultural production.

3. Employment History—This section measures the respondents' employment history in the following areas: salary or wage employment, agricultural self-employment, and non-agricultural self-employment.
4. Outcome of Vocational Education Course—This section measures whether the respondents' found employment at the conclusion of the vocational education course and what types of employment they found.
5. Information on Current Employment—The section collects detailed information on the current employment held by the survey respondents, including salary or wage employment, agricultural self-employment, and non-agricultural self-employment.
6. Satisfaction with Vocational Education—The section measures the respondents' perceptions of the vocational education course related to such things as its quality, relevance, and usefulness.
7. Access to Credit—This section measures whether the respondents have applied for credit, whether they received it, and what the loan terms were.

The rural economic development survey includes the following 12 sections:

1. Household Demographics—This section measures the demographic characteristics of the respondent and the respondent's household.
2. Household Economic Conditions—This section measures different dimensions of household economic well-being, including economic self-perceptions, durable asset ownership, livestock ownership, coping strategies, expenditures, social assistance, housing conditions, access to services, productive land ownership, and agricultural production.
3. Vegetable and Grain Production—This section measures respondents' production of vegetables and grains, including the types produced, volume produced, volume produced per production unit, volume and value sold, income earned, and employment.
4. Cane Fruit Production—This section measures respondents' production of cane fruits, including the types produced, volume produced, volume produced per production unit, volume and value sold, income earned, and employment.

5. Stone Fruit and Hazelnut Production—This section measures respondents' production of stone fruits and hazelnuts, including the types produced, volume produced, volume produced per production unit, volume and value sold, income earned, and employment.
6. Beekeeping—This section measures respondents' production of bulk honey, including the volume produced, volume produced per production unit, volume and value sold, income earned, and employment.
7. Livestock and Small Animals—This section measures respondents' production of livestock and small animals (primarily poultry), including the volume produced, volume produced per production unit, volume and value sold, income earned, and employment.
8. Adoption of New Technologies and Practices—This section measures respondents' adoption of new production practices and technologies, the area (hectarage) covered by the practice or technology, the respondents' evaluation of the practices and technologies, and whether the respondents intend to adopt the technologies and practices in the coming production season.
9. Extension Services—The purpose of this section was to measure whether respondents received agricultural extension services in the past, what kind of services they received, and from whom. It turned out, however, that none of the respondents had received extension services from service providers other than NEO, so we decided to drop this section from the baseline survey analysis.
10. Enterprise Production—This section measures respondents' microenterprise production or service delivery, including the type of enterprise operated, volume produced, volume produced per production unit, volume and value sold, income earned, and employment.
11. Business Development Services—The purpose of this section was to measure whether respondents received business development services in the past, what kind of services they received, and from whom. It turned out, however, that none of the respondents had received business development services from service providers other than NEO, so we decided to drop this section from the baseline survey analysis.
12. Access to Credit—This section measures whether the respondents have applied for credit, whether they received it, and what the loan terms were.

Copies of the two survey questionnaires are provided in Annexes3 and 4 of this report.

## 6 BASELINE FINDINGS FOR VOCATIONAL EDUCATION SURVEY

This section presents the findings of the vocational education survey. The findings are reported according to, and in the order of, the seven survey sections described above. Where relevant, we report the P-values, which tell us whether the difference between the treatment and control group is statistically significant.<sup>2</sup> Following common statistical practice, we consider a p-value of .10 or less to be statistically significant.

### 6.1 Household Demographics

*Household Size:* The average size of respondent households varies from 1-9 members with an average of 3.7 members. Twenty-four percent of respondent households consist of four members, while 10.4% have a single member. Treatment households average 4.0 members, while control households average 3.5 members, and the difference is statistically significant.

**Table 3 Household Size**

| Treatment | Control | Total |
|-----------|---------|-------|
| 4.0       | 3.5     | 3.7   |

*P-value=.00*

*Age:* The average age of survey respondents is 43.2 years. The average age among treatment respondents is 36.6 years compared to 49.5 years among control respondents. The difference is statistically significant.

**Table 4 Age**

| Treatment | Control | Total |
|-----------|---------|-------|
| 36.6      | 49.5    | 43.2  |

*P-value=.00*

---

<sup>2</sup> The P value, or calculated probability, is the estimated probability of rejecting the null hypothesis (no difference between the treatment and control group) when it is true.

*Gender:* Women make up 56.3% of survey respondents, including 46.6% of treatment respondents and 65.8% of control respondents, with the difference being statistically significant. The over representation of women in the survey is explained by the difficulty of finding men at home during the day during the August-September cropping season in which the survey was implemented.

**Table 5 Gender**

|        | Treatment (%) | Control (%) | Total (%) |
|--------|---------------|-------------|-----------|
| Male   | 53.4          | 34.2        | 43.7      |
| Female | 46.6          | 65.8        | 56.3      |

*P-value=.00*

*Relationship to Household Head:* About 43% of survey respondents were the head of the household, including 42.1% of treatment respondents and 44.0% of control respondents. Another 16.7% of treatment respondents were the spouses of the household head, while 30.9% were the son or daughter of the household head. In contrast, 38.3% of control respondents were the spouses of the household head, while only 9.5% were the son or daughter of the household head. A relatively small percentage of respondents in both groups were the parent, in-law, grandchild, or sibling of the household head.

**Table 6 Relationship to Head of Household**

|                                    | Treatment (%) | Control (%) | Total (%) |
|------------------------------------|---------------|-------------|-----------|
| Head of household                  | 42.1          | 44.0        | 43.1      |
| Spouse                             | 16.7          | 38.3        | 27.6      |
| Son/Daughter                       | 30.9          | 9.5         | 20.1      |
| Mother/Father                      | 0.0           | 0.6         | 0.3       |
| Son-brother-daughter-sister-in-law | 6.1           | 6.0         | 6.1       |
| Grandson/ Granddaughter            | 4.2           | 0.6         | 2.4       |
| Sister/Brother                     | 0.0           | 0.9         | 0.5       |

*Marital Status:* Nearly two-thirds of survey respondents are married, another 26.8% are single, and 9.6% are widowed. Treatment respondents were more likely to be single than control respondents, while control respondents were more likely to be married and widowed than treatment respondents. The difference between treatment and control groups is statistically significant.

**Table 7 Marital Status**

|                      | Treatment (%) | Control (%) | Total (%) |
|----------------------|---------------|-------------|-----------|
| Single               | 38.6          | 15.2        | 26.8      |
| Married              | 54.7          | 68.7        | 61.7      |
| Divorced / Separated | 1.9           | 1.9         | 1.9       |
| Widowed              | 4.8           | 14.2        | 9.6       |

*P-value = .00*

*Ethnicity:* Over 99% of respondents in both treatment and control groups are ethnic Georgians.

**Table 8 Ethnicity**

|          | Treatment (%) | Control (%) | Total (%) |
|----------|---------------|-------------|-----------|
| Georgian | 99.4          | 99.1        | 99.2      |
| Armenian | 0.3           | 0.3         | 0.3       |
| Ossetian | 0.3           | 0.6         | 0.5       |

*Number of income earners:* Respondent households in the treatment and control groups had on average 2.1 income earners in the household.

**Table 9 Number of Income Earners**

| Treatment | Control | Total |
|-----------|---------|-------|
| 2.1       | 2.1     | 2.1   |

*P-value=.88*

*Employment status:* Just under 40% of treatment respondents reported farming as their primary employment compared to 54.1% of control respondents. Treatment respondents were also more likely than control respondents to be self-employed in non-farm activities, intermittently employed or unemployed and looking, while control respondents were more likely than treatment respondents to be a pensioner.

**Table 10 Employment Status**

|                                    | Treatment (%) | Control (%) | Total (%) |
|------------------------------------|---------------|-------------|-----------|
| Farming                            | 39.9          | 54.1        | 47.0      |
| Self employed in non-farm activity | 11.9          | 3.5         | 7.7       |
| Intermittently employed            | 12.2          | 3.2         | 7.7       |
| Employment in public sector        | 8.4           | 9.5         | 8.9       |
| Employment in private sector       | 2.9           | 3.2         | 3.0       |
| Unemployed seeking                 | 15.1          | 7.3         | 11.2      |
| Unemployed not seeking             | 1.0           | 0.0         | 0.5       |
| Pensioner                          | 5.1           | 19.3        | 12.3      |
| Student                            | 3.5           | 0.0         | 1.4       |

*Most important sources of household income:* The sources of household income are similar across the treatment and control groups with farming as the most important source of income followed by pension income and employment in the public sector.

**Table 31 Most Important Sources of Household Income**

|                                                                             | Treatment (%)  |                                |                                | Control (%)    |                                |                                | Total (%)      |                                |                                |
|-----------------------------------------------------------------------------|----------------|--------------------------------|--------------------------------|----------------|--------------------------------|--------------------------------|----------------|--------------------------------|--------------------------------|
|                                                                             | Most Important | 2 <sup>nd</sup> Most Important | 3 <sup>rd</sup> Most Important | Most Important | 2 <sup>nd</sup> Most Important | 3 <sup>rd</sup> Most Important | Most Important | 2 <sup>nd</sup> Most Important | 3 <sup>rd</sup> Most Important |
| Self employed in farming--livestock and agriculture                         | 42.3           | 46.4                           | 41.5                           | 49.5           | 43.7                           | 32.4                           | 46.0           | 45.3                           | 35.7                           |
| Self employed in own business or professional activity unrelated to farming | 6.2            | 5.8                            | 12.2                           | 1.6            | 1.6                            | 0.0                            | 3.9            | 4.1                            | 4.5                            |
| Intermittently employed or works from time to time                          | 6.7            | 5.8                            | 7.3                            | 3.3            | 4.3                            | 1.4                            | 5.0            | 5.2                            | 3.6                            |
| Permanently employed—state or public sector                                 | 6.6            | 7.3                            | 2.4                            | 7.3            | 14.6                           | 19.7                           | 6.9            | 10.3                           | 13.4                           |
| Permanently employed-private sector                                         | 3.6            | 1.8                            | 4.9                            | 5.7            | 5.8                            | 16.9                           | 4.7            | 3.4                            | 12.5                           |
| Unemployed—seeking employment in the last month                             | 9.2            | 3.9                            | 4.9                            | 9.6            | 6.2                            | 1.4                            | 9.4            | 4.8                            | 2.7                            |
| Unemployed—not seeking employment in past month                             | 6.8            | 3.5                            | 0.0                            | 5.0            | 4.5                            | 2.8                            | 5.9            | 3.9                            | 1.8                            |
| Pensioner                                                                   | 15.5           | 22.3                           | 19.5                           | 16.2           | 17.1                           | 23.9                           | 15.9           | 20.2                           | 22.3                           |

|                                      |     |     |     |     |     |     |     |     |     |
|--------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Unfit or of limited fitness for work | 2.2 | 1.8 | 2.4 | 1.0 | 1.0 | 0.0 | 1.6 | 1.5 | 0.9 |
| Other                                | 0.9 | 1.4 | 4.9 | 0.8 | 1.0 | 1.4 | 0.8 | 1.2 | 2.7 |

*Education level:* One-half of respondents in both treatment and control groups have completed a general secondary education, while around one-quarter in each group have completed a specialized secondary education. Compared to treatment respondents, control respondents were more likely to have completed higher education, while treatment respondents were slightly more likely to have started but not completed both higher education and secondary education. The difference between treatment and control groups are not statistically significant.

**Table 42 Education Level**

|                                  | Treatment (%) | Control (%) | Total (%) |
|----------------------------------|---------------|-------------|-----------|
| Illiterate                       | 0.0           | 0.0         | 0.0       |
| Elementary                       | 0.0           | 0.6         | 0.3       |
| Incomplete secondary             | 5.5           | 2.2         | 3.8       |
| Complete secondary (general)     | 50.5          | 50.6        | 50.6      |
| Complete secondary (specialized) | 24.8          | 22.5        | 23.6      |
| Incomplete higher                | 4.8           | 0.9         | 2.9       |
| Higher                           | 14.5          | 23.1        | 18.8      |
| Degree / Post-graduate           | 0.0           | 0.0         | 0.0       |

*P-value=.62*

*Comparison of treatment and control groups:* The similarity between treatment and control groups on respondent and household demographic characteristics is a mixed bag. Treatment group respondents significantly differ from control group respondents in terms of household size, marital status, age, and gender, but no significant differences exist between the groups in terms of respondent employment status, number of income earners, main sources of household income, respondent education level, and ethnicity.

## 6.2 Household Economic Conditions

*Household Financial Conditions:* Respondents were asked to assess the financial condition of their household on a 5-point scale with 1 meaning 'very bad' and 5 meaning 'very good.' Almost half of the respondents think that their financial conditions are 'bad' or 'very bad,' 20% rate their financial condition as 'satisfactory,' and 28% rate their financial condition as 'good' or 'very good.' There is no statistically significant difference between treatment and control group responses.

**Table 53 Household Financial Conditions**

|              | Treatment (%) | Control (%) | Total (%) |
|--------------|---------------|-------------|-----------|
| Very good    | 0.6           | 0.3         | 0.5       |
| Good         | 28.3          | 27.8        | 28.1      |
| Satisfactory | 21.5          | 19.3        | 20.4      |
| Bad          | 35.4          | 37.7        | 36.5      |
| Very bad     | 14.1          | 14.9        | 14.5      |
| Mean         | 2.7           | 2.6         | 2.6       |

*P-value= 0.56*

*Economic Status:* Respondents were asked to assess the economic status of their households on a 5-point scale based on their property status with a 1 meaning 'very poor' and 5 meaning 'very rich.' Less than 1% of respondents consider themselves to be very rich or wealthy using this measure, while 48.2% consider themselves to be poor or very poor. There is no statistically significant difference between treatment and control group responses.

**Table 64 Household Economic Status**

|              | Treatment (%) | Control (%) | Total (%) |
|--------------|---------------|-------------|-----------|
| Very rich    | 0.6           | 0.0         | 0.3       |
| Wealthy      | 1.0           | 0.3         | 0.6       |
| Middle class | 47.9          | 53.8        | 50.9      |
| Poor         | 38.9          | 36.1        | 37.5      |
| Very poor    | 11.6          | 9.8         | 10.7      |
| Mean         | 2.4           | 2.5         | 2.4       |

*P-value= 0.42*

*Ownership of household assets:* Over 80% of respondent households own a color TV set and approximately one-half own a refrigerator and satellite dish. Between 10%-20% of respondents also own a washing machine, car, DVD player, and personal computer. The percentage of respondents owning two or more of the assets in Table 15 is between 0%-5% in all cases. There is no statistically significant difference between treatment and control groups in terms of household asset ownership.

**Table 75 Assets Owned by Household**

|                     | Treatment (%) | Control (%) | Total (%) | P-value |
|---------------------|---------------|-------------|-----------|---------|
| Color TV            | 88.4          | 83.5        | 86.0      | 0.79    |
| Refrigerator        | 58.5          | 58.2        | 58.4      | 0.94    |
| Washing machine     | 15.4          | 16.8        | 16.1      | 0.65    |
| Car                 | 11.9          | 14.6        | 13.2      | 0.33    |
| DVD player          | 12.5          | 9.8         | 11.2      | 0.28    |
| Personal computer   | 15.8          | 19.0        | 17.4      | 0.28    |
| Air conditioner     | 1.6           | 0.6         | 1.1       | 0.24    |
| Vacuum cleaner      | 5.8           | 5.4         | 5.6       | 0.82    |
| Satellite dish      | 50.8          | 48.4        | 49.6      | 0.55    |
| Independent heating | 3.9           | 6.6         | 5.3       | 0.12    |

*Ownership of agricultural assets:* Fewer than 10% of households in either group own the agricultural assets listed in Table 16. The sole exception is wheelbarrows, which are owned by 16.1% of treatment households and 19.3% of control households. There is no statistically significant difference between treatment and control groups in terms of agricultural asset ownership.

**Table 86 Agricultural Assets Owned by Household**

|                     | Treatment (%) | Control (%) | Total (%) | P-value |
|---------------------|---------------|-------------|-----------|---------|
| Tractor             | 4.2           | 3.8         | 4.0       | 0.81    |
| Animal drawn plough | 1.0           | 0.6         | 0.8       | 0.64    |
| Mechanical plough   | 0.0           | 0.3         | 1.2       | 0.32    |
| Wheelbarrows        | 16.1          | 19.3        | 17.7      | 0.29    |
| Trailer             | 1.6           | 2.2         | 1.9       | 0.58    |

|                            |     |     |     |      |
|----------------------------|-----|-----|-----|------|
| Motorized thresher         | 3.9 | 6.6 | 5.3 | 0.12 |
| Hand thresher              | 1.6 | 3.5 | 2.6 | 0.14 |
| Mechanical water pump      | 4.8 | 9.5 | 7.2 | 0.23 |
| Hand water pump            | 0.0 | 2.2 | 1.1 | 0.08 |
| Mill                       | 0.3 | 0.6 | 0.5 | 0.57 |
| Motorized insecticide pump | 2.6 | 3.8 | 3.2 | 0.38 |
| Greenhouse                 | 1.3 | 0.9 | 1.1 | 0.68 |

*Change in Household Financial Conditions:* Respondents were asked to assess how their household financial conditions have changed over the last 12 months and how they expected them to change over the next 12 months. More than half of the respondents think that their conditions have not changed over the past 12 months, and 20.3% think that their conditions have worsened slightly or significantly. More than one-half of respondents do not expect their household conditions to change over the next 12 months, while 36.5% of respondents believe that their conditions will improve slightly or significantly over the next 12 months. There is no statistically significant difference between treatment and control group responses.

**Table 97 Change in Household Financial Conditions**

|                        | Treatment (%) | Control (%) | Total (%) |
|------------------------|---------------|-------------|-----------|
| Significantly worsened | 7.7           | 4.4         | 6.1       |
| Slightly worsened      | 10.6          | 17.7        | 14.2      |
| Remained the same      | 65.0          | 69.3        | 67.1      |
| Slightly improved      | 16.7          | 8.5         | 12.6      |
| Significantly improved | 7.7           | 4.4         | 6.1       |
| Mean                   | 2.5           | 2.5         | 2.5       |

*P-value=0.35*

**Table 108 Expected Change in Household Financial Conditions**

|                        | Treatment (%) | Control (%) | Total (%) |
|------------------------|---------------|-------------|-----------|
| Significantly worsened | 6.4           | 2.2         | 4.3       |
| Slightly worsened      | 1.9           | 5.4         | 3.7       |
| Remained the same      | 51.8          | 59.5        | 55.7      |
| Slightly improved      | 38.6          | 32.3        | 35.4      |
| Significantly improved | 1.3           | .6          | 1.0       |
| Mean                   | 2.9           | 2.8         | 2.9       |

*P-value=0.12*

*Coping Strategies:* The survey asked respondents a series of questions to determine if they or their households had engaged in one or more of a set of coping strategies in response to difficult economic/financial circumstances. The first set of questions asked whether the respondents were able to get by financially and possibly save or whether they had to liquidate assets to meet their financial needs. More than two-thirds of the interviewed households say they 'just got by' with their incomes over the past 12 months. Very few households spent their savings in the past 12 months to pay for household expenses, although about one quarter of respondent households had to borrow money to cover their expenses. There is no statistically significant difference between treatment and control group responses.

**Table 119 Household Coping Strategies Adopted**

|                                                  | Treatment (%) | Control (%) | Total (%) |
|--------------------------------------------------|---------------|-------------|-----------|
| Saved money                                      | 0.0           | 0.0         | 0.0       |
| Just got by                                      | 75.9          | 73.7        | 74.8      |
| Spent savings to pay household expenses          | 1.3           | 0.6         | 1.0       |
| Borrowed money to pay household expenses         | 22.5          | 24.1        | 23.3      |
| Sold household assets to pay household expenses  | 0.3           | 1.3         | 0.8       |
| Sold productive assets to pay household expenses | 0.0           | 0.3         | 0.2       |

*P-value=0.44*

Respondents were then asked to assess how often, if ever, their household had to limit the consumption of certain products and services because of the financial difficulties over the past 12 months using a 5-point scale where 1 means 'always' and 5 means 'never.' As seen in Table 20, respondents in both groups rarely or almost never had to limit consumption of any other listed items. There is no statistically significant difference between treatment and control group responses.

**Table 20 Frequency of Limiting Consumption Due to Financial Difficulties**

|                                 | Treatment (Mean) | Control (Mean) | Total (Mean) | P-value |
|---------------------------------|------------------|----------------|--------------|---------|
| Bread, khomi, pasta             | 4.3              | 4.4            | 4.3          | .215    |
| Butter, milk, cheese            | 4.1              | 3.9            | 4.0          | .463    |
| Oil                             | 4.2              | 4.2            | 4.2          | .525    |
| Meat, chicken, fish             | 3.3              | 3.3            | 3.3          | .693    |
| Fruits, vegetables              | 4.6              | 4.4            | 4.5          | .405    |
| Potatoes                        | 4.4              | 4.4            | 4.4          | .622    |
| Fuel for cooking                | 4.3              | 4.3            | 4.3          | .871    |
| Electricity for fuel or heating | 3.7              | 3.5            | 3.6          | .208    |
| Medicines or medical treatment  | 3.5              | 3.5            | 3.5          | .529    |

The survey asked a series of questions about whether members in the household ever had to go without food or go hungry and how often this happened. Fewer than 10% across the treatment and control groups answered in the affirmative on all questions. As hunger does not appear to be a problem among

these study groups, we have determined that there is little value to be gained from analyzing this question or continuing with this line of questioning in the future.

*Social Assistance:* The survey asked respondents whether they had received social assistance or participated in a government-run health insurance program in the last 12 months, along with their perceptions of these programs. More than half of respondent households applied for government-provided social assistance over the past 12 months. Almost half of those households received social assistance for at least some part of the last 12 months. The average amount of social assistance received was GEL 1,128. Nearly 100% of the households that received social assistance think that it is ‘important’ or ‘very important.’ Among those who did not apply for social assistance, the primary reasons given were that they did not think they qualified, others are worse off, or they were not poor enough.

At least one member in 80.9% of respondent households has participated in government-run health insurance services over the past year, and 94.4% of these people think that these programs are ‘important’ or ‘very important.’ There is no statistically significant difference between treatment and control group responses to questions about social assistance or government-run health insurance.

**Table 121 Receipt of Social Assistance**

|                                                          | Treatment (%) | Control (%) | Total (%) | P-value |
|----------------------------------------------------------|---------------|-------------|-----------|---------|
| Applied for Social Assistance in Last 12 Months?         |               |             |           |         |
| Yes                                                      | 60.1          | 52.8        | 56.5      | 0.66    |
| No                                                       | 39.9          | 47.2        | 43.5      |         |
| Received Social Assistance in Last 12 Months?            |               |             |           |         |
| Yes – during entire year                                 | 36.7          | 28.2        | 32.4      |         |
| Yes – during some of year                                | 15.4          | 7.9         | 11.6      |         |
| No                                                       | 47.9          | 63.9        | 56.0      |         |
| Amount received (GEL)                                    | 1166.7        | 1079.3      | 1128.5    | 0.34    |
| Participated in Government-Run Health Insurance Program? |               |             |           |         |
| Yes                                                      | 80.4          | 81.3        | 80.9      | 0.76    |
| No                                                       | 19.6          | 18.7        | 19.1      |         |

**Table 132 Reasons for Not Applying for Social Assistance**

|                                                   | Treatment (%) | Control (%) | Total (%) |
|---------------------------------------------------|---------------|-------------|-----------|
| Do not think I'm poor                             | 0.6           | 2.5         | 1.6       |
| Others are worse off                              | 6.8           | 11.7        | 9.3       |
| I didn't have hope of receiving social assistance | 13.5          | 19.3        | 16.4      |
| Do not trust system                               | 1.0           | 0.9         | 1.0       |
| I had social assistance                           | 18.0          | 12.7        | 15.3      |

*P-value=.20*

**Table 143 Perceived Importance of Social Assistance**

|                  | Treatment (%) | Control (%) | Total (%) |
|------------------|---------------|-------------|-----------|
| Very important   | 65.0          | 55.1        | 60        |
| Important        | 30.5          | 40.2        | 35.4      |
| Unimportant      | 3.5           | 4.1         | 3.8       |
| Very unimportant | 1.0           | 0.6         | 0.8       |
| Mean             | 3.6           | 3.5         | 3.6       |

*P-value=.44*

**Table 154 Perceived Importance of Government-Run Health Insurance**

|                  | Treatment (%) | Control (%) | Total (%) |
|------------------|---------------|-------------|-----------|
| Very important   | 68.2          | 66.8        | 67.5      |
| Important        | 28.6          | 30.4        | 29.5      |
| Unimportant      | 3.2           | 2.2         | 2.7       |
| Very unimportant | 0.3           | 0.6         | 0.3       |
| Mean             | 3.7           | 3.6         | 3.6       |

*P-value=.71*

*Household Expenditures:* The survey asked a series of questions about the respondent households' weekly, monthly, and yearly expenditures, including the cash value, imputed value of home produced goods and services, and the imputed value of gifted goods and services. The expenditure values were totaled, adjusted to represent daily expenditures, and divided by the number of household members to arrive at the daily per capita household expenditures. The daily per capita household expenditures among respondent households averaged GEL 3.19 with food expenditures accounting for 67.7% of total household expenditures on average. No statistically significant differences were found between treatment and control households.

**Table 165 Household Expenditures**

|                                               | Treatment | Control | Total | P-value |
|-----------------------------------------------|-----------|---------|-------|---------|
| Daily per capita household expenditures (GEL) | 3.16      | 3.21    | 3.19  | 0.26    |
| Food expenditures as % of total expenditures  | 70.9%     | 64.5%   | 67.7% | 0.83    |

*Housing Status:* Another measure of household well-being is its housing status. Over 80% of respondents in both groups own their home. The average size of the living space is 86 m<sup>2</sup> (925 feet<sup>2</sup>) and includes 4.4 rooms and 2.4 bedrooms. No statistically significant differences were found between treatment and control households.

**Table 17 Housing Ownership Status**

|                         | Treatment (%) | Control (%) | Total (%) |
|-------------------------|---------------|-------------|-----------|
| Own                     | 82.0          | 89.2        | 85.6      |
| Rent                    | 0.0           | 0.3         | 0.2       |
| Mortgaged               | 0.3           | 0.0         | 0.2       |
| Provided free occupancy | 17.7          | 10.4        | 14.0      |

*P-value=.20*

**Table 18 Size of House**

|                       | Treatment | Control | Total | P-value |
|-----------------------|-----------|---------|-------|---------|
| Area in square meters | 101.1     | 113.7   | 107.6 | 0.14    |

|                       |     |     |     |      |
|-----------------------|-----|-----|-----|------|
| Total number of rooms | 4.3 | 4.4 | 4.4 | 0.26 |
| Number of bedrooms    | 2.4 | 2.4 | 2.4 | 0.26 |

*Access to Services:* Yet another measure of household well-being is its access to services, such as electricity, phone, gas, water, etc. Over 80% of households have electricity, wood burning heating, and mobile phones, while around 40% or more of households have liquid gas supply in their homes, and another 20% or so have central gas supply. No statistically significant differences were found between treatment and control households with the exception of mobile phone ownership where a higher percentage of treatment households own mobile phones than control households.

**Table 198 Access to Services**

|                                  | Treatment (%) | Control (%) | Total (%) | P-value |
|----------------------------------|---------------|-------------|-----------|---------|
| Hot water - individual system    | 12.5          | 14.2        | 13.4      | 0.53    |
| Electricity                      | 98.4          | 97.2        | 97.8      | 0.29    |
| Gas supply - central             | 20.9          | 17.4        | 19.1      | 0.27    |
| Liquid gas supply - gas balloons | 38.6          | 44.3        | 41.5      | 0.15    |
| Electric Heating - individual    | 4.2           | 0.9         | 2.6       | 0.10    |
| Gas heating - paid               | 2.9           | 2.2         | 2.6       | 0.59    |
| Gas heating – state provided     | 7.7           | 7.0         | 7.4       | 0.64    |
| Wood burning heating             | 81.0          | 78.8        | 79.9      | 0.49    |
| Landline telephone               | 3.9           | 5.4         | 0.0       | 0.36    |
| Internet                         | 8.4           | 11.1        | 9.6       | 0.26    |
| Mobile phone                     | 87.1          | 75.3        | 81.2      | 0.00    |

*Livestock Ownership:* Almost two-thirds of respondent households have owned an average of eight poultry over the past 12 months. Another 44.5% of respondents owned cows, nearly one-fourth of the households owned a calf, and 17.7% of households owned pigs. Ownership of bulls, horses, sheep, rabbits, goats, beehives and donkeys was around 5% or less of respondent households. Livestock ownership is broadly similar among treatment and control households, although there are some significant differences in terms of the number of houses owning calves, horses, rabbits, and beehives.

**Table 209 Livestock Ownership**

|          | Treatment (%) | Control (%) | Total (%) | P-value |
|----------|---------------|-------------|-----------|---------|
| Cows     | 41.5          | 47.5        | 44.5      | 0.13    |
| Bulls    | 4.2           | 3.8         | 4.0       | 0.80    |
| Calves   | 21.5          | 29.7        | 25.7      | 0.02    |
| Sheep    | 1.6           | 0.6         | 1.1       | 0.24    |
| Goats    | 0.3           | 0.9         | 0.6       | 0.32    |
| Pigs     | 17.0          | 18.4        | 17.7      | 0.67    |
| Poultry  | 50.8          | 54.1        | 52.5      | 0.41    |
| Donkeys  | 1             | 1.3         | 1.1       | 0.72    |
| Horses   | 4.2           | 0.6         | 2.4       | 0.04    |
| Rabbits  | 5.8           | 2.5         | 4.1       | 0.04    |
| Beehives | 20.3          | 3.5         | 11.8      | 0.00    |

*Productive Land Ownership:* One in every five households does not cultivate any plot of land at all. The majority (52.8%) of respondents that are involved in cultivation use a single plot for this purpose. Only 7.8% of respondents cultivate more than two plots of land. The average number of plots worked per household is 1.2, while the average size of plots cultivated is 0.31 hectares. No statistically significant differences were found between treatment and control households.

**Table 30 Land Used for Cultivation**

| Number of Plots | Treatment (%) | Control (%) | Total (%) |
|-----------------|---------------|-------------|-----------|
| 0               | 21.9          | 17.1        | 19.5      |
| 1               | 55.6          | 50.0        | 52.8      |
| 2               | 15.8          | 24.1        | 19.9      |
| 3               | 3.2           | 7.0         | 5.1       |
| 4               | 1.6           | 1.3         | 1.4       |
| 5               | 1.3           | 0.3         | 0.8       |
| 6               | 0.6           | 0.3         | 0.5       |

|      |     |     |     |
|------|-----|-----|-----|
| Mean | 1.1 | 1.3 | 1.2 |
|------|-----|-----|-----|

*P-value=.66*

The average plot size is significantly larger among control respondents at .34 hectares compared to .27 hectares among treatment respondents. The difference appears to stem from the fact that control respondents rent more land from private persons than do treatment respondents.

**Table 211 Land Area (Hectares)**

| Area of the land             | Treatment | Control | Total | P-value |
|------------------------------|-----------|---------|-------|---------|
| Owned                        | 0.27      | 0.35    | 0.31  | .06     |
| Rented Total                 | 0.00      | 0.00    | 0.00  | .42     |
| Rented from state            | 0.00      | 0.00    | 0.00  | .38     |
| Rented from a private person | 0.00      | 0.64    | 0.04  | .08     |
| Total area                   | 0.27      | 0.34    | 0.31  | .07     |
| Average plot size (hectares) | 0.27      | 0.34    | 0.31  | .07     |

*Comparison of treatment and control groups:* Treatment and control respondents are remarkably similar on measures of household economic conditions. With only two exceptions, livestock ownership and average plot size, there are no statistically significant differences between the two groups on multiple measures of household economic conditions.

### 6.3 Employment History

*Previous employment over last 12 months:* Over 50% of treatment and control respondents had worked to earn income over the last 12 months. Of these, about one-third of treatment respondents had full-time permanent or full-time temporary work compared to around 95% of control respondents. The difference in the latter case is statistically significant.

**Table 222 Previous Employment**

|                      | Treatment (%) | Control (%) | Total (%) | P-value |
|----------------------|---------------|-------------|-----------|---------|
| Employed             | 55.9          | 57.3        | 56.5      | .74     |
| Full-time, permanent | 34.5          | 73.5        | 54.4      | .00     |
| Full-time, temporary | 33.9          | 22.7        | 28.2      |         |
| Part-time, permanent | 10.3          | 2.2         | 6.2       |         |
| Part-time, temporary | 21.3          | 1.7         | 11.3      |         |

*Type of employment over last 12 months:* Nearly one-half of treatment respondents were self-employed in agriculture compared to 70% of control respondents followed in order by employment for salary or wage and self-employed in non-agriculture. The difference between the two groups is statistically significant.

**Table 233 Employment Type**

|                                  | Treatment (%) | Control (%) | Total (%) | P-value |
|----------------------------------|---------------|-------------|-----------|---------|
| Employed for salary or wage      | 39.1          | 24.3        | 31.5      | .00     |
| Self-employed in agriculture     | 46.0          | 70.3        | 58.2      | .00     |
| Self-employed in non-agriculture | 16.7          | 1.1         | 8.7       | .00     |

*Reasons for not working over last 12 months:* Of those who did not work, over 60% of treatment respondents were not able to find work compared to just under 50% of control respondents, followed at a distance by those who did not want to work, those who were still at school, and those who were too old or retired. The difference between the two groups is statistically significant.

**Table 244 Reasons for Not Working**

|                       | Treatment (%) | Control (%) | Total (%) |
|-----------------------|---------------|-------------|-----------|
| Did not want to work  | 4.4           | 16.3        | 10.3      |
| Illness or disability | 2.2           | 4.4         | 3.3       |
| Still at school       | 14.6          | 0.7         | 7.7       |
| Too old, retired      | 1.5           | 12.6        | 7.0       |

|                                |      |      |      |
|--------------------------------|------|------|------|
| Unable to find work            | 63.5 | 48.9 | 56.3 |
| Had to care for family members | 5.8  | 3.7  | 4.8  |
| No response                    | 8.0  | 13.3 | 10.7 |

*P-value=.00*

*Comparison of treatment and control groups:* Compared to the control group, treatment group respondents were equally likely to have been employed over the last 12 months, although treatment respondents were more likely to be employed for a salary/wage or in the non-agricultural sector in temporary positions, compared to control respondents who were more likely to be permanently employed in full-time jobs.

### 6.3.1 Wage/Paid Employment

*Earnings from wage/paid employment over last 12 months:* Of those who had wage or paid employment over the last 12 months, treatment respondents earned on average GEL 1,730 over the past 12 months compared to GEL 3,149 among control respondents. The difference between the two groups is statistically significant.

**Table 255 Earnings in Last 12 Months**

|          | Treatment | Control | Total |
|----------|-----------|---------|-------|
| Earnings | 1,730     | 3,149   | 2,282 |

*P-value=.00*

*Types of wage/paid employment:* Nearly one-half of treatment respondents worked for a private person over the last 12 months compared to 9.1% of control respondents. Another 39.7% of treatment respondents worked for a government organization compared to 59.1% of control respondents. The difference between the two groups is statistically significant.

**Table 266 Types of Employment**

| Employer                           | Treatment (%) | Control (%) | Total (%) |
|------------------------------------|---------------|-------------|-----------|
| Private person                     | 47.1          | 9.1         | 37.5      |
| Private firm                       | 8.8           | 18.2        | 12.5      |
| Government organization            | 39.7          | 59.1        | 47.3      |
| Local NGO/development organization | 1.5           | 4.5         | 0.9       |

|                                            |     |     |     |
|--------------------------------------------|-----|-----|-----|
| International NGO/development organization | 2.9 | 9.1 | 1.8 |
|--------------------------------------------|-----|-----|-----|

*P-value=.00*

*Type of work performed:* Treatment respondents were more likely to have worked in other services, construction, and education over the last 12 months, while control respondents significantly more likely to have worked in education and administrative/office work and significantly less likely to have worked in construction than treatment respondents.

**Table 277 Type of Work**

|                                 | Treatment (%) | Control (%) | Total (%) |
|---------------------------------|---------------|-------------|-----------|
| Farming/agriculture             | 4.4           | 0           | 2.7       |
| Construction/Repair/maintenance | 25.0          | 4.5         | 17.0      |
| Retail sales                    | 2.9           | 4.5         | 3.6       |
| Agriculture/food processing     | 0             | 4.5         | 1.8       |
| Food preparation or service     | 7.4           | 2.3         | 5.4       |
| Education                       | 11.8          | 34.1        | 20.5      |
| Healthcare                      | 1.5           | 4.5         | 2.7       |
| Other service                   | 32.4          | 27.3        | 30.4      |
| Assembly/manufacturing          | 4.4           | 0           | 2.7       |
| Administrative/office work      | 5.9           | 15.9        | 9.8       |

*P-value=.00*

*Hours worked:* Of those who had wage or paid employment over the last 12 months, treatment respondents worked on average 1,256 hours over the this time period compared to 1,798 among control respondents. The difference between the two groups is statistically significant.

**Table 288 Hours Worked**

|              | Treatment | Control | Total |
|--------------|-----------|---------|-------|
| Hours worked | 1,256     | 1,798   | 1,787 |

*P-value=.00*

*Employment arrangements:* Of those who had wage or paid employment over the last 12 months, 64.7% of treatment respondents worked with registered firms, 16.2% received medical benefits, and 44.1% had a written employment agreement compared to, respectively, 86.4%, 59.1%, and 77.3% of control respondents. The difference between the two groups is statistically significant.

**Table 299 Characteristics of Employment Arrangements**

|                              | Treatment (%) | Control (%) | Total (%) | P-value |
|------------------------------|---------------|-------------|-----------|---------|
| Registered                   | 64.7          | 86.4        | 73.2      | 0.03    |
| Provide medical benefits     | 16.2          | 59.1        | 33.0      | 0.00    |
| Written employment agreement | 44.1          | 77.3        | 57.1      | 0.00    |

*Comparison of treatment and control groups:* Of those survey respondents who had wage or paid employment over the last 12 months, control respondents were significantly more likely than treatment respondents to have worked for a registered private firm or government organization (as opposed to a private person), worked more hours, earned more money, received medical benefits, and had a written employment agreement. Thus it appears that NEO has selected participants for the vocational education course who are worse off in terms of wage/paid employment than the average village members. This suggests in turn that NEO has successfully targeted its vocational education course to those who stand in greater need of it.

### 6.3.2 Agricultural Self-Employment

*Type of agricultural self-employment:* During the past 12 months, treatment respondents engaged in agricultural self-employment were involved more or less equally in vegetable, pulse, potato, and grain/staple production. Control respondents were also mostly engaged in the same agricultural production activities, although they were more likely to be involved in vegetable production and less likely to be involved in grain/staple production.

**Table 40 30Type of Agrcultural Self-Employment**

|            | Treatment (%) | Control (%) | Total (%) |
|------------|---------------|-------------|-----------|
| Vegetables | 22.6          | 36.0        | 30.4      |
| Fruits     | 3.9           | 2.8         | 3.3       |

|                         |      |      |      |
|-------------------------|------|------|------|
| Tree fruits             | 0.0  | 1.4  | 0.8  |
| Nuts                    | 5.2  | 9.8  | 7.9  |
| Pulses                  | 19.4 | 19.6 | 19.5 |
| Potatoes                | 18.7 | 16.4 | 17.3 |
| Grains/staples          | 21.3 | 12.6 | 16.3 |
| Aquaculture             | 0.0  | 0.0  | 0.0  |
| Forestry                | 0.0  | 0.0  | 0.0  |
| Beekeeping/honey        | 9.0  | 1.4  | 4.6  |
| Livestock/small animals | 0.0  | 0.0  | 0.0  |

*P-value=.01*

*Primary sources of agricultural income:* The primary source of agricultural income for treatment respondents was potatoes followed grains/staples, nuts, vegetables, pulses, and beekeeping. These were also the primary sources of agricultural income for the control respondents, although for them nuts were a most significant source of income and pulses and beekeeping were less significant sources of income.

**Table 311 Primary Source of Agricultural Income**

|                  | Treatment (%) | Control (%) | Total (%) |
|------------------|---------------|-------------|-----------|
| Vegetables       | 14.7          | 11.3        | 12.6      |
| Fruits           | 2.1           | 2.3         | 2.2       |
| Tree fruits      | 0.7           | 0.0         | 0.3       |
| Nuts             | 18.2          | 31.1        | 26.0      |
| Pulses           | 9.8           | 4.5         | 6.6       |
| Potatoes         | 25.9          | 28.4        | 27.4      |
| Grains/staples   | 18.9          | 18.9        | 18.9      |
| Beekeeping/honey | 7.0           | 1.4         | 3.6       |
| Grapes           | 0.7           | 0.5         | 0.5       |
| Cauliflower      | 1.4           | 0.0         | 0.5       |
| N/A              | 0.7           | 1.8         | 1.4       |

*P-value=.01*

*Income from agricultural self-employment:* Agricultural income after expenses averaged GEL 878 among treatment respondents engaged in agricultural self-employment compared to GEL 1,590 for control respondents. The difference, however, is not statistically significant.

**Table 322 Agricultural Income**

|        | Treatment | Control | Total |
|--------|-----------|---------|-------|
| Income | 878       | 1,590   | 1,291 |

*P-value=.53*

*Comparison of treatment and control groups:* Treatment and control respondents are involved in much the same agricultural activities, although the importance of each activity as an income source varies with treatment respondents earning less from nut production but more from pulse production and beekeeping. Control respondents on average, however, earn nearly double from agricultural activities than do treatment respondents.

## 6.4 Outcome of Vocational Education Course

*Participation in business/job training:* When asked if they had participated in a business/job training course in the last 12 months, 100% of treatment respondents said ‘Yes’ compared to only 3.5% of control respondents. In 98.1% of cases, treatment respondents cited NEO (and its affiliates) as the source of training, while the few control respondents who had received training cited private organizations as the primary source of training.

**Table 333 Receipt of Business/Job Training in Last 12 Months**

|                               | Treatment (%) | Control (%) | Total (%) |
|-------------------------------|---------------|-------------|-----------|
| Yes                           | 100.0         | 3.5         | 51.35     |
| If Yes, how long ago was this |               |             |           |
| 2-4 months                    | 16.7          | 0.9         | 20.7      |
| 5-7 months                    | 20.3          | 0.0         | 23.7      |
| 8-12 months                   | 35.7          | 2.2         | 44.4      |
| More than 1 year              | 9             | 0.3         | 10.9      |
| Don't remember                | 18.3          | 0.0         | 17.7      |

*Reasons for participating in vocational education:* The primary reasons given by treatment respondents for taking the vocational education course were to re-enter the workforce and increase their income followed in importance by wanting to increase their work skills and wanting a better job.

**Table 344 Reasons for Participating in Vocational Education Course**

|                                   | Treatment (%) |
|-----------------------------------|---------------|
| Wanted better job                 | 16.7          |
| Wanted to increase income         | 26.4          |
| Wanted to re-enter the workforce  | 30.9          |
| Wanted to start own business      | 3.2           |
| Wanted to increase independence   | 3.9           |
| Wanted to increase my work skills | 19.0          |

*Sources of information about vocational education course:* The primary sources of information about the vocational training course were USAID/NEO followed closely by municipal officials and friends or family. Communities meetings and casual acquaintances were another notable source of information about the vocational education course.

**Table 355 Sources of Information about Vocational Education Course**

|                                   | Treatment (%) |
|-----------------------------------|---------------|
| Community meeting                 | 11.3          |
| Municipal officials               | 28.9          |
| Friends or family                 | 21.5          |
| Casual acquaintances              | 6.8           |
| Multi-media (radio, TV, internet) | 0.6           |
| Posters, leaflets, signs          | 1.0           |
| USAID/NEO/AIC/CIDA/CHCA           | 29.3          |

*Employment after completing vocational education course:* Of the 311 persons who completed the NEO-sponsored vocational education course, 90 (28.9%) found regular employment, including 27 (11.9%) in non-agricultural self-employment, 29 (9.3%) in agricultural self-employment, and 24 (7.7%) in salary or wage employment. Fourteen of these individuals (4.5%) found work with their previous employer.

**Table 366 Found Regular Employment after Vocational Education Course**

|     | Treatment (N) | Treatment (%) |
|-----|---------------|---------------|
| Yes | 90            | 28.9          |
| No  | 221           | 71.1          |

**Table 377 Type of Employment Found after Vocational Education Course**

|                                  | Treatment (N) | Treatment (% Overall) | Treatment (% Those Finding Work) |
|----------------------------------|---------------|-----------------------|----------------------------------|
| Salary or wage employment        | 24            | 7.7                   | 26.7                             |
| Agricultural self-employment     | 29            | 9.3                   | 32.2                             |
| Non-agricultural self-employment | 37            | 11.9                  | 41.1                             |

When asked whether they would have been able to find the employment without taking the vocational education course, 80% of those finding work (23.2% of those completing the course) said 'No.'

**Table 388 Whether Would Have Found Work without the Vocational Education Course**

|     | Treatment (N) | Treatment (% Overall) | Treatment (% Those Finding Work) |
|-----|---------------|-----------------------|----------------------------------|
| Yes | 18            | 5.8                   | 20.0                             |
| No  | 72            | 23.2                  | 80.0                             |

*Length of time to find employment:* For the 90 participants who completed the vocational education course and found work, the mean length of time to find work was 1.7 months. This includes 13 graduates who continued on with their previous employment (0 months). If we exclude this group of people, the average time required to find employment after completing the course increases to two months.

**Table 399 Length of Time to Find Employment**

| Months | Treatment (N) | Treatment (% Overall) | Treatment (% Those Finding Work) |
|--------|---------------|-----------------------|----------------------------------|
| 0      | 13            | 4.2                   | 14.4                             |
| 1      | 34            | 11.0                  | 37.8                             |
| 2      | 32            | 10.3                  | 35.6                             |
| 3      | 2             | 0.6                   | 2.2                              |
| 4      | 4             | 1.3                   | 4.4                              |
| 5      | 2             | 0.6                   | 2.2                              |
| 6      | 2             | 0.6                   | 2.2                              |
| 10     | 1             | 0.3                   | 1.1                              |
| Mean   |               | 1.7                   |                                  |

*Usefulness of vocational education course:* Of those who found work at the conclusion of the vocational education course, 51.1% said the course was very important in helping them find work and another 37.8% said the course was important for a total of 88.9%. Among the same group, 42.2% said the knowledge and skills learned during the course were very useful and another 42.2% said the knowledge and skills learned were useful in helping them find work.

**Table 50 Usefulness of Knowledge and Skills Acquired in the Vocational Education Course**

|                   | Treatment (N) | Treatment (%) |
|-------------------|---------------|---------------|
| Not at all useful | 2             | 2.2           |
| Not useful        | 2             | 2.2           |
| No opinion        | 4             | 4.4           |
| Useful            | 38            | 42.2          |
| Very useful       | 44            | 48.9          |

*Reasons for not finding employment:* Of the treatment group members who did not find employment, nearly 60% cited 'no jobs available' as the main reason they were unable to attain jobs. This was followed at some distance by an inability to find work matching their aspirations at about 9% and the lack of information about jobs at 7%.

**Table 401 Reasons for Not Finding Employment**

|                                                      | Treatment (N) | Treatment (%) |
|------------------------------------------------------|---------------|---------------|
| Difficult finding work I like                        | 3             | 3.3           |
| Can't find work to match my skills                   | 4             | 4.4           |
| Can't find work to match my income aspirations       | 8             | 8.9           |
| No jobs available                                    | 56            | 62.2          |
| Lack of accessible transportation                    | 1             | 1.1           |
| Fear of losing disability benefits                   | 3             | 3.3           |
| Fear of losing other sources of income               | 1             | 1.1           |
| Family and friends discouraged me from working       | 0             | 0.0           |
| Family responsibilities prevent it                   | 3             | 3.3           |
| Information about jobs not available                 | 6             | 6.7           |
| Victim of discrimination                             | 0             | 0.0           |
| Training/skills are inadequate                       | 0             | 0.0           |
| Difficult to find a job that accommodates disability | 2             | 2.2           |
| I have not money to start business                   | 1             | 1.1           |
| Don't multiply hives                                 | 2             | 2.2           |

*Future employment prospects:* Overall, treatment group respondents are pessimistic about the prospect of finding jobs in the future. Fourteen percent of respondents feel that their job prospects for finding work soon are ‘very poor’ and 19.5% feel that their prospects are ‘poor’ for a total of 33.5%. If we add to this the 30.8% who are unsure about their job prospects, 64.3% of respondents are not optimistic about their job prospects. At the same time, only 5.4% of respondents feel that their job prospects are ‘very good,’ although 30.3% do feel that they have good prospects for finding employment soon.

**Table 412 Prospects for Finding Employment Soon**

|           | Treatment (N) | Treatment (%) |
|-----------|---------------|---------------|
| Very poor | 31            | 14.0          |
| Poor      | 43            | 19.5          |
| Unsure    | 68            | 30.8          |
| Good      | 67            | 30.3          |
| Very good | 12            | 5.4           |

Notwithstanding their pessimism about finding employment in the near future, a majority of currently unemployed respondents believe that the knowledge and skills they acquired in the vocational education course will be either ‘very useful’ (13.6%) or ‘useful’ (46.6%) for finding future employment, compared to only 12.7% who believe that the course will not be useful in finding future employment.

**Table 423 Usefulness of Vocational Education Course for Finding Jobs in the Future**

|                   | Treatment (N) | Treatment (%) |
|-------------------|---------------|---------------|
| Not at all useful | 0             | 0.0           |
| Not useful        | 28            | 12.7          |
| No opinion        | 60            | 27.1          |
| Useful            | 103           | 46.6          |
| Very useful       | 30            | 13.6          |

*Summary:* Using our definition of employment, only around 30% of those completing the vocational education course found work after the course, including several who continued with existing work, taking on average between 1.2-2.0 months to find work.

More than two-thirds of those who found work did so in either non-agricultural or agricultural self-employment. Of those who did not find work, the lack of jobs or suitable jobs were cited as the primary reasons. Notwithstanding, respondents overwhelmingly found the course useful and believe it will be useful in finding future employment, although they are in turn mostly pessimistic or unsure about their future job prospects.

## 6.5 Salary or Wage Employment

*Type of paid work:* The following table shows the number of respondents with different types of paid employment at the time of the baseline. Respondents in both groups report a wide variety of paid employment with larger numbers of treatment respondents working in construction, hair styling, tailoring, or private security and a larger number of control respondents working as teachers or in administrative positions.

**Table 434 Type of Paid Work**

|                     | Treatment<br>(N) | Control<br>(N) | Total<br>(N) |
|---------------------|------------------|----------------|--------------|
| Teacher             | 3                | 10             | 13           |
| Accountant          | 3                | -              | 3            |
| Librarian           | 1                | 2              | 3            |
| Administrative      | 3                | 4              | 7            |
| Stylist             | 7                | -              | 7            |
| Watchman            | 5                | 2              | 7            |
| Construction/Repair | 9                | 1              | 10           |
| Cashier-operator    | 1                | 3              | 4            |
| Tailor              | 6                | -              | 6            |
| Waitress            | 2                | 1              | 3            |
| Pharmacist          | 1                | 1              | 2            |
| Welding             | 1                | -              | 1            |
| Confectioner        | 1                | -              | 1            |
| Souvenirs           | 3                | -              | 3            |
| Painter             | 2                | -              | 2            |
| Plumbing            | 2                | -              | 2            |

|                  |   |   |   |
|------------------|---|---|---|
| Nurse            | - | 1 | 1 |
| Director/Manager | - | 2 | 2 |
| Journalist       | - | 2 | 2 |

*Months worked and income earned:* Among respondents who currently have paid employment, treatment respondents have been on the job 17.5 months and earn GEL 204 per month on average. By comparison, control group respondents have been on the job 44 months and earn GEL 288 on average. The difference in both cases is statistically significant.

**Table 445 Length of Time on Job and Income Earned**

|                | Treatment | Control | Total | P-value |
|----------------|-----------|---------|-------|---------|
| Months on job  | 17.5      | 44.0    | 27.3  | .00     |
| Monthly income | 203.5     | 287.7   | 234.4 | .02     |

*Employment conditions:* Overall, 78% of treatment respondents work for registered firms compared to 93.1% of control respondents and 60% of treatment respondents have a written work agreement compared again to 93.1% of control respondents. Far fewer in each group receive medical benefits from their work totaling 8% of treatment respondents compared to 9% of control respondents.

**Table 456 Employment Conditions**

|                              | Treatment (%) | Control (%) | Total (%) | P-value |
|------------------------------|---------------|-------------|-----------|---------|
| Registered                   | 78.0          | 93.1        | 83.6      | .03     |
| Medical benefits             | 8.0           | 9.0         | 8.4       | .01     |
| Written employment agreement | 60.0          | 93.1        | 72.2      | .02     |

*Satisfaction with current employment:* When asked how satisfied they were with their current paid employment, where 1 equals 'very dissatisfied' and 5 equals 'very satisfied,' 62% of treatment respondents said they were either satisfied or very satisfied compared to only 41.4% of control respondents. The difference is statistically significant.

**Table 467 Satisfaction with Current Paid Employment**

|                                   | Treatment (%) | Control (%) | Total (%) |
|-----------------------------------|---------------|-------------|-----------|
| Very dissatisfied                 | 0.0           | 10.3        | 3.8       |
| Dissatisfied                      | 4.0           | 3.4         | 3.8       |
| Neither satisfied or dissatisfied | 34.0          | 44.8        | 38.0      |
| Satisfied                         | 42.0          | 34.5        | 39.2      |
| Very satisfied                    | 20.0          | 6.9         | 15.2      |
| Mean score                        | 3.7           | 3.2         | 3.5       |

*P-value=.01*

*Summary:* Both treatment and control respondents have a wide variety of types of paid employment, although control respondents tend to work more in salaried positions than treatment respondents. Control respondents have been on the job longer, earn more money, and are more likely to work for a registered organization, have medical benefits, and have a written work agreement. Notwithstanding, treatment respondents are significantly more satisfied with their jobs than control respondents.

## 6.6 Agriculture Self-Employment

*Type of agricultural self-employment:* Table 58 shows the number of respondents with different types of paid agricultural self-employment at the time of the baseline. Respondents in both groups are involved in a wide variety of activities with treatment respondents more concentrated in beekeeping, tomatoes, beans, corn, nuts, cucumbers, and potatoes, while control respondents are more concentrated in nuts, corn, tomatoes, potatoes, beans, cucumbers, and mandarins.

**Table 478 Type of Agricultural Self-Employment**

|          | Treatment (N) | Control (N) | Total (N) |
|----------|---------------|-------------|-----------|
| Garlic   | 3             | 4           | 7         |
| Onions   | 4             | 14          | 18        |
| Potatoes | 14            | 52          | 66        |
| Corn     | 19            | 64          | 83        |
| Tomatoes | 24            | 55          | 79        |

|            |    |    |    |
|------------|----|----|----|
| Beans      | 22 | 39 | 61 |
| Cabbage    | 2  | 1  | 3  |
| Beekeeping | 63 | 6  | 69 |
| Cucumbers  | 13 | 28 | 41 |
| Nuts       | 19 | 76 | 95 |
| Herbs      | 5  | 16 | 21 |
| Grapes     | 1  | 12 | 13 |
| Wheat      | 1  | 4  | 5  |
| Barley     | 1  | 2  | 3  |
| Pepper     | 3  | 7  | 10 |
| Feijoa     | 1  | 8  | 9  |
| Fruits     | 2  | -  | 2  |
| Kiwi       | -  | 4  | 4  |
| Condiments | -  | 14 | 14 |
| Mandarin   | -  | 52 | 52 |

*Years worked and income earned:* Among respondents who currently have agricultural self-employment, treatment respondents have been on the 9.0 years on average and earn GEL 706.5 per month on average. By comparison, control group respondents have been on the job 17.3 months and earn GEL 647.8 on average. The difference in the first case is statistically significant but is not statistically significant in the second case.

**Table 489 Length of Time Engaged in Activity**

|       | Treatment | Control | Total |
|-------|-----------|---------|-------|
| Years | 9.0       | 17.3    | 14.8  |

*P-value=.01*

**Table 60 Income over Last 12 Months**

|        | Treatment | Control | Total |
|--------|-----------|---------|-------|
| Income | 706.5     | 647.8   | 667.0 |

*P-value=.76*

*Satisfaction with agricultural self-employment:* When asked how satisfied they were with their agricultural self-employment, where 1 equals 'very dissatisfied' and 5 equals 'very satisfied,' 53% of treatment respondents were satisfied or very satisfied compared to 17.1% of control respondents. At the same time, 34.2% of control respondents were either very dissatisfied or dissatisfied with their current agricultural self-employment compared to 18.1% of treatment respondents.

**Table 491 Satisfaction with Agricultural Self-Employment**

|                                   | Treatment % | Control % | Total % |
|-----------------------------------|-------------|-----------|---------|
| Very dissatisfied                 | 6.7         | 4.9       | 5.6     |
| Dissatisfied                      | 11.4        | 29.3      | 22.3    |
| Neither satisfied or dissatisfied | 28.6        | 48.8      | 40.9    |
| Satisfied                         | 36.2        | 17.1      | 24.5    |
| Very satisfied                    | 17.1        | 0.0       | 6.7     |
| Mean score                        | 3.5         | 2.8       | 3.1     |

*P-value=.00*

*Summary:* Both treatment and control respondents have a wide variety of types of agricultural self-employment. Control respondents have been involved in the activity for a longer period of time, while treatment respondents earn more money from the activity and are significantly more satisfied with it than control respondents.

## 6.7 Non-Agriculture Self-Employment

*Types of non-agricultural self-employment:* Table 62 shows the number of respondents with different types of non-agricultural self-employment at the time of the baseline. Unfortunately, only four of the control respondents reported having non-agricultural self-employment, which makes comparisons between the two groups less meaningful. Among treatment respondents, the majority were self-employed in tailoring and beauty salons followed by welding and confectioning.

**Table 502 Types of Non-Agricultural Self-Employment**

|              | Treatment<br>(N) | Control<br>(N) | Total<br>(N) |
|--------------|------------------|----------------|--------------|
| Tailoring    | 13               | 1              | 14           |
| Beauty salon | 15               | -              | 15           |
| Confectioner | 7                | -              | 7            |
| Teacher      | 1                | 1              | 2            |
| Plumbing     | 4                | -              | 4            |
| Welding      | 8                | -              | 8            |
| Carpentry    | 3                | 1              | 4            |
| Painter      | 2                | -              | 2            |
| Trade        | -                | 1              | 3            |

*Length of time engaged in activity:* Treatment respondents have been engaged in the above non-agricultural self-employment activities for 5.3 months on average compared to 13.6 months for control respondents.

**Table 513 Length of Time Engaged in Activity**

|        | Treatment | Control | Total |
|--------|-----------|---------|-------|
| Months | 5.3       | 13.6    | 5.9   |

*Location of business:* Over 40% of treatment businesses are located within the respondent's residence with another 17% each located on the roadside or in another fixed place. For the few control respondents engaged in non-agricultural self-employment, most of the businesses are located at home, either inside or outside of the residence.

**Table 524 Location of Business**

|                            | <b>Treatment (%)</b> | <b>Control (%)</b> | <b>Total (%)</b> |
|----------------------------|----------------------|--------------------|------------------|
| Home inside the residence  | 43.4                 | 40.0               | 43.1             |
| Home outside the residence | 3.8                  | 40.0               | 7.1              |
| Industrial site            | 1.9                  | 20.0               | 3.5              |
| Traditional market         | 1.9                  | 0.0                | 1.7              |
| Commercial district shop   | 5.7                  | 0.0                | 5.2              |
| Roadside                   | 17.0                 | 0.0                | 15.5             |
| Other fixed place          | 17.0                 | 0.0                | 15.5             |
| Mobile service             | 9.4                  | 0.0                | 8.6              |

*Main source of money for business:* Nearly one third of treatment respondents did not need money to set up their business compared to 28.3% who got money from an NGO, 17% who received money from a private person, and 13.2% who used their own savings. Among control respondents, an equal number either did not need money, used their own savings, or received money from a bank or local group.

**Table 535 Main Source of Money for the Business**

|                             | <b>Treatment (%)</b> | <b>Control (%)</b> | <b>Total (%)</b> |
|-----------------------------|----------------------|--------------------|------------------|
| Did not need money          | 35.8                 | 25.0               | 34.8             |
| Own savings                 | 13.2                 | 25.0               | 14.3             |
| Commercial/development bank | 5.7                  | 25.0               | 7.4              |
| Microfinance institution    | 0.0                  | 0.0                | 0.0              |
| Private person              | 17.0                 | 25.0               | 17.7             |
| NGO                         | 28.3                 | 0.0                | 25.8             |

*Profits:* Treatment respondents earned on average GEL 105 per month and GEL 825 per year from their non-agricultural self-employment compared to GEL 193 and GEL 1,333 for control respondents.

**Table 546 Monthly and Annual Profits (GEL)**

|                | Treatment | Control | Total |
|----------------|-----------|---------|-------|
| Monthly profit | 105       | 193     | 111   |
| Yearly profit  | 825       | 1,333   | 861   |

*Registration for VAT and income tax:* None of the treatment or control respondents had registered their non-agricultural business for the value-added tax (VAT), while 28.3% of treatment respondents had registered their business for the income tax compared to 60% of control respondents.

**Table 67 Registered for VAT and Income Tax**

|                           | Treatment (%) | Control (%) | Total (%) |
|---------------------------|---------------|-------------|-----------|
| Registered for VAT        | 0.0           | 0.0         | 0.0       |
| Registered for income tax | 28.3          | 60.0        | 31.2      |

*Satisfaction with non-agricultural self-employment:* When asked how satisfied they were with their agricultural self-employment, where 1 equals 'very dissatisfied' and 5 equals 'very satisfied,' 53.9% of treatment respondents were satisfied or very satisfied compared to 0% of control respondents. At the same time, 67.7% of control respondents were dissatisfied with their non-agricultural self-employment compared to only 9.6% of treatment respondents.

**Table 558 Satisfaction with Non-Agricultural Self-Employment**

|                                   | Treatment (%) | Control (N) | Control (%) |
|-----------------------------------|---------------|-------------|-------------|
| Very dissatisfied                 | 1.9           | 0.0         | 1.7         |
| Dissatisfied                      | 7.7           | 67.7        | 13.1        |
| Neither satisfied or dissatisfied | 36.5          | 33.3        | 36.2        |
| Satisfied                         | 40.4          | 0.0         | 36.8        |
| Very satisfied                    | 13.5          | 0.0         | 12.3        |
| Mean score                        | 3.6           | 2.3         | 3.5         |

*Summary:* Treatment respondents with non-agricultural self-employment tend to be tailors or beauticians; operate inside their residences (and to a lesser extent on the roadside or in another fixed location); either did not need money to start the business or got the money an NGO, private person, or own savings; earn on average GEL 105 per month; are not registered for the VAT or income tax, and are satisfied with their work.

## 6.8 Satisfaction with Vocational Education Course

*Quality of vocational education course:* Treatment respondents were asked their agreement with a series of questions measuring their perceptions about the quality of the vocational education course using a scale where 1 equals ‘strongly disagree’ and 5 equals ‘strongly agree.’ As seen in the table below, respondents said that they agreed or strongly agreed with statements about the quality and content of instruction and that the course gave them important new knowledge and skills. They were less positive about the usefulness of the course in helping them find employment saying that they either did not have an opinion or agreed that the course gave them marketable knowledge and skills, linked them with useful job contacts, or helped them find employment.

**Table 569 Quality of Vocational Education Course**

|                                                                                     | Treatment (Mean) |
|-------------------------------------------------------------------------------------|------------------|
| My instructors knew the subject matter well                                         | 4.5              |
| My instructors communicated the subject matter well                                 | 4.7              |
| The mix of classroom instruction and practical training was appropriate             | 4.6              |
| The subject matter taught was appropriate to my situation                           | 4.6              |
| I learned a lot I did not know before hand                                          | 4.6              |
| I developed important new knowledge and skills                                      | 4.6              |
| There is good market demand for the knowledge and skills I developed                | 4.0              |
| The course linked me to people who can help me in my future employment              | 3.6              |
| The instructors and course administrators gave me useful help in finding employment | 3.2              |

*Benefits of vocational education course:* Treatment respondents were then asked their agreement with a series of questions measuring their perceptions about the benefits of the vocational education course

using a scale where 1 equals 'strongly disagree' and 5 equals 'strongly agree.' Their mean responses are shown in Table 70.

Consistent with earlier questions, respondents agreed that the course improved their work knowledge and skills and that it also increased their motivation to work. At the same time, however, respondents either disagreed or had no opinion about whether the course increased their income. In addition, respondents either had no opinion or agreed that the course improved their future income potential, increased their financial independence or independence generally, improved their chances of finding employment, increased their self-esteem, or improved their life generally.

**Table 70 57Benefits of Vocational Education Course**

|                                                   | Treatment (Mean) |
|---------------------------------------------------|------------------|
| Increased my income                               | 2.8              |
| Increased my future income potential              | 3.7              |
| Increased my financial independence               | 3.0              |
| Increased my independence generally               | 3.6              |
| Improved my work knowledge and skills             | 4.0              |
| Increased my motivation to work                   | 4.0              |
| Improved my chances of finding quality employment | 3.7              |
| Increased my self-esteem                          | 3.9              |
| Improved my quality of life generally             | 3.3              |

*Satisfaction with vocational education course:* Finally, treatment respondents were asked to rate their overall satisfaction with the vocational education course. Their mean responses are shown in Table 71. Overall, over 80% treatment respondents were satisfied to very satisfied with the vocational education course, with 41.5% each saying they were either satisfied or very satisfied. At the other extreme, only 8.7% were either dissatisfied or very dissatisfied with the vocational education course.

**Table 581 Satisfaction with Vocational Education Course**

|                                   | Treatment (%) |
|-----------------------------------|---------------|
| Very dissatisfied                 | 6.4           |
| Dissatisfied                      | 2.3           |
| Neither satisfied or dissatisfied | 8.4           |
| Satisfied                         | 41.5          |
| Very satisfied                    | 41.5          |
| Mean score                        | 4.1           |

*Summary:* Treatment respondents generally give the vocational education course high marks between satisfied and very satisfied in terms of its quality and the knowledge and skills provided, but they are more lukewarm in rating the course in terms of its usefulness in helping them find jobs and improve their lives, with answers typically falling between neutral (neither satisfied or unsatisfied) and satisfied. Overall, however, over 80% of respondents said that they are either satisfied or very satisfied with the course with the mean score falling closer to satisfied than very satisfied.

## 6.9 Access to Credit

*Whether applied for loan:* Only 29.5% of survey respondents have tried to obtain a loan with 27.1% of them trying once to get a loan and 1.9% trying twice. There is no significant difference between the treatment and control group in this regard.

**Table 59 Applied for Loan**

|                 | Treatment (%) | Control (%) | Total (%) |
|-----------------|---------------|-------------|-----------|
| Yes             | 27.7          | 31.3        | 29.5      |
| How many times? |               |             |           |
| Once            | 24.8          | 29.4        | 27.1      |
| Twice           | 2.9           | 1.9         | 2.4       |

*P-value=.31*

*Where applied for loan:* Of those who applied for loans, over 70% of treatment and control respondents applied to commercial or development banks followed by about 20% in each case who applied to a microfinance institution. The difference between the two groups is not statistically significant.

**Table 60 Where Applied for Loan**

|                              | Treatment (%) | Control (%) | Total (%) |
|------------------------------|---------------|-------------|-----------|
| Commercial/ development bank | 70.5          | 77.1        | 74.0      |
| Microfinance institution     | 17.9          | 22.9        | 20.5      |
| Local shop/supplier          | 2.1           | 0.0         | 1.0       |
| Buyers                       | 0.0           | 0.0         | 0.0       |
| Family member or friend      | 0.0           | 0.0         | 0.0       |
| Moneylender                  | 1.1           | 0.0         | 0.5       |
| Other (CHCA)                 | 8.4           | 0.0         | 4.0       |

*P-value=.15*

*Whether received loan:* Over 95% of those who applied for a loan in both groups received the loan with the difference between the two groups being statistically insignificant.

**Table 61 Whether Received Loan**

|     | Treatment (%) | Control (%) | Total (%) |
|-----|---------------|-------------|-----------|
| Yes | 97.9          | 95.2        | 96.5      |
| No  | 2.1           | 4.8         | 3.5       |

*P-value=.33*

*Loan terms:* Compared to treatment respondents who received loans, control respondents received on average larger loans for longer terms. These differences are statistically significant. In contrast, although control respondents are also paying higher interest rates than treatment respondents, the difference is not statistically significant.

**Table 62 Loan Terms**

|                  | Treatment | Control | Total |
|------------------|-----------|---------|-------|
| Loan size (GEL)  | 1,308     | 1,668   | 1,486 |
| <i>P-value</i>   | 0.03      |         |       |
| Length in months | 15.2      | 19.7    | 17.6  |
| <i>P-value</i>   | .00       |         |       |
| Interest rate    | 17.4      | 19.2    | 18.3  |
| <i>P-value</i>   | .49       |         |       |

*Reasons for not applying for loan:* Around one-half of those in both groups that did not try to obtain a loan during the last 12 months cited the inability to repay the main reason, while another one-third noted they do not wish to have debt. Only a small number of respondents in both groups cited another reason for not apply for a loan, including interest rates, collateral requirements, and proximity of lenders.

**Table 636 Reasons for Not Applying for Loan**

|                                      | Treatment (%) | Control (%) | Total (%) |
|--------------------------------------|---------------|-------------|-----------|
| Don't know how to apply              | 0.0           | 0.0         | 0.0       |
| Lenders are not located close by     | 0.0           | 0.0         | 0.0       |
| Interest rates are too high          | 5.0           | 4.0         | 4.5       |
| Collateral requirements are too high | 2.1           | 2.2         | 2.1       |
| Don't meet the requirements          | 5.5           | 9.3         | 7.3       |
| Application procedures too complex   | 0.0           | 0.4         | 0.2       |
| Afraid that won't be able to repay   | 48.3          | 47.1        | 47.7      |
| Do not want to have debt             | 37.0          | 36.1        | 36.5      |
| Problems with a previous debt        | 2.1           | 0.9         | 1.5       |

*Purpose for loan:* Among those who received a loan, surprisingly the most common use of the loan among both treatment and control groups was for non-business purposes, including purchasing consumer goods, education, health care, etc. That said, nearly one-quarter of treatment respondents

used the loan for business purposes, in particular to purchase inputs or working capital and to a much less extent to purchase machinery and equipment, compared to only 9.6% of control respondents.

**Table 64 Purpose for Loan**

|                                              | Treatment (%) | Control (%) | Total (%) |
|----------------------------------------------|---------------|-------------|-----------|
| Purchase machinery & equipment               | 3.6           | 0.0         | 1.7       |
| Purchase inputs/working capital              | 21.4          | 9.6         | 15.2      |
| Purchase land                                | 0.0           | 0.0         | 0.0       |
| Purchase livestock                           | 0.0           | 4.3         | 2.2       |
| Purchase new production method or technology | 0.0           | 0.0         | 3.4       |
| Construct or rehabilitate work place         | 7.1           | 0.0         | 0.0       |
| Construct or rehabilitate home               | 4.8           | 8.5         | 6.7       |
| Purchase consumer goods                      | 31.0          | 28.7        | 29.8      |
| Other (education, health, etc.)              | 41.7          | 55.3        | 48.9      |

*Summary:* Both treatment and control respondents were equally likely to apply for a loan over the last 12 months (27%-31%) and both were also equally likely to get the loan, with an over 95% success rate in each case. Respondents in both groups applied most frequently to commercial/development banks and to a lesser extent to microfinance institutions, while control respondents tended to get larger loans over more months with no significant difference in the interest rate charged. Those who did not apply for a loan in each group were equally likely to cite the fear of not being able to repay the loan or the fact that they did not want/need a loan as the reasons for not applying.

## **7 BASELINE FINDINGS FOR RURAL ECONOMIC DEVELOPMENT SURVEY**

This section presents the findings of the rural economic development survey. The findings are reported according to, and in the order of, the 12 survey sections described above.

## 7.1 Household Demographics

*Household Size:* The average size of respondent households varies from 1-10 members with an overall average of 3.9 members. Households for production grant respondents are significantly larger than control respondents, while the difference in household size between production grant and agricultural training respondents and the control recipients is statistically insignificant. The difference between the overall treatment group and control group is statistically significant.

**Table 65 Household Size**

|             | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|-------------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Family size | 4.0              | 3.7                   | 4.7                | 4.1             | 3.7     | 3.9   |
| P-value     | .11              | .80                   | .00                | .00             | N/A     | N/A   |

*Age:* The average size of survey respondents is 48.5 years overall and ranges from 45.7 years to 50.2 years among the treatment group compared to 49.5 years within the control group. The average age for control respondents is significantly larger than agricultural training respondents, while the difference in age between production grant and agricultural training respondents and the control recipients is statistically insignificant. The difference between the overall treatment group and control group is statistically significant.

**Table 66 Respondent's Age**

|         | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|---------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Age     | 50.2             | 45.7                  | 47.8               | 47.4            | 49.5    | 48.5  |
| P value | .60              | .00                   | .14                | .00             | N/A     | N/A   |

*Gender:* While women make up 49.6% of total survey respondents, the variation across study groups is large. Women make up 14.3% of production grant respondents, 38.3% of agricultural training respondents, 49.7% of livelihood package respondents, and 63.2% of control respondents. The differences between the treatment groups and control groups are statistically significant. The higher representation of women in the control sample is explained by the difficulty of finding men at home during the day during they survey, while the treatment respondents were handpicked from the list of

project beneficiaries, allowing for a direct contact with the recipient/beneficiary. The difference between the overall treatment group and control group is statistically significant.

**Table 80 Respondent's Gender**

|         | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|---------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Male    | 85.7             | 61.7                  | 50.3               | 64.4            | 36.8    | 50.4  |
| Female  | 14.3             | 38.3                  | 49.7               | 35.6            | 63.2    | 49.6  |
| P-value | .00              | .00                   | .00                | .00             | N/A     | N/A   |

*Relationship to Household Head:* One-half of survey respondents are the heads of their households, while another 27.7% of respondents are the spouses of the household head. There are, however, differences among the groups in this regard. Production grant respondents are more likely to be the head of the household followed by a son or daughter. In contrast, agricultural trainings recipients, livelihood package recipients, and control respondents are relatively less likely than production grant recipients to be the head of the household, relatively more likely be the spouse of the household head, and (with the exception of agricultural training recipients) relatively less likely to be the son or daughter of the household head.

**Table 671 Respondent's Relationship to the Head of Household**

|                                          | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Control (%) | Total (%) |
|------------------------------------------|----------------------|---------------------------|------------------------|-------------|-----------|
| Head of household                        | 69.9                 | 48.5                      | 45.6                   | 45.5        | 49.1      |
| Spouse                                   | 9.8                  | 22.6                      | 31.3                   | 33.4        | 27.7      |
| Son / Daughter                           | 20.3                 | 20.4                      | 10.9                   | 12.7        | 15.2      |
| Mother / Father                          | -                    | 1.1                       | 0.7                    | 0.3         | 0.5       |
| Son / Brother / Daughter / Sister-in-law | -                    | 5.1                       | 9.5                    | 7.1         | 6.1       |
| Grandson / Granddaughter                 | -                    | 2.2                       | -                      | 0.5         | 0.8       |
| Relative                                 | -                    | -                         | -                      | 0.2         | 0.1       |
| Brother/Sister                           | -                    | -                         | 2.0                    | 0.2         | 0.4       |

*Marital Status:* Almost three-quarters of survey respondents are married, another 7.6% are widowed, and 15.3% are single. Treatment respondents are more likely than control respondents to be married, while control respondents are more likely than treatment respondents to be separated or widowed.

**Table 682 Respondent's Marital Status**

|                      | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Control (%) | Total (%) |
|----------------------|----------------------|---------------------------|------------------------|-------------|-----------|
| Single               | 19.5                 | 22.6                      | 6.1                    | 13.2        | 15.3      |
| Married              | 78.9                 | 72.3                      | 88.4                   | 71.8        | 74.9      |
| Divorced / Separated | 0.8                  | 2.2                       | 0.0                    | 3.0         | 2.1       |
| Widowed              | 0.8                  | 2.9                       | 5.4                    | 12.0        | 7.6       |

*Ethnicity:* From 97% to 100% of survey respondents in all study groups report themselves as ethnically Georgians. There is no statistically significant difference between treatment and control households in terms of ethnicity.

**Table 693 Respondent's Ethnicity**

|          | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Control (%) | Total (%) |
|----------|----------------------|---------------------------|------------------------|-------------|-----------|
| Georgian | 100.0                | 97.1                      | 99.3                   | 99.0        | 98.7      |
| Other    | 0.0                  | 2.9                       | 0.7                    | 0.0         | 1.3       |

*Number of Income Earners:* Respondent households in all study groups have between 2.3 to 2.4 income earners. The difference between treatment and control groups is not statistically significant.

**Table 704 Number of Income Earners in the Household**

|                          | Production grant | Agricultural training participant | Livelihood Package | Control | Total |
|--------------------------|------------------|-----------------------------------|--------------------|---------|-------|
| Number of Income earners | 2.5              | 2.4                               | 2.5                | 2.3     | 2.4   |
| P value                  | 0.49             | 0.12                              | 0.89               | N/A     | N/A   |

*Respondent Employment Status:* The majority of respondents in all treatment and control groups farm as their primary profession. That said, there are a number of differences between the groups. A higher percentage of production grant recipients are farmers, livelihood package recipients have a higher rate of self-employment, a higher percentage of production grant and agricultural training recipients are employed in the public sectors, and a higher percentage of control respondents are pensioners.

**Table 715 Respondent’s Employment Status**

|                              | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|------------------------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Farming                      | 63.2                 | 58.4                      | 55.1                   | 58.7                | 50.7        | 54.6      |
| Self-employment              | 6.8                  | 4.0                       | 13.6                   | 7.2                 | 2.3         | 4.7       |
| Intermittent employment      | 0.8                  | 2.6                       | 4.8                    | 2.7                 | 3.1         | 2.9       |
| Employment in public sector  | 17.3                 | 20.4                      | 8.8                    | 16.6                | 12.9        | 14.7      |
| Employment in private sector | 3.8                  | 3.6                       | 2.0                    | 3.2                 | 3.3         | 3.3       |
| Unemployed seeking           | 2.3                  | 3.6                       | 6.8                    | 4.2                 | 6.8         | 5.5       |
| Unemployed not seeking       | 0.0                  | 3.3                       | 0.7                    | 1.8                 | 2.6         | 2.2       |
| Pensioner                    | 6.0                  | 4.0                       | 8.2                    | 5.6                 | 17.4        | 11.6      |
| Student                      | 0.0                  | 0.0                       | 0.0                    | 0.0                 | 0.3         | 0.2       |
| Unfit to work                | 0.0                  | 0.0                       | 0.0                    | 0.0                 | 0.5         | 0.3       |

*Most Important Source of Household Income:* The most important income source across all study groups is farming (47.6%), followed by employment in public sector (13.7%), and pension (9.4%). Relative to the other study groups, production grant recipients are more likely to cite farming as the primary source of income, livelihood package recipients are more likely to cite self-employment, livelihood package recipients and control respondents are less likely to cite employment in the private sector, and control respondents are more likely to cite pensions. The difference between the groups is statistically significant.

**Table 726 Most Important Source of Household Income**

|                              | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|------------------------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Farming                      | 56.4                 | 49.6                      | 49.0                   | 44.3                | 44.3        | 47.6      |
| Self-employment              | 6.0                  | 4.0                       | 12.2                   | 2.3                 | 2.3         | 4.4       |
| Intermittent employment      | 0.0                  | 2.2                       | 4.1                    | 3.0                 | 3.0         | 2.6       |
| Employment in public sector  | 15.8                 | 19.7                      | 8.8                    | 11.5                | 11.5        | 13.7      |
| Employment in private sector | 3.0                  | 3.6                       | 2.0                    | 3.3                 | 3.3         | 3.2       |
| Pension                      | 3.8                  | 3.3                       | 7.5                    | 14.1                | 14.1        | 9.4       |

*Education Level:* Around 76% of survey respondents have completed a secondary education, including 45.8% who completed a general secondary education and 20.2% who completed a specialized secondary education. Another 29.8% of respondents have received a higher education. Relative to the other groups, a higher percentage of production grantees and agricultural trainees have received a higher education creating a statistically significant difference with the control respondents.

**Table 737 Education Level**

|                                  | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|----------------------------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Illiterate                       | 0.8                  | 0.7                       | 1.4                    | 0.7                 | 0.5         | 0.7       |
| Elementary                       | 0.8                  | 0.0                       | 0.0                    | 0.1                 | 0.0         | 0.1       |
| Incomplete secondary             | 0.0                  | 1.1                       | 1.4                    | 2.3                 | 3.7         | 2.3       |
| Complete secondary (general)     | 27.1                 | 42.3                      | 54.4                   | 45.8                | 49.7        | 45.8      |
| Complete secondary (specialized) | 19.5                 | 21.5                      | 20.4                   | 20.2                | 19.7        | 20.2      |
| Incomplete higher                | 0.8                  | 0.7                       | 1.4                    | 1.1                 | 1.2         | 1.1       |
| Higher                           | 51.1                 | 33.6                      | 21.1                   | 29.8                | 25.3        | 29.8      |
| P value                          | 0.00                 | 0.01                      | 0.33                   | .00                 | NA          | NA        |

*IDP Status:* Approximately 90% or more of all respondents are local residents and relatively few respondents in any group are IDPs. As might be expected, livelihood package respondents have the highest share of IDPs at 12.2%. The differences between treatment and control groups are not statistically significant.

**Table 748 IDP Status of Sample**

|       | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Control (%) | Total (%) |
|-------|----------------------|---------------------------|------------------------|-------------|-----------|
| Local | 97.0                 | 91.2                      | 87.8                   | 90.1        | 91.5      |
| IDP   | 3.0                  | 8.8                       | 12.2                   | 9.9         | 8.5       |

*P-value=.43*

*Comparison of treatment and control groups:* The results above reveal a number of significant demographic differences among the treatment and control respondents. Compared to the control respondents, treatment respondents are slightly older and come from slightly larger households; are much less likely to be female; are more likely to be married and less likely to be single; are more likely to be engaged in farming and derive most their income from farming and less likely to earn income from employment in the public sector or from pensions; and more likely to have received an advanced education. Areas in which there were no significant differences between the two groups include ethnicity, number of income sources, and IDP status.

## 7.2 Household Economic Conditions

*Household Financial Conditions:* Respondents were asked to assess the financial condition of their household on a 5-point scale with 1 meaning 'very bad' and 5 meaning 'good.' If we take the mean score given by respondents, livelihood package recipients and control respondents rate their conditions as somewhere between bad and satisfactory, while production grantees and agricultural training recipients rate their conditions as satisfactory. It is perhaps not surprising that livelihood package recipients rate their conditions as the lowest, given that this population includes (or is supposed to include) the more vulnerable members of the project communities. The differences between each of the treatment groups and the control group are statistically significant.

**Table 759 Household Financial Condition**

|           | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|-----------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Very poor | 5.3                  | 6.2                       | 8.2                    | 6.5                 | 11.1        | 8.9       |
| Poor      | 14.3                 | 22.3                      | 47.6                   | 27.1                | 32.2        | 29.7      |

|              |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|
| Middle class | 35.3 | 29.6 | 23.1 | 29.2 | 19.3 | 24.2 |
| Wealthy      | 39.8 | 39.4 | 21.1 | 34.7 | 36.6 | 35.6 |
| Mean         | 3.3  | 3.1  | 2.6  | 3.0  | 2.8  | 1.6  |
| P-value      | .00  | .00  | .00  | .01  | NA   | NA   |

*Economic Status:* Respondents were then asked to assess the economic status of their households on a 5-point scale based on their property status with a 1 meaning ‘very poor’ and 5 meaning ‘wealthy.’ If we take the mean score given by respondents, all respondents rate the economic status somewhere between poor and middle class, with livelihood package recipients giving the lowest rating of 2.4 and production grantees giving the highest rating at 2.8 followed by agricultural training recipients and control respondents at 2.7 and 2.6 respectively. The differences between the treatment and control groups are statistically significant.

**Table 760 Household Economic Status**

|              | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|--------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Very poor    | 1.5                  | 3.6                       | 8.2                    | 4.3                 | 6.4         | 5.4       |
| Poor         | 15.0                 | 21.5                      | 45.6                   | 26.4                | 31.0        | 28.7      |
| Middle class | 81.2                 | 73.0                      | 46.3                   | 67.9                | 61.5        | 64.6      |
| Wealthy      | 2.3                  | 1.8                       | 0.0                    | 1.4                 | 1.0         | 1.2       |
| Mean         | 2.8                  | 2.7                       | 2.4                    | 2.7                 | 2.6         | 2.6       |
| P-value      | .00                  | .00                       | .01                    | .01                 | NA          | NA        |

*Household Asset Ownership:* From one-half to 90% of respondent households own a color TV, refrigerator, and satellite dish, while between one-fifth and one-fourth own a washing machine, personal computer, and car. Compared to the control households, treatment households are more likely to own most the assets listed in Table 91 with the exception of color TVs, air conditioners, and satellite dishes. With some exceptions, livelihood package recipients are the least likely of the four groups to own the assets shown in Table 91. The percentage of respondents owning two or more of the assets in Table 91 is small in all cases. Overall, control respondents are significantly more likely to own a number of the assets listed, including refrigerators, washing machines, cars, DVD players, personal computers, vacuum cleaners, and independent heating.

**Table 771 Household Asset Ownership**

|                     | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) | P-Value |
|---------------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|---------|
| Color TV            | 94.7                 | 90.8                      | 83.2                   | 89.2                | 88.6        | 89.2      | 0.54    |
| Refrigerator        | 85.7                 | 77.1                      | 53.0                   | 68.5                | 64.2        | 68.5      | 0.00    |
| Washing machine     | 41.4                 | 25.7                      | 18.1                   | 22.6                | 17.8        | 22.6      | 0.00    |
| Car                 | 40.6                 | 28.5                      | 10.1                   | 22                  | 17.4        | 22.0      | 0.00    |
| DVD player          | 15.0                 | 12.0                      | 9.4                    | 9.1                 | 6.2         | 9.1       | 0.01    |
| Personal computer   | 39.1                 | 26.8                      | 14.8                   | 22.1                | 17.6        | 22.1      | 0.00    |
| Air conditioner     | 0.8                  | 1.4                       | 1.3                    | 1                   | 0.7         | 1.0       | 0.37    |
| Vacuum cleaner      | 15.8                 | 11.6                      | 2.7                    | 6.8                 | 3.4         | 6.8       | 0.00    |
| Satellite dish      | 68.4                 | 51.0                      | 51.0                   | 53.4                | 52.0        | 53.4      | 0.34    |
| Independent heating | 10.5                 | 4.0                       | 4.0                    | 3.4                 | 1.8         | 3.4       | 0.00    |

*Agricultural Asset Ownership:* Relatively few of the survey respondents own any of the agricultural assets listed in the table below. The exceptions are wheelbarrows for all four groups and mechanical water pumps, motorized insect pumps, and greenhouses among production grantees. The only significant differences in agricultural asset ownership among the groups exist in mechanical water pumps, motorized insect pumps, and greenhouses.

**Table 782 Household Agricultural Asset Ownership**

|                            | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) | P-Value |
|----------------------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|---------|
| Tractor                    | 9.8                  | 5.8                       | 9.5                    | 7.8                 | 5.2         | 5.0       | .43     |
| Animal drawn plough        | 3.8                  | 3.3                       | 2.7                    | 3.2                 | 1.9         | 2.0       | .19     |
| Mechanical plough          | 4.5                  | 1.8                       | 1.4                    | 2.3                 | 1.4         | 1.1       | .49     |
| Wheelbarrows               | 34.6                 | 29.9                      | 23.1                   | 29.2                | 25.1        | 25.4      | .21     |
| Trailer                    | 4.5                  | 1.8                       | 2.7                    | 2.7                 | 2.6         | 2.3       | .47     |
| Motorized thresher         | 4.5                  | 5.5                       | 6.1                    | 5.4                 | 5.2         | 5.3       | .97     |
| Hand thresher              | 2.3                  | 4.0                       | 4.8                    | 3.8                 | 2.8         | 2.7       | .25     |
| Mechanical water pump      | 44.4                 | 25.9                      | 6.1                    | 25.1                | 14.1        | 13.9      | .00     |
| Hand water pump            | 0.8                  | 3.3                       | 0.0                    | 1.8                 | 2.1         | 2.0       | .98     |
| Mill                       | 1.5                  | 1.1                       | 1.4                    | 1.3                 | 1.6         | 1.6       | .61     |
| Motorized insecticide pump | 36.1                 | 8.0                       | 6.8                    | 14.4                | 5.4         | 5.2       | .00     |
| Greenhouse                 | 12.0                 | 3.3                       | 2.0                    | 5.1                 | 0.7         | 0.7       | .00     |

*Coping Strategies:* The survey asked respondents a series of questions to determine whether they or their households had engaged in one or more of a set of coping strategies in response to difficult economic/financial circumstances. The first set of questions asked whether the respondents were able to get by financially and possibly save or whether they had to liquidate assets to meet their financial needs. Almost three quarters of the interviewed households say they ‘just got by’ with their incomes over the past 12 months (73.7%). On top of this, only 2% of respondents said that they were able to set aside savings over the last 12 months. Very few households (1.6%) spent their savings in the past 12 months to pay for household expenses, although almost one quarter of respondent households had to borrow money to cover their expenses (22.2%). There is no significant difference between treatment and control group responses.

**Table 793 Household Coping Strategies Adopted**

|                                                  | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|--------------------------------------------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Saved money                                      | 8.3                  | 2.1                       | 0.7                    | 3.2                 | 0.9         | 2.0       |
| Just got by                                      | 69.2                 | 74.3                      | 80.5                   | 75.1                | 72.6        | 73.7      |
| Spent savings to pay household expenses          | 1.5                  | 2.1                       | 0.7                    | 1.4                 | 1.6         | 1.6       |
| Borrowed money to pay household expenses         | 20.3                 | 21.1                      | 18.1                   | 19.9                | 24.2        | 22.2      |
| Sold household assets to pay household expenses  | 0.8                  | 0.4                       | 0.0                    | 0.4                 | 0.5         | 0.3       |
| Sold productive assets to pay household expenses | 8.3                  | 2.1                       | 0.0                    | 0.0                 | 0.2         | 0.3       |

*P value= 0.14*

*Change in Household Financial Conditions:* Respondents were asked to assess how their household financial condition has changed over the last 12 months and how they expected it to change over the next 12 months. The majority of respondents think that their conditions have not changed over the past 12 months (69.7%), and 18.3% think that their conditions have worsened slightly or significantly. Further, more than one-half of respondents do not expect their household condition to change over the next 12 months (54.8%), while 6.4% of respondents believe that their condition will improve slightly or significantly over the next 12 months. With the exception of production grantees, the differences between the treatment and control groups are not statistically significant.

**Table 804 Change in Household Financial Conditions**

|                        | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|------------------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Significantly worsened | 0.0                  | 4.2                       | 4.7                    | 3.2                 | 3.4         | 3.4       |
| Slightly worsened      | 12.0                 | 11.6                      | 15.4                   | 13.0                | 17.1        | 14.9      |
| Remained the same      | 60.9                 | 72.2                      | 66.4                   | 67.7                | 71.4        | 69.7      |
| Slightly improved      | 21.8                 | 11.3                      | 13.4                   | 14.4                | 8.2         | 11.3      |
| Significantly improved | 5.3                  | .7                        | 4.7                    | 1.6                 | 0.0         | 0.8       |
| Mean                   | 3.2                  | 2.9                       | 2.9                    | 3.0                 | 2.8         | 2.9       |
| P-value                | 0.00                 | 0.67                      | 0.45                   | .21                 | NA          | NA        |

*Expected Change in Household Financial Conditions:* Treatment and control respondents are broadly similar in their assessment past and future household financial conditions, with an important exception that treatment respondents (production grantees especially) are more likely to say that their financial conditions have slightly or significantly improved and that they expect them to improve in the future. With the exception of production grantees, the differences between the treatment and control groups are not statistically significant.

**Table 815 Expected Change in Household Financial Conditions**

|                            | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|----------------------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Will significantly worsen  | 0.0                  | 1.8                       | 1.3                    | 1.1                 | 1.2         | 1.2       |
| Will slightly worsen       | 3.0                  | 3.9                       | 4.7                    | 4                   | 6.6         | 5.2       |
| Will remain the same       | 40.6                 | 57.0                      | 52.3                   | 51.6                | 57.7        | 54.8      |
| Will slightly improve      | 51.9                 | 35.9                      | 41.6                   | 41.5                | 34.0        | 37.6      |
| Will significantly improve | 4.5                  | 1.4                       | 1.3                    | 1.8                 | 0.0         | 1.2       |
| Mean                       | 3.6                  | 3.3                       | 3.3                    | 3.4                 | 3.3         | 3.3       |
| P-value                    | 0.00                 | 0.245                     | 0.162                  | .11                 | NA          | NA        |

*Food security:* The survey asked a series of additional questions attempting to measure the respondents' economic vulnerability and food security, including whether they had to limit consumption of certain foods due to financial difficulties or whether there was incidence of hunger in the households. The responses, however, indicated consistent and very low levels of economic vulnerability and food insecurity using these measures across all four study groups to the extent that we do not feel there is much, if anything to be gained, by analyzing these questions. It is likely that we will drop these questions from the endline survey.

*Social Assistance:* The survey asked respondents whether they had received social assistance or participated in a government-run health insurance program in the last 12 months, and what were their perceptions of these programs. Livelihood packages recipients were significantly more likely than control respondents (or any other respondents) to apply for social assistance, and they were also far more likely to have received social assistance than any other group. At the same time, production grantees and agricultural training participants were less likely to have applied for and received social assistance than control respondents. In terms of the amount of assistance received, both agricultural

training participants and livelihood package recipients received on average a great amount of social assistance than control respondents.

Over 70% of all respondents participated in the government-run health insurance program with the rates of participation being highest among agricultural training participants and livelihood package recipients and lowest among production grantees. There is no significant difference between treatment and control groups in terms of the receipt of social assistance.

**Table 826 Receipt of Social Assistance**

|                                      | Production Grant (%)                                     | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|--------------------------------------|----------------------------------------------------------|---------------------------|------------------------|---------------------|-------------|-----------|
|                                      | Applied for Social Assistance in Last 12 Months?         |                           |                        |                     |             |           |
| Yes                                  | 22.6                                                     | 38.3                      | 60.5                   | 40.4                | 47.9        | 44.2      |
| No                                   | 77.4                                                     | 61.7                      | 39.5                   | 59.6                | 52.1        | 55.8      |
|                                      | Received Social Assistance in Last 12 Months?            |                           |                        |                     |             |           |
| Yes – during the whole year          | 8.3                                                      | 10.9                      | 36.1                   | 17                  | 18.8        | 17.9      |
| Yes – during some period of the year | 5.3                                                      | 2.9                       | 8.2                    | 4.9                 | 7.8         | 6.4       |
| No                                   | 86.5                                                     | 86.1                      | 55.8                   | 78.2                | 73.3        | 75.7      |
| Amount received (GEL)                | 1,013                                                    | 1,183                     | 1,266                  | 1,202               | 1,024       | 1,103     |
| (T-test)                             | 0.94                                                     | 0.16                      | 0.07                   | 0.11                | N/A         | N/A       |
|                                      | Participated in Government-Run Health Insurance Program? |                           |                        |                     |             |           |
| Yes                                  | 72.9                                                     | 80.3                      | 83.7                   | 79.4                | 77.7        | 78.5      |
| No                                   | 27.1                                                     | 19.7                      | 16.3                   | 20.6                | 22.3        | 21.5      |

*P-value=.48*

For those who did not apply for social assistance in the last 12 months, the most common reason given was they they did not have hope of receiving the assistance. Among the study groups, however, the reasons showed a significant amount of variation. Other important reasons given were that the respondents did not think they were poor (production grantees), others are worse off than them (production grantees, agricultural trainees, and control respondents), and they already had social assistance (livelihood package recipients and control respondents). The differences between the treatment and control group are statistically significant.

**Table 837 Reasons for Not Applying for Social Assistance**

|                                                   | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|---------------------------------------------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Do not think I'm poor                             | 21.4                 | 9.9                       | 5.2                    | 12.7                | 1.3         | 7.3       |
| Others are worse off                              | 40.8                 | 40.4                      | 10.3                   | 34.8                | 23.5        | 29.7      |
| I didn't have hope of receiving social assistance | 32.0                 | 40.4                      | 27.6                   | 35.8                | 50.0        | 42.4      |
| Do not trust system                               | 0.0                  | 2.3                       | 0.0                    | 1.5                 | 1.3         | 1.3       |
| I had Social Assistance                           | 5.8                  | 7.0                       | 56.9                   | 15.5                | 23.8        | 19.4      |
| P-value                                           | 0.00                 | 0.00                      | 0.00                   | 0.00                | N/A         | N/A       |

*Perceived Importance of social assistance:* The survey next asked respondents to rate how important they perceived social assistance and government-run health insurance were to their households using a 4-point scale where 1 means 'very unimportant' and 4 means 'very important.' All of the respondents rated the importance of social assistance somewhere between important and very important. Not surprisingly, livelihood package recipients rated the importance of social assistance the highest followed closely by control respondents and then at a moderate distance by agricultural trainees and production grantees, with the difference between the latter two and treatment respondents overall and control respondents being statistically significant.

**Table 98 Perceived Importance of Social Assistance**

|                  | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|------------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Very unimportant | 4.5                  | 2.1                       | .7                     | 2.3                 | .9          | 1.6       |
| Unimportant      | 17.3                 | 9.5                       | 2.7                    | 9.7                 | 1.8         | 5.7       |
| Important        | 55.6                 | 50.4                      | 23.5                   | 44.8                | 37.5        | 41.0      |
| Very important   | 22.6                 | 38.0                      | 73.2                   | 43.1                | 59.8        | 51.7      |
| Mean score       | 3.0                  | 3.2                       | 3.7                    | 3.3                 | 3.6         | 3.4       |
| P-value          | 0.0                  | 0.0                       | 0.15                   | 0.02                | N/A         | N/A       |

*Perceived Importance of government-run health insurance:* In the case of government-run health insurance, all groups rates rated it as somewhere between important and very important, although closer in each case to very important (3.6-3.7). Production grantees rated health insurance the lowest at

3.6, barely below the control mean of 3.7. Even so, the difference between the treatment and control groups is statistically significant.

**Table 99 Perceived Importance of Government-Run Health Insurance**

|                  | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|------------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Very unimportant | 1.5                  | .4                        | 1.3                    | 0.9                 | .5          | .7        |
| Unimportant      | 5.3                  | 3.5                       | 3.4                    | 3.8                 | 3.0         | 3.5       |
| Important        | 25.6                 | 24.6                      | 18.1                   | 22.7                | 21.9        | 22.5      |
| Very important   | 67.7                 | 71.5                      | 77.2                   | 72.6                | 74.6        | 73.3      |
| Mean score       | 3.6                  | 3.7                       | 3.7                    | 3.7                 | 3.7         | 3.7       |
| P-value          | .04                  | .42                       | .89                    | .40                 | N/A         | N/A       |

*Household Expenditures:* The survey asked a series of questions about the respondent households' weekly, monthly, and yearly expenditures, including the cash value, imputed value of home produced goods and services, and the imputed value of gifted goods and services. The expenditure values were totaled, adjusted to represent daily expenditures, and divided by the number of household members to arrive at the daily per capita household expenditures (DPCE). Livelihood package recipients have the smallest DPCE at GEL 2.50 followed by control respondents at GEL 3.10 and then at some distance by agricultural trainees at GEL 5.29 and production grantees at GEL 5.99. The share of food expenditures in total expenditures follows a similar pattern being highest among livelihood package recipients and control respondents and lowest among agricultural trainees and production grantees. The differences between the treatment respondents and control respondents in all cases are statistically significant.

**Table 840 Household Expenditures**

|                                                         | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|---------------------------------------------------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Daily per capita household expenditures (GEL)           | 5.99                 | 5.29                      | 2.50                   | 4.70                | 3.10        | 3.89      |
| Food expenditures as a percentage of total expenditures | 59.500               | 54.700                    | 70.600                 | 58.400              | 67.800      | 61.700    |
| P-value                                                 | .00                  | .00                       | .01                    | .00                 | N/A         | N/A       |

*Housing Status:* Another measure of household well-being is housing status. Over 90% of respondents in all groups own their home. No statistically significant differences were found between treatment and control households.

**Table 851 Housing Ownership Status**

|                | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|----------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Own            | 95.5                 | 97.2                      | 88.6                   | 94.4                | 92.5        | 93.5      |
| Rent           | 1.5                  | 0.0                       | 0.0                    | 0.4                 | 0.2         | 0.3       |
| Mortgaged      | 0.0                  | 0.0                       | 0.0                    | 0.0                 | 0.0         | 0.0       |
| Free occupancy | 3.0                  | 2.8                       | 11.4                   | 5.2                 | 7.3         | 6.2       |

The average size of the living space is 128.5 m<sup>2</sup> (421.5 ft<sup>2</sup>) and includes 4.9 rooms and 2.7 bedrooms. Livelihood package recipients have the smallest homes with the fewest number of rooms, again followed by control respondents, agricultural trainees, and production grantees. The differences between the treatment and control groups are statistically significant.

**Table 86 Size of House**

|                       | Production Grant | Agricultural Training | Livelihood Package | Total Treatment (%) | Control | Total |
|-----------------------|------------------|-----------------------|--------------------|---------------------|---------|-------|
| Area in square meters | 146.8            | 133.6                 | 115.2              | 132.7               | 125.2   | 128.5 |
| P-value               | .00              | .08                   | .10                | .04                 | NA      | NA    |

**Table 873 Number of Rooms in House**

|                       | Production Grant | Agricultural Training | Livelihood Package | Total Treatment (%) | Control | Total |
|-----------------------|------------------|-----------------------|--------------------|---------------------|---------|-------|
| Total number of rooms | 5.4              | 5.2                   | 4.5                | 5.1                 | 4.7     | 4.9   |
| Number of bedrooms    | 3.1              | 2.9                   | 2.5                | 2.8                 | 2.6     | 2.7   |
| P-value               | .00              | .00                   | .02                | .00                 | NA      | NA    |

*Housing Conditions:* Yet another measure of household well-being is its access to services, such as electricity, phone, gas, water, etc. Approximately 80% of households and higher have electricity, wood

burning heating, and mobile phones, while over 60% or more of households have liquid gas supply in their homes, and another 10% or so have central gas supply. There are, however, some significant differences between the groups. Compared to control respondents, a significantly smaller percentage of treatment respondents have individual hot water systems, paid gas heating, landline telephone, internet, and mobile phones.

**Table 884 Housing Conditions**

|                               | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) | P-value |
|-------------------------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|---------|
| Hot water - central           | 1.5                  | 1.4                       | .7                     | 1.3                 | 1.1         | 1.2       | .73     |
| Hot water - individual        | 30.1                 | 20.4                      | 10.7                   | 20.4                | 14.4        | 17.3      | .01     |
| Electricity                   | 99.2                 | 99.6                      | 98.0                   | 99.1                | 98.8        | 98.9      | .60     |
| Gas supply - central          | 13.5                 | 11.3                      | 8.7                    | 10.8                | 10.0        | 10.5      | .76     |
| Liquid gas supply             | 71.4                 | 67.6                      | 57.0                   | 66.1                | 65.1        | 65.4      | .65     |
| Electric heating - individual | 1.5                  | 1.8                       | 0.7                    | 1.4                 | 0.7         | 1.1       | .22     |
| Gas heating - paid            | 2.3                  | 5.3                       | 0.7                    | 3.1                 | 0.9         | 2.1       | .03     |
| Gas heating – state provided  | 12.0                 | 2.8                       | 5.4                    | 5.8                 | 6.2         | 5.9       | .82     |
| Wood burning heating          | 85.0                 | 92.3                      | 88.6                   | 90.1                | 90.4        | 90        | .92     |
| Landline telephone            | 2.3                  | .7                        | 0.0                    | 0.9                 | 2.1         | 1.5       | .11     |
| Internet                      | 24.1                 | 14.4                      | 6.7                    | 14.6                | 5.9         | 10.3      | .00     |
| Mobile phone                  | 97.0                 | 91.9                      | 79.9                   | 90.1                | 78.6        | 84.3      | .00     |

*Livestock Ownership:* Just over 70% of respondent households own poultry (average 20.1 units per household), followed by cows in 64.4% households (average 1.8 units per household), calves in 45.2% (average 1.7 units per household), and pigs in 24.1% of households (average 2.0 units per household). Despite broad similarities in livestock ownership, there are significant statistical differences between treatment and control responses in terms of livestock ownership. Control households are less likely to own most items on the livestock list and to own a small number than the other groups, important exceptions being calves and pigs, while production grantees and agricultural trainees are more likely to own most of the animals on the list compared and more of these animals compared to both control respondents and livelihood package recipients.

**Table 895 Livestock Owned by Household**

|          | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) | P-value |
|----------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|---------|
| Cows     | 78.9                 | 71.5                      | 60.4                   | 70.9                | 58.4        | 64.4      | .00     |
| Bulls    | 12.8                 | 9.9                       | 2.7                    | 8.8                 | 5.7         | 7.2       | .00     |
| Calves   | 59.4                 | 51.8                      | 36.9                   | 49.5                | 40.7        | 45.2      | .00     |
| Sheep    | 2.3                  | 1.8                       | 2.0                    | 2                   | 0.9         | 1.4       | .49     |
| Goats    | 0.0                  | 2.1                       | 2.0                    | 1.6                 | 0.9         | 1.2       | .19     |
| Pigs     | 29.3                 | 25.4                      | 16.8                   | 24.2                | 24.2        | 24.1      | .86     |
| Poultry  | 72.2                 | 76.8                      | 70.5                   | 74.5                | 68.9        | 71.5      | .11     |
| Donkeys  | 0.8                  | 0.7                       | 0.7                    | 0.7                 | 0.2         | 0.4       | .61     |
| Horses   | 7.5                  | 4.2                       | 2.0                    | 4.3                 | 2.5         | 3.5       | .23     |
| Rabbits  | 3.0                  | 5.6                       | 5.4                    | 4.7                 | 1.2         | 3.1       | .00     |
| Beehives | 15.8                 | 13.7                      | 13.4                   | 14.3                | 2.1         | 8.2       | .00     |

*Productive Land Ownership:* Seventy percent or more of all respondents have either one or two plots of land, with the average number of plots being 1.7 overall, 2.0 among agricultural trainees, 1.9 among livelihood package recipients, 1.8 among production grantees, and finally 1.5 among control respondents. The differences between treatment and control groups are statistically significant.

**Table 906 Land Used for Cultivation**

| Number of Plots | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|-----------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| 0               | 1.5                  | 2.5                       | 8.1                    | 3.8                 | 7.3         | 5.5       |
| 1               | 46.6                 | 47.9                      | 40.3                   | 44.8                | 55.3        | 50.4      |
| 2               | 34.6                 | 23.9                      | 29.5                   | 28.5                | 24.6        | 26.2      |
| 3               | 9.0                  | 12.0                      | 8.7                    | 10.6                | 7.1         | 8.8       |
| 4               | 5.3                  | 8.5                       | 9.4                    | 7.8                 | 3.9         | 5.9       |
| 5+              | 3.1                  | 5.4                       | 4.1                    | 4.6                 | 1.8         | 3.2       |
| Mean            | 1.8                  | 2.0                       | 1.9                    | 1.9                 | 1.5         | 1.7       |
| P-value         | .04                  | .00                       | .00                    | .00                 | N/A         | N/A       |

In terms of hectares of land owned, production grantees and agricultural trainees own on average 1.7 hectares and 1.0 hectares compared to 0.7 hectares for livelihood package recipients and 0.6 hectares for control respondents. The differences between treatment and control groups are statistically significant.

**Table 917 Area of Land Holding**

| Area of the land             | Production Grant (Ha) | Agricultural Training (Ha) | Livelihood Package (Ha) | Total Treatment (Ha) | Control (Ha) | Total (Ha) |
|------------------------------|-----------------------|----------------------------|-------------------------|----------------------|--------------|------------|
| Owned                        | 1.7                   | 1.0                        | 0.7                     | 1.1                  | 0.6          | 0.8        |
| Rented Total                 | 0.4                   | 0.3                        | 0.2                     | 0.0                  | 0.0          | 0.2        |
| Rented from state            | 0.4                   | 0.0                        | 0.0                     | 0.01                 | 0.0          | 0.0        |
| Rented from a private person | 0.0                   | 0.03                       | 0.2                     | 0.02                 | 0.0          | 0.1        |
| Total area                   | 1.7                   | 1.0                        | 0.7                     | 1.1                  | 0.6          | 0.9        |
| P-value                      | .00                   | .00                        | .22                     | .00                  | N/A          | N/A        |

*Comparison of treatment and control groups:* Overall, treatment households fare better than their control counterparts on measures of economic well-being. Treatment respondents are less likely to be poor (and more likely to be middle class or above), own more and larger plots of agricultural land, have higher household expenditures while spending less proportionately on food, have larger homes, and own more livestock. Despite this, control households are more likely to own certain important household assets and enjoy greater access to basic services, such as hot water, gas heating, landlines, and mobile phones.

Notwithstanding the above differences, the treatment and control households are similar on a number of other measures of household well-being. Specifically, they are equally likely to own certain agricultural assets, receive social assistance or participate in government-run health insurance (although control respondents are more likely to say that social assistance is 'very important'), and own their homes and equally unlikely to engage in coping strategies or to be food insecure. The two groups are also equally likely to have experienced positive/negative changes in household economic conditions and are equally optimistic/pessimistic about their future economic conditions.

## 7.3 Vegetable and Grain Production

*Crops cultivated:* Vegetable and grain production is an important part of local agriculture. Survey respondents were asked to answer a set of questions so as to determine their production practices and patterns. As seen in the table below, 32.1% of all respondents were involved in tomato production followed by 23.5% in potato production and 19.4% in cucumber production. Any differences in production patterns between treatment and control respondents is statistically insignificant, with the exception of potato production, where the control households seem to be more involved. Within the three treatment groups, production grantees are much less likely to cultivate most of the listed crops than are agricultural trainees and livelihood package recipients.

**Table 9208 Whether Cultivate Crop during Last Growing Season**

|              | Production Grant |      | Agricultural Training |      | Livelihood Package |      | Control |      | Total |      |
|--------------|------------------|------|-----------------------|------|--------------------|------|---------|------|-------|------|
|              | N                | %    | N                     | %    | N                  | %    | N       | %    | N     | %    |
| Tomato       | 26               | 19.5 | 97                    | 35.0 | 59                 | 40.1 | 181     | 31.5 | 363   | 32.1 |
| Cucumber     | 22               | 16.5 | 65                    | 23.7 | 34                 | 23.1 | 98      | 17.1 | 219   | 19.4 |
| Eggplant     | 5                | 3.8  | 8                     | 2.9  | 3                  | 2.0  | 12      | 2.1  | 28    | 2.5  |
| Pepper       | 17               | 12.8 | 44                    | 15.7 | 25                 | 17.0 | 74      | 12.9 | 160   | 14.1 |
| Lettuce      | 12               | 9.0  | 6                     | 2.6  | 2                  | 1.4  | 5       | 1.0  | 27    | 2.4  |
| Herbs/Greens | 17               | 12.8 | 47                    | 17.5 | 27                 | 18.4 | 78      | 13.4 | 169   | 15   |
| Beets        | 0                | 0.0  | 5                     | 1.8  | 4                  | 2.7  | 15      | 3.0  | 26    | 2.3  |
| Onions       | 4                | 3.0  | 14                    | 5.1  | 21                 | 14.3 | 61      | 10.5 | 99    | 8.8  |
| Carrots      | 0                | 0.0  | 8                     | 2.9  | 3                  | 2.0  | 17      | 3.0  | 28    | 2.5  |
| Potato       | 17               | 12.8 | 56                    | 20.4 | 34                 | 23.1 | 167     | 29.1 | 274   | 23.5 |
| Grain        | 1                | 0.8  | 15                    | 5.5  | 16                 | 10.9 | 81      | 14.1 | 113   | 10.0 |

*Open field and greenhouse crops cultivated:* The majority of vegetable and grain production is done in an open field. Production grantees report the most frequent use of greenhouses, especially in tomato and cucumber production. One in three livelihood package recipients grows eggplants in a greenhouse, compared to 20% of production grantees. Livelihood package recipients, however, report much smaller numbers on the use of greenhouses when it comes to tomatoes and cucumbers (3% both), compared to 12%-18% by production grantees and 3%-12% by agricultural training participants. The reported use of

greenhouses by control respondents is almost as low as in case of livelihood package recipients (3% and 2% in case of tomatoes and cucumbers).

**Table 9309 Whether Cultivated Crop during Last Growing Season in Open Field**

|              | Production Grant |     | Agricultural Training |     | Livelihood Package |     | Control |     | Total |     |
|--------------|------------------|-----|-----------------------|-----|--------------------|-----|---------|-----|-------|-----|
|              | N                | %   | N                     | %   | N                  | %   | N       | %   | N     | %   |
| Tomato       | 23               | 88  | 91                    | 97  | 56                 | 97  | 175     | 97  | 345   | 96  |
| Cucumber     | 18               | 82  | 57                    | 88  | 32                 | 97  | 96      | 98  | 203   | 93  |
| Eggplant     | 4                | 80  | 8                     | 100 | 2                  | 67  | 12      | 100 | 26    | 93  |
| Pepper       | 16               | 94  | 43                    | 100 | 24                 | 96  | 73      | 98  | 156   | 98  |
| Lettuce      | 10               | 83  | 3                     | 50  | 2                  | 100 | 6       | 100 | 21    | 81  |
| Herbs/Greens | 15               | 94  | 41                    | 89  | 23                 | 100 | 73      | 99  | 152   | 96  |
| Beets        | 5                | 100 | 0                     | 0   | 3                  | 100 | 17      | 100 | 25    | 100 |
| Onions       | 3                | 75  | 14                    | 100 | 19                 | 95  | 60      | 100 | 96    | 98  |
| Potato       | 17               | 100 | 54                    | 96  | 30                 | 94  | 165     | 99  | 266   | 98  |
| Carrot       | 8                | 100 | 3                     | 100 | 0                  | 0   | 15      | 98  | 25    | 93  |
| Grain        | 1                | 100 | 15                    | 100 | 16                 | 100 | 81      | 100 | 113   | 100 |

**Table 940 Whether Cultivated Crop during Last Growing Season in Greenhouse**

|              | Production Grant |    | Agricultural Training |    | Livelihood Package |    | Control |   | Total |    |
|--------------|------------------|----|-----------------------|----|--------------------|----|---------|---|-------|----|
|              | N                | %  | N                     | %  | N                  | %  | N       | % | N     | %  |
| Tomato       | 3                | 12 | 3                     | 3  | 2                  | 3  | 6       | 3 | 14    | 4  |
| Cucumber     | 4                | 18 | 8                     | 12 | 1                  | 3  | 2       | 2 | 15    | 7  |
| Eggplant     | 1                | 20 | 0                     | 0  | 1                  | 33 | 0       | 0 | 2     | 7  |
| Pepper       | 1                | 6  | 0                     | 0  | 1                  | 4  | 1       | 1 | 3     | 2  |
| Lettuce      | 2                | 17 | 3                     | 50 | 0                  | 0  | 0       | 0 | 5     | 19 |
| Herbs/Greens | 1                | 6  | 5                     | 11 | 0                  | 0  | 1       | 1 | 7     | 4  |
| Beets        | 0                | 0  | 0                     | 0  | 0                  | 0  | 0       | 0 | 0     | 0  |
| Onions       | 1                | 25 | 0                     | 0  | 1                  | 5  | 0       | 0 | 2     | 2  |
| Potato       | 0                | 0  | 2                     | 4  | 2                  | 4  | 1       | 1 | 5     | 2  |

|        |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|
| Carrot | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 2 | 7 |
| Grain  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

*Number of years cultivating crop:* Respondents in all groups have typically cultivated the relevant crop for multiple years, in most cases more than 10 years. Crops where the number of years cultivating is significantly different among treatment and control respondents include: cucumber, lettuce, potatoes, onions, and grain.

**Table 951 Number of Years Cultivating Crop**

|              | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|--------------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Tomato       | 14               | 16                    | 17                 | 16              | 18      | 17    |
| Cucumber     | 15               | 16                    | 21                 | 18              | 21      | 19    |
| Eggplant     | 19               | 17                    | 12                 | 17              | 23      | 19    |
| Pepper       | 20               | 21                    | 23                 | 22              | 23      | 22    |
| Lettuce      | 5                | 13                    | 8                  | 14              | 27      | 12    |
| Herbs/Greens | 19               | 19                    | 23                 | 20              | 21      | 21    |
| Beets        | 0                | 11                    | 5                  | 9               | 13      | 12    |
| Onions       | 6                | 17                    | 14                 | 14              | 16      | 15    |
| Potato       | 0                | 15                    | 7                  | 13              | 16      | 15    |
| Carrot       | 14               | 18                    | 14                 | 16              | 19      | 18    |
| Grain        | 30               | 14                    | 8                  | 12              | 18      | 16    |

*Land area used to cultivate crop:* There are minor differences between treatment and control communities in terms of the total land area used to cultivate different crops. Potatoes, an obvious exception, take up the largest share of agricultural land used for cultivation both by treatment and control respondents at 1.95 hectares followed by grain production at 0.67 hectares. Production grantees use an average 6.7 hectares for potato production, followed by 3.64 by agriculture training participants and 0.19 for livelihood package recipients. Production grantees used an average 6.7 hectares for potato production, followed by 3.6 hectares by agriculture training participants and only 0.2 hectares by livelihood package recipients. Control households used 1.31 hectares of land to produced potatoes. The differences in land area between the treatment and control groups are for the most part

insignificant with the exception of tomatoes and herbs/greens for agricultural trainees and beets and carrots for livelihood package recipients.

**Table 962 Land Area Used to Cultivate Crop**

|              | Production Grant (Ha) | Agricultural Training (Ha) | Livelihood Package (Ha) | Total Treatment (Ha) | Control (Ha) | Total (Ha) |
|--------------|-----------------------|----------------------------|-------------------------|----------------------|--------------|------------|
| Tomato       | .06                   | .17                        | .09                     | .14                  | .11          | .12        |
| Cucumber     | .07                   | .10                        | .02                     | .10                  | .06          | .06        |
| Eggplant     | .11                   | .00                        | .03                     | .00                  | .01          | .03        |
| Pepper       | .00                   | .01                        | .03                     | .01                  | .46          | .22        |
| Lettuce      | .09                   | .10                        | .00                     | .00                  | .00          | .07        |
| Herbs/Greens | .00                   | .04                        | .01                     | .09                  | .01          | .02        |
| Beets        | .00                   | .18                        | .23                     | .02                  | .07          | .12        |
| Onions       | .02                   | .18                        | .24                     | .28                  | .18          | .19        |
| Carrot       | .00                   | .02                        | .13                     | .20                  | .04          | .04        |
| Potato       | 6.24                  | 3.64                       | .19                     | .14                  | 1.31         | 1.95       |
| Grain        | .90                   | .65                        | .86                     | .10                  | .63          | .67        |
| Total        | 0.1                   | 0.2                        | 0.3                     | 0.6                  | 0.25         | 0.20       |

*Kilograms produced:* Survey respondents harvested over two tons of grains—2,294 kgs on average—during the past cropping season, followed at some distance by potatoes at 699 kgs and eggplants at 586 kgs. Tomatoes, cucumbers and lettuce share the next three spots on the list at 400 kgs, 273 kgs, and 313 kgs. There are statistically significant differences between the treatment and control respondents. Production grantees significantly surpass the production levels of control respondents in tomatoes, cucumbers, lettuce, onions, and potatoes. Agricultural trainees surpass control production in tomatoes and cucumbers, while livelihood package recipients surpass control production in eggplant, pepper, and onions. Overall, treatment respondents produced significantly more of the listed crops than did the control respondents during the last growing season.

**Table 973 Kilograms Produced during Last Growing Season**

|              | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|--------------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Tomato       | 757              | 593                   | 253                | 504             | 295     | 400   |
| Cucumber     | 387              | 626                   | 115                | 442             | 62      | 273   |
| Eggplant     | 2,226            | 30                    | 1,255              | 989             | 23      | 586   |
| Pepper       | 8                | 12                    | 120                | 43              | 10      | 28    |
| Broccoli     | 0                | 0                     | 0                  | 0               | 0       | 0     |
| Lettuce      | 531              | 237                   | 152                | 391             | 94      | 313   |
| Herbs/Greens | 10               | 18                    | 7                  | 13              | 24      | 18    |
| Beets        | 0                | 10                    | 35                 | 18              | 128     | 90    |
| Onions       | 156              | 88                    | 171                | 140             | 66      | 94    |
| Carrot       | 0                | 51                    | 15                 | 47              | 38      | 41    |
| Potato       | 5,915            | 440                   | 302                | 1,255           | 355     | 699   |
| Grain        | 3,000            | 1,748                 | 2,944              | 2,328           | 2,282   | 2,294 |
| Total        | 12,990           | 3,853                 | 5,369              | 6,170           | 3,377   | 4,836 |

*Kilograms produced per hectare:* Treatment respondents achieved higher overall levels of productivity (as measured by kgs per hectare) than control respondents, including in specific cases tomato, cucumber, eggplant, pepper, herbs/greens, and grain production, while control respondents achieved higher levels of productivity in onion, carrot, and potato production. Overall, respondents achieved the highest productivity levels in herbs/greens, grain, carrots, cucumbers, and tomatoes.

**Table 984 Production Yields during Last Growing Season (Kg per Ha)**

|              | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total  |
|--------------|------------------|-----------------------|--------------------|-----------------|---------|--------|
| Tomato       | 11,097           | 6,063                 | 9,173              | 7,922           | 5,943   | 6,973  |
| Cucumber     | 14,503           | 7,655                 | 8,371              | 9,310           | 5,285   | 7,683  |
| Eggplant     | 108              | 3                     | 343                | 120             | 14      | 66     |
| Pepper       | 3,300            | 5,349                 | 6,628              | 5,331           | 3,811   | 4,631  |
| Lettuce      | -                | -                     | -                  | -               | -       | -      |
| Herbs/Greens | 93,442           | 5,831                 | 77,500             | 64,097          | 13,100  | 50,367 |
| Beets        | 6,075            | 5,398                 | 3,850              | 5,078           | 7,388   | 6,096  |
| Onions       | 0                | 344                   | 2,025              | 904             | 2,131   | 1,744  |
| Carrot       | 13,667           | 6,232                 | 5,706              | 6,528           | 12,477  | 10,147 |
| Potato       | 0                | 4,394                 | 300                | 3,810           | 5,218   | 4,789  |
| Grain        | 116,03           | 26,419                | 8,531              | 18,145          | 15,001  | 16,188 |

*Kilograms sold:* Production grantees lead all other respondent groups in terms of the kgs of crops sold, except for cucumbers, where agricultural trainees have averaged the most kgs sold. There are significant differences between the treatment and control respondents in terms of kgs sold. Control communities lag behind significantly on almost all crops on the list, or achieve the sales that are similar to the lowest sales among the treatment groups. Production grantees significantly surpass the sales levels of control respondents in cucumbers, eggplant, lettuce, onions, and potatoes. Agricultural trainees surpass control production in tomatoes, cucumbers, and herbs/greens, while livelihood package recipients surpass control production in eggplant, pepper, and grains. Overall, treatment respondents sold significantly more of the listed vegetables over the last 12 months than did control respondents.

**Table 995 Kilograms Sold during Last Growing Season**

|          | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|----------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Tomato   | 440              | 426                   | 152                | 339             | 180     | 258   |
| Cucumber | 309              | 466                   | 76                 | 330             | 22      | 191   |
| Eggplant | 250              | 0                     | 833                | 233             | 0       | 129   |
| Pepper   | 0                | 1                     | 102                | 31              | 1       | 17    |
| Lettuce  | 530              | 228                   | 150                | 387             | 64      | 303   |

|              |       |       |       |       |     |       |
|--------------|-------|-------|-------|-------|-----|-------|
| Herbs/Greens | 0     | 9     | 0     | 4     | 1   | 6     |
| Beets        | 0     | 0     | 0     | 0     | 44  | 30    |
| Onions       | 83    | 38    | 14    | 28    | 15  | 21    |
| Carrot       | 0     | 0     | 0     | 0.0   | 20  | 15    |
| Potato       | 4,913 | 76    | 17    | 804   | 47  | 330   |
| Grain        | 0     | 121   | 539   | 311   | 135 | 181   |
| Total Sum    | 6,525 | 1,365 | 1,883 | 2,467 | 529 | 1,481 |

*Percent of harvest used for home consumption:* Respondents consumed on average around 56% of all vegetables produced, including 51% of treatment respondents and 60% of control respondents. The difference is statistically significant (p-value=.01).

**Table 1006 Total Percentage of Crops Consumed by Household during Last Growing Season**

|          | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|----------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Consumed | 40.1                 | 49.6                      | 61.2                   | 51.1                | 59.8        | 55.9      |

*Percent of harvest used for seed:* Respondents used on average around 3% of all vegetables produced for seed, including 2.1% of treatment respondents and 4.3% of control respondents. The difference is statistically significant (p-value=.00).

**Table 1017 Total Percentage of Crops Used for Seed during Last Growing Season**

|               | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|---------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Used for seed | 1.6                  | 2.5                       | 2                      | 2.1                 | 4.3         | 3.2       |

*Percent of harvest used for animals:* Respondents used on average around 5% of all vegetables produced for animals, including 2.4% of treatment respondents and 7% of control respondents. The difference is statistically significant (p-value=.00).

**Table 118 Total Percentage of Crops Used for Animals during Last Growing Season**

|                  | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|------------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Used for animals | 2.0                  | 3.0                       | 1.4                    | 2.4                 | 7.0         | 4.9       |

*Percent of harvest lost to wastage:* Respondents lost on average around 18% of all vegetables produced to wastage, including 25.8% of treatment respondents and 12.9% of control respondents. The difference is statistically significant (p-value=.01).

**Table 10219 Total Percentage of Crops Lost due to Wastage during Last Growing Season**

|         | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|---------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Wastage | 8.8                  | 40.9                      | 9.1                    | 25.8                | 12.9        | 18.4      |

*Total Sales:* Respondents sold on average GEL 1,114 in vegetables during the last growing season, including GEL 1,420 among treatment respondents and GEL 603 among control respondents. The difference is statistically significant (p-value=.06).

**Table 103 Total Value of Crops Sold during Last Growing Season (GEL)**

|       | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|-------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Sales | 2,172            | 1,136                 | 1,090              | 1,420           | 603     | 1,114 |

*Net Income:* Respondents earned on average GEL 482 on vegetable production during the last growing season, including GEL 698 among treatment respondents and GEL 143 among control respondents. The difference is statistically significant (p-value=.01).

**Table 104 Net Income Earned during Last Growing Season (GEL)**

|            | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|------------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Net income | 1,401            | 322                   | 677                | 698             | 143     | 483   |

*Full-time equivalent employees:* Respondents hired on average 0.3 full-time equivalent employees (FTEs) during the last growing season, including 0.4 among treatment respondents and 0.2 among control respondents. The difference is not statistically significant.

**Table 105 Full-Time Equivalent Employees**

|      | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| FTEs | 0.4              | 0.4                   | 0.0                | 0.4             | 0.2     | 0.3   |

*Summary:* Treatment and control respondents produce a wide variety of vegetables and grains, although with a heavy concentration in tomatoes, potatoes, and cucumbers, each of which they have produced in excess of 10 years on average with control respondents having significantly greater experience producing cucumbers, lettuce, potatoes, onions, and grain. Respondents in both groups typically produce vegetables on small plots of land averaging less than 0.2 hectares. Treatment respondents consistently produce more of each crop in terms of kgs and are also on average more productive in terms of kgs produced per hectare. Treatment respondents also sell significantly more, both in terms of kgs and lari value, and also earn significantly more after expenses by GEL 698 to GEL 143. Both groups consume on average more than 50% of what they produce and lose from 13% (control) to 25% (treatment) to wastage. Finally, neither group employs many people to produce vegetables with the number of FTEs hired equal to only 0.3 on average.

## 7.4 Cane Fruit Production

NEO is working to promote the introduction and/or production of cane fruits within its project communities. NEO beneficiaries participating in the survey cultivate four cane fruits: strawberries, raspberries, blackberries, and wine grapes. Production and sales figures for these four crops among NEO beneficiaries and control respondents are summarized below.

*Crops cultivated:* Production among treatment respondents is heavily concentrated in wine grapes for each of the three treatment respondents and for the control respondents. Twenty-four of the treatment respondents are also producing strawberries compared to zero control respondents. Few treatment respondents are producing either raspberries (5) or blackberries (2), whereas in the control group, only a single respondent is producing raspberries and none are producing blackberries.

**Table 1063 Whether Cultivate Crop during Last Growing Season**

|            | Production Grant |      | Agricultural Training |      | Livelihood Package |      | Control |     | Total |      |
|------------|------------------|------|-----------------------|------|--------------------|------|---------|-----|-------|------|
|            | N                | %    | N                     | %    | N                  | %    | N       | %   | N     | %    |
| Strawberry | 15               | 11.0 | 7                     | 2.6  | 2                  | 1.4  | 0       | 0.0 | 24    | 2.1  |
| Raspberry  | 2                | 1.5  | 3                     | 1.1  | 0                  | 0.0  | 1       | 0.2 | 6     | 0.5  |
| Blackberry | 1                | 0.8  | 1                     | 0.4  | 0                  | 0.0  | 0       | 0.0 | 2     | 0.2  |
| Wine Grape | 17               | 12.8 | 38                    | 13.9 | 27                 | 18.4 | 69      | 12  | 151   | 13.4 |

*Open field and greenhouse crops cultivated:* The large majority of cane fruits production by both treatment and control respondents is open field production. No more than one or two respondents in either the treatment or control groups are involved in greenhouse production.

**Table 1074 Whether Cultivated Crop during Last Growing Season in Open Field**

|            | Production Grant |      | Agricultural Training |      | Livelihood Package |      | Control |      | Total |      |
|------------|------------------|------|-----------------------|------|--------------------|------|---------|------|-------|------|
|            | N                | %    | N                     | %    | N                  | %    | N       | %    | N     | %    |
| Strawberry | 14               | 93.7 | 5                     | 74.4 | 1                  | 50   | 0       | 0.0  | 20    | 83.3 |
| Raspberry  | 1                | 50   | 3                     | 100  | 0                  | 0.0  | 1       | 100  | 4     | 66.7 |
| Blackberry | 1                | 100  | 1                     | 100  | 0                  | 0.0  | 0       | 0.0  | 2     | 100  |
| Wine Grape | 16               | 94.1 | 36                    | 94.7 | 26                 | 96.3 | 67      | 97.1 | 145   | 96   |

**Table 1085 Whether Cultivated Crop during Last Growing Season in Greenhouse**

|            | Production Grant |     | Agricultural Training |      | Livelihood Package |     | Control |     | Total |      |
|------------|------------------|-----|-----------------------|------|--------------------|-----|---------|-----|-------|------|
|            | N                | %   | N                     | %    | N                  | %   | N       | %   | N     | %    |
| Strawberry | 1                | 6.4 | 2                     | 28.6 | 1                  | 50  | 0       | 0.0 | 4     | 16.7 |
| Raspberry  | 1                | 50  | 0                     | 0.0  | 0                  | 0.0 | 0       | 0.0 | 2     | 33.3 |
| Wine Grape | 1                | 5.9 | 2                     | 5.3  | 1                  | 3.7 | 2       | 2.9 | 6     | 4.0  |

*Number of years cultivating crop:* Respondents have relatively little experience cultivating strawberries, raspberries, or blackberries. In contrast, respondents, with the exception of production grantees, have 15 or more years of experience cultivating wine grapes. The difference is statistically significant.

**Table 1096 Number of Years Cultivating Crop**

|            | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total | P-value |
|------------|------------------|-----------------------|--------------------|-----------------|---------|-------|---------|
| Strawberry | 0.7              | 0.7                   | 6.0                | 1.1             | 0.0     | 1.1   | N/A     |
| Raspberry  | 0.5              | 3.0                   | 0.0                | 2.0             | 20.0    | 5.0   | .01     |
| Blackberry | 1.0              | N/A                   | 0.0                | 0.5             | 0.0     | N/A   | N/A     |
| Wine Grape | 32.1             | 28.8                  | 27.3               | 28.9            | 24.0    | 26.8  | .09     |

*Land area used to cultivate crops:* Treatment respondents producing all four can fruits devoted on average more land to strawberry production than either raspberry or blackberry production. In terms of wine grapes, agricultural trainees devoted the most amount of land for production followed by livelihood package recipients, control respondents, and production grantees. The differences between the treatment and control groups are not statistically significant.

**Table 1107 Land Area Used to Cultivate Crop (Square Meters)**

|            | Production Grant | Agricultural Training | Livelihood Package | Treatment Total | Control | Total |
|------------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Strawberry | 2,508            | 1,671                 | 4,000              | 2371            | 0       | 2371  |
| Raspberry  | 2,750            | 650                   | 0                  | 1700            | 20      | 1364  |
| Blackberry | 1,500            | 100                   | 0                  | 800             | 0       | 800   |
| Wine Grape | 384              | 765                   | 591                | 622             | 521     | 576   |

*Kilograms produced:* Production grantees produced by far the most strawberries and raspberries compared to all other study groups. In terms of wine grapes, production grantees again produced the most followed by livelihood package recipients, agricultural trainees, and control respondents. The production differences between treatment and control groups is not statistically significant, with the exception that production grantees are producing significantly more kgs of wine grapes than control respondents (p-value=.04).

**Table 11128 Kilograms Produced during Last Growing Season**

|            | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|------------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Strawberry | 1,295            | 411                   | 68                 | 935             | 0       | 1,102 |
| Raspberry  | 705              | 15                    | 0                  | 360             | 2       | 240   |
| Wine Grape | 1,115            | 321                   | 403                | 516             | 267     | 317   |
| Total      | 1,243            | 328                   | 379                | 620             | 267     | 481   |

*Kilograms produced per square meter:* Treatment respondents achieved consistently and significantly higher productivity levels than control respondents anywhere from doubling to more than tripling the productivity levels of their control counterparts.

**Table 11229 Production Yields during Last Growing Season**

|            | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total   |
|------------|------------------|-----------------------|--------------------|-----------------|---------|---------|
| Strawberry | 5,427            | 7,361                 | 158                | 5,552           | N/A     | 5,552   |
| Raspberry  | 6,000            | 167                   | N/A                | 4,056           | 1,000   | 3,292   |
| Wine Grape | 57,208           | 7,958                 | 17,434             | 22,262          | 11,912  | 176,260 |

*Kilograms sold:* Production grantees and livelihood package recipients sold a significantly larger number of kilograms of wine grapes than did the control respondents, while the difference between production grantees and control respondents is insignificant.

**Table 1130 Kilograms Sold during Last Growing Season**

|            | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|------------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Strawberry | 925              | 613                   | 50                 | 246             | 0       | 711   |
| Raspberry  | 500              | 0                     | 0                  | 125             | 0       | 500   |
| Wine Grape | 300              | 0                     | 1,000              | 164             | 138     | 308   |
| Total      | 651              | 54                    | 39                 | 228             | 8       | 141   |

*Percent of harvest used for home consumption:* Respondents consumed on average around 42% of all cane fruits produced, including 47% of treatment respondents and 35% of control respondents. The difference is statistically significant ( $p=.00$ ).

**Table 1141 Total Percentage of Crops Consumed by Household during Last Growing Season**

|          | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|----------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Consumed | 48                   | 46                        | 38                     | 47                  | 35          | 42        |

*Percent of harvest used for seed:* Respondents used on average only around 0.2% of all cane fruits produced for seed, including 0.2% of treatment respondents and 0% of control respondents. The difference is not statistically significant.

**Table 1152 Total Percentage of Crops Used for Seed during Last Growing Season**

|               | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|---------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Used for seed | 0                    | 0.3                       | 0.3                    | 0.2                 | 0.0         | 0.2       |

*Percent of harvest lost to wastage:* Respondents lost on average nearly 5% of all cane fruits produced to wastage during the last growing season, including 5.4% among treatment respondents and 4.0% among control respondents. The difference is not statistically significant.

**Table 1163 Total Percentage of Crops Lost due to Wastage during Last Growing Season**

|         | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|---------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Wastage | 2.0                  | 8.3                       | 4.8                    | 5.4                 | 4.0         | 4.9       |

*Total sales:* Respondents sold on average GEL 1,310 in cane fruits during the last growing season, including GEL 1,565 among treatment respondents and GEL 160 among control respondents. The difference is statistically significant ( $p=.05$ ).

**Table 117 Total Value of Crops Sold during Last Growing Season (GEL)**

|             | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|-------------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Total sales | 2,091            | 676                   | 823                | 1,565           | 160     | 1,310 |

*Net income:* Respondents earned on average GEL 382 from cane fruit production during the last growing season, including GEL 642 among treatment respondents and GEL 11 among control respondents. The difference is statistically significant ( $p=.05$ ).

**Table 1185 Net Income Earned during Last Growing Season (GEL)**

|             | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|-------------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Total sales | 2,064            | 173                   | 108                | 642             | 11      | 382   |

*Full-time equivalent employees:* Treatment respondents hired on average 0.39 FTEs during the last growing season compared to 0 FTEs hired by control respondents.

**Table 1196 Full-Time Equivalent Employees**

|      | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| FTEs | 0.37             | 0.45                  | N/A                | 0.39            | N/A     | 0.39  |

*Summary:* Cane fruit production in both groups was concentrated heavily in wine grape production and to a lesser extent in strawberries among livelihood package recipients with relatively few treatment respondents and almost no control respondents producing raspberries and blackberries. Respondents in both groups have an average over 20 years producing wine grapes, while treatment respondents overall have relatively little experience producing strawberries, raspberries, and blackberries, with the exception of livelihood package recipients, who have over six years of experience. Treatment and control respondents use about the same amount of land to produce wine grapes at 576 square meters. Compared to control respondents, treatment respondents on average produce more than double the kgs of wine grapes, are significantly more productive in terms of kgs produced per square meter, sell significantly more kgs, use significantly more grapes for home consumption, have significantly larger grape sales, and earn significantly more income from grape sales. Finally, treatment respondents hire only 0.39 FTEs on average compared to 0 FTEs hired by control respondents.

## 7.5 Stone Fruit and Hazelnut Production

*Crops cultivated:* In addition to fruits and grains, NEO is promoting the production of stone (tree) fruits and hazelnuts. Survey respondents in all groups are drawn primarily from hazelnut producers followed

by apples and pears and then to a much lesser extent by plums and cherries. On balance, control respondents are more likely to produce each of the stone fruits relative to treatment respondents with the exception of hazelnuts where share of hazelnut producers is similar to production grantees and agricultural trainees.

**Table 12037 Whether Cultivated Crop during Last Growing Season**

|          | Production Grant |      | Agricultural Training |      | Livelihood Package |      | Control |      | Total |      |
|----------|------------------|------|-----------------------|------|--------------------|------|---------|------|-------|------|
|          | N                | %    | N                     | %    | N                  | %    | N       | %    | N     | %    |
| Apple    | 4                | 3.0  | 23                    | 8.4  | 11                 | 7.5  | 73      | 12.7 | 111   | 9.8  |
| Pear     | 2                | 1.5  | 4                     | 1.5  | 0                  | 0.0  | 28      | 4.9  | 34    | 3.0  |
| Plum     | 1                | 0.8  | 7                     | 2.6  | 0                  | 0.0  | 15      | 2.6  | 23    | 2.0  |
| Cherry   | 0                | 0.0  | 1                     | 0.4  | 0                  | 0.0  | 4       | 0.7  | 5     | 0.4  |
| Hazelnut | 66               | 49.6 | 122                   | 44.5 | 15                 | 30.6 | 248     | 43.2 | 481   | 42.6 |

*Number of years cultivating crops:* Respondents in all four groups have in excess of 10 years of experience producing each of the tree fruits/nuts in question with the exception of cherries. The profile for the respondents looks broadly similar, with the notable exception of pears, where production grantees have on average 40 years of experiences. Notwithstanding, the differences between treatment and control groups are not statistically significant, with the exceptions of hazelnut production where the years of experience among production grantees is significantly larger than control respondents (p-value=.01) and the experience among livelihood package recipients is statistically smaller than control respondents (p-value=.09).

**Table 121 Number of Years Cultivating Crop**

|          | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|----------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Apple    | 17.5             | 10.1                  | 11.2               | 11.3            | 13.9    | 12.9  |
| Pear     | 40.0             | 15.5                  | NA                 | 20.4            | 19.6    | 19.7  |
| Plum     | 0                | 10.6                  | NA                 | 10.6            | 11.8    | 11.4  |
| Cherry   | NA               | 1.0                   | NA                 | 1.0             | 6.8     | 5.6   |
| Hazelnut | 17.9             | 14.1                  | 12.1               | 14.7            | 14.5    | 14.6  |

*Land area used to cultivate crops:* With two exceptions, land devoted to the production of stone fruits and hazelnuts is less than one hectare, and in most cases, less than one-half of a hectare. The most notable exceptions are production grantees and agricultural trainees for apple production and production grantees, agricultural trainees, and control respondents for hazelnut production. Some significant differences do exist among the treatment and control groups. Production grantees and agricultural trainees use significantly more land for apple production than do control respondents ( $p$ -value=.00), while agricultural trainees use significantly more land for plum and cherry production than do control respondents ( $p$ -value=.00).

**Table 139 Land Area Used to Cultivate Crop (Hectares)**

|          | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|----------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Apple    | 3.85             | 0.51                  | 0.32               | 0.81            | 0.18    | 0.44  |
| Pear     | 0.01             | 0.13                  | 0.0                | 0.08            | 0.02    | 0.03  |
| Plum     | 0.0              | 0.12                  | 0.0                | 0.12            | 0.00    | 0.05  |
| Cherry   | 0.0              | 0.09                  | 0.0                | 0.09            | 0.02    | 0.04  |
| Hazelnut | 1.14             | 0.68                  | 0.37               | 0.75            | 0.93    | 0.84  |
| Total    | 1.32             | 0.65                  | 0.36               | 0.76            | 0.84    | 0.8   |

*Number of trees owned:* Production grantees own by far the most apple and hazelnut trees on average among the four study groups, while agricultural trainees own by far the largest number of pear trees. Production grantees and agricultural trainees both own a significantly larger number of trees for apple and pear production than do control respondents ( $p$ =.01), while the number of hazelnut trees owned by production grantees ( $p$ =.00) and the number of cherry trees owned ( $p$ =.06) by agricultural trainees also significantly exceeds the number owned by control respondents.

**Table 1220 Number of Trees Owned**

|          | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|----------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Apple    | 2,676            | 138                   | 52                 | 391             | 31      | 742   |
| Pear     | 15               | 45                    | 0                  | 39              | 4       | 21    |
| Plum     | 0                | 14                    | 0                  | 14              | 5       | 9     |
| Cherry   | 0                | 7                     | 0                  | 7               | 2       | 5     |
| Hazelnut | 706              | 381                   | 270                | 453             | 319     | 419   |

|       |     |     |     |     |     |     |
|-------|-----|-----|-----|-----|-----|-----|
| Total | 781 | 316 | 234 | 226 | 361 | 314 |
|-------|-----|-----|-----|-----|-----|-----|

*Number of trees cultivated:* The patterns for the number of trees cultivated is similar to the number of trees owned when comparing one study group to another. What is notable here, however, is that production grantees cultivated all of its apple trees and pear trees and over 90% of its hazelnut trees, which means that it is currently getting produce from 98% of its fruit/nut trees. The next closest are agricultural trainees who are getting produce from 94.2% of their trees, livelihood package recipients who are getting produce from 87% of their trees, and control respondents who are getting produce from 76% of their trees.

**Table 1231 Number of Trees Cultivated during Last Growing Season**

|          | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|----------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Apple    | 2,676            | 50                    | 31                 | 405             | 22      | 131   |
| Pear     | 15               | 32                    | -                  | 29              | 3       | 7     |
| Plum     | -                | 14                    | -                  | 14              | 4       | 5     |
| Cherry   | -                | 7                     | -                  | 7               | 2       | 4     |
| Hazelnut | 654              | 359                   | 249                | 422             | 293     | 356   |

*Kilograms produced:* Production grantees produced by far the most kgs of apples and hazelnuts during the last growing season followed in each case by agricultural trainees. Livelihood package recipients produced more apples but fewer hazelnuts than control respondents. In terms of pear, plum and cherry production, agricultural trainees produced the most kgs by large margins over production grantees (pears) and control respondents (pears, plums, and cherries). The difference between production grantees and control respondents is statistically significant in terms of apple and hazelnut production ( $p=.00$ ), while the difference between agricultural trainees and control respondents is statistically significant in terms of apple, pear, plum, and hazelnut production ( $p=.00$ ).

**Table 1242 Kilograms Produced during Last Growing Season**

|       | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|-------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Apple | 33,583           | 32,740                | 929                | 51,345          | 774     | 2,271 |
| Pear  | 100              | 760                   | 0                  | 629             | 108     | 195   |
| Plum  | 0                | 702                   | 0                  | 703             | 78      | 277   |

|          |       |     |     |       |     |     |
|----------|-------|-----|-----|-------|-----|-----|
| Cherry   | 0     | 300 | 0   | 300   | 20  | 140 |
| Hazelnut | 1,794 | 866 | 520 | 1,063 | 665 | 858 |
| Total    | 1648  | 666 | 225 | 785   | 383 | 580 |

*Kilograms produced per tree:* The kgs of fruit produced per tree was broadly similar within the treatment and control groups, including 35.7 kgs in apple production, 27.5 kgs in pear production, 18.4 kgs in plum production, 9.6 kgs in cherry production, and 2.5 kgs in hazelnut production. The differences between the treatment and control groups were not statistically significant.

**Table 1253 Kilograms Produced per Tree during Last Growing Season per Tree**

|          | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|----------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Apple    | 13.4             | 46.4                  | 41.8               | 40.4            | 33.7    | 35.7  |
| Pear     | 6.7              | 26.0                  | -                  | 22.1            | 28.6    | 27.5  |
| Plum     | -                | 27.0                  | -                  | 27.0            | 15.9    | 18.4  |
| Cherry   | -                | 8.8                   | -                  | 8.8             | 9.6     | 9.3   |
| Hazelnut | 3.6              | 2.4                   | 2.3                | 2.7             | 2.5     | 2.6   |
| Total    | 4                | 6.3                   | 7.5                | 5.9             | 7.4     | 6.7   |

*Kilograms sold:* Several of the respondents producing stonefruits or hazelnuts had not sold their harvest yet at the time of the survey, as they were waiting to sell until the prices rose. Thus the values in the table below are much lower than they would otherwise be. This also explains why the results reported below do not correspond with the values of kgs produced, as the latter represents the total population of farmers who harvested stone fruits or hazelnuts during the last production cycle. The number of persons reporting sales for each crop are indicated in parentheses in each of the relevant cells. That said, the treatment respondents consistently sold significantly more in kgs of the stone fruits than did their control counterparts.

**Table 1264 Kilograms Sold during Last Growing Season**

|       | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control       | Total          |
|-------|------------------|-----------------------|--------------------|-----------------|---------------|----------------|
| Apple | 100,000<br>(1)   | 3,205<br>(19)         | 905<br>(9)         | 5,829<br>(29)   | 1,905<br>(30) | 26,504<br>(59) |
| Pear  | 0                | 637<br>(4)            | 0                  | 637<br>(4)      | 175<br>(2)    | 406<br>(6)     |

|          |             |            |             |              |              |              |
|----------|-------------|------------|-------------|--------------|--------------|--------------|
| Plum     | 0           | 700<br>(1) | 0           | 0            | 215<br>(2)   | 400<br>(3)   |
| Cherry   | 0           | 370<br>(2) | 0           | 370<br>(2)   | 15<br>(1)    | 193<br>(3)   |
| Hazelnut | 837<br>(48) | 563<br>(2) | 441<br>(37) | 614<br>(171) | 438<br>(177) | 569<br>(264) |
| Total    | 2,057.9     | 50.7       | 28.0        | 36.0         | 13.1         | 13.3         |

*Percent of harvest used for home consumption:* Respondents consumed on average around 13% of all stone fruits produced, including 5.2% among treatment respondents and 33.7% among control respondents. The difference is statistically significant (p-value=.01).

**Table 12745 Total Percentage of Crops Consumed by Household during Last Growing Season**

|          | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|----------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Consumed | 10.3                 | 6.8                       | 7.6                    | 5.2                 | 33.7        | 12.7      |

*Percent of harvest used for animals:* Respondents used on average only around 0.8% of all stone fruits produced for animals, including 0.1% among treatment respondents and 2.2% among control respondents. The difference is not statistically significant.

**Table 12846 Total Percentage of Crops Used for Animals during Last Growing Season**

|               | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|---------------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Used for seed | 0.00                 | 0.2                       | 0.8                    | 0.1                 | 2.2         | 0.8       |

*Percent of harvest lost to wastage:* Respondents lost on average 4.5% of all stone fruits produced to wastage, including 5.2% among treatment respondents and 6.6% among control respondents. The difference is not statistically significant.

**Table 12947 Total Percentage of Crops Lost due to Wastage during Last Growing Season**

|         | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|---------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Wastage | 0.18                 | 7.6                       | 2.8                    | 5.2                 | 6.6         | 4.5       |

*Total Sales:* Respondents sold on average GEL 1,319 of stone fruits during the last growing season, including GEL 1,704 among treatment respondents and GEL 932 among control respondents. The difference is statistically significant (p-value=.01).

**Table 13048 Total Value of Crops Sold during Last Growing Season (GEL)**

|       | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|-------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Sales | 3,069            | 1,452                 | 871                | 1,705           | 932     | 1,319 |

*Net Income:* Respondents earned on average GEL 1,062 from stone fruit production during the last growing season, including GEL 1,251 among treatment respondents and GEL 889 among control respondents. The difference is statistically significant (p-value=.01).

**Table 131 Net Income Earned during Last Growing Season (GEL)**

|            | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|------------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Net income | 1,365            | 1,382                 | 865                | 1,251           | 889     | 1,062 |

*Full-time equivalent employees:* Respondents hired on average GEL 0.12 FTEs during the last growing season, including 0.12 among treatment respondents and 0.13 among control respondents. The difference is not statistically significant.

**Table 132 Full-Time Equivalent Employees**

|      | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| FTEs | 0.18             | 0.08                  | 0.00               | 0.12            | 0.13    | 0.12  |

*Summary:* Control respondents are more likely than treatment respondents to produce stone fruits and hazelnuts. At the same time, respondents in both groups have over 10 years experience producing the

stone fruits and produce them on less than one hectare of land on average. Treatment respondents both own and harvest a significantly larger number of trees and produce more kgs of fruit overall, although they are also on average as productive as control respondents in terms of kgs produced per tree. Treatment respondents sell significantly more, both in terms of kgs and lari value (GEL 1,705 vs. GEL 932), and also earn significantly more after expenses by GEL 1,251 to GEL 889. Control respondents consume nearly one-third of the harvest compared to only 5% among treatment respondents, while wastage among both groups is small at less than 7%. Finally, neither group employs many people to produce stone fruits with the number of FTEs hired equal to only 0.12 on average.

## 7.6 Beekeeping

*Number of beekeepers:* To study beekeeping and honey production, survey respondents were asked to answer to a set of questions about the history, levels and practices of honey production. Overall, 91 (8.1%) of respondents, treatment and control respondents combined, are involved in beekeeping, including 21 production grantees (15.8%), 32 agricultural trainees (11.7%), 24 livelihood package recipients (16.3%), and 14 control respondents (2.4%). There is a statistically significant difference between treatment and control responses, however, where only 2.4% of control respondents are involved in beekeeping compared to 15.8% of production grantees ( $p=.00$ ), 11.7% of agricultural trainees ( $p=.00$ ), and training and 16.3% of livelihood package recipients ( $p=.00$ ).

**Table 1331 Whether Produced Honey during Last Production Cycle**

|            | Production Grant |      | Agricultural Training |      | Livelihood Package |      | Control |     | Total |     |
|------------|------------------|------|-----------------------|------|--------------------|------|---------|-----|-------|-----|
|            | N                | %    | N                     | %    | N                  | %    | N       | %   | N     | %   |
| Bulk honey | 21               | 15.8 | 32                    | 11.7 | 24                 | 16.3 | 14      | 2.4 | 91    | 8.1 |

*Number of years involved in beekeeping:* On average, production grantees have been in beekeeping for 10.1 years followed by control respondents at 8.8 years, agricultural trainees at 6.9 years, and livelihood package recipients at 4.7 years. The differences between treatment and control respondents are not statistically significant.

**Table 134 Number of Years in Beekeeping**

|       | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|-------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Years | 10.1             | 6.9                   | 4.7                | 7.1             | 8.8     | 7.3   |

*Number of honeybee colonies:* On average, production grantees have 31.1 colonies followed by control respondents with 15.8, livelihood package recipients with 10.7, and agricultural trainees with 9.9. The differences between treatment and control respondents are not statistically significant.

**Table 1353 Number of Honeybee Colonies**

|       | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|-------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Years | 31.1             | 9.9                   | 10.7               | 16.4            | 15.8    | 16.3  |

*Number of beehives:* On average, production grantees have 31.1 beehives followed by control respondents with 15.9 hives, livelihood package recipients with 10.4 hives, and agricultural trainees with 9.9 hives. The differences between treatment and control respondents are not statistically significant.

**Table 1364 Number of Beehives**

|       | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|-------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Years | 31.1             | 9.9                   | 10.4               | 19.1            | 15.9    | 17.5  |

*Kgs of bulk honey produced and sold:* Of those who produced bulk honey during the most recent production season, production grantees produced the most at 303 kgs followed by livelihood package recipients at 71 kgs, control respondents at 70 kgs, and agricultural trainees at 63 kgs. The difference between production grantees and control respondents is statistically significant (p-value=.07).

At the time of the survey, a number of beekeepers had yet to sell the honey they had produced during the last production cycle, so that the results reported in the following table represent only those beekeepers that sold their last batch of honey. (The number of persons responding to each question is shown in parentheses.) Among these, production grantees sold the most on average at 224 kgs, representing 74% of honey produced, livelihood package recipients sold 33 kgs, representing 82% of honey produced, agricultural trainees sold 49 kgs, representing 94% of honey produce, and control

respondents sold 33 kgs, representing 47% of honey produced on average. The difference between production grantees and control respondents is statistically significant (p-value=.07).

**Table 1375 Bulk Honey Produced and Sold during Last Production Season (Kgs)**

|          | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control   | Total       |
|----------|------------------|-----------------------|--------------------|-----------------|-----------|-------------|
| Produced | 297<br>(19)      | 68<br>(26)            | 71<br>(21)         | 135<br>(66)     | 70<br>(9) | 127<br>(75) |
| Sold     | 240<br>(12)      | 49<br>(13)            | 58<br>(9)          | 115<br>(36)     | 33<br>(6) | 104<br>(41) |

*Sales of bulk honey:* Production grantees earned an average of GEL 2,626 per household from honey sales, followed by agricultural trainees at GEL 850, livelihood package recipients at GEL 685, and control respondents at GEL 554. Notably, although control households have produced more honey than agricultural trainees and almost as much as livelihood package recipients, they sold significantly less honey than these other respondents did. The difference between production grantees and control respondents is statistically significant (p-value=.06).

**Table 13856 Bulk Honey Sold during Last Production Season (GEL)**

|      | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Sold | 2,626            | 850                   | 685                | 1,457           | 554     | 1,351 |

*Honey consumed at home and gifted:* The survey also measured the consumption of bulk honey by respondent households. On average, households consumed 24% of honey produced, including 26% among treatment respondents and 17% among control respondents. At the same time, respondents gave away on average 14% of bulk honey produced as gifts, including 13% among treatment respondents and 21% among control respondents. The differences are statistically significant (.01).

**Table 139 Percentage of Honey Produced that is Consumed and Gifted**

|          | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Total Treatment (%) | Control (%) | Total (%) |
|----------|----------------------|---------------------------|------------------------|---------------------|-------------|-----------|
| Consumed | 22                   | 32                        | 20                     | 26                  | 17          | 24        |
| Gifted   | 9                    | 16                        | 14                     | 13                  | 21          | 14        |

*Net income:* Respondents earned on average GEL 1,031 from honey production during the last production season, including GEL 1,126 among treatment respondents and GEL 348 among control respondents. The difference is statistically significant (p-value=.01). Production grantees earned by far the most from honey production at GEL 2,387.

**Table 14058 Net Income Earned during Last Production Season (GEL)**

|            | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|------------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Net income | 2,387            | 433                   | 568                | 1,126           | 348     | 1,031 |

*Full-time equivalent employees:* Respondents in both groups hired on average zero FTEs in honey production during the last production season.

**Table 14159 Full-Time Equivalent Employees**

|      | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| FTEs | 0                | 0                     | 0                  | 0               | 0       | 0     |

*Summary:* The survey included 77 beekeepers among treatment respondents but only 14 beekeepers among control respondents. Of these, control respondents were moderately more experienced at beekeeping than treatment respondents, although both had approximately the same number of colonies (16.3) and hives (17.5). Beyond this, treatment respondents outperformed control respondents in nearly all measures of production, sales, and income by significant margins that include total lari sales of GEL 1,457 compared to GEL 554 and net income of GEL 1,126 compared to GEL 348. Both groups consumed and gifted around 40% of total honey produced, while both groups hired on average zero FTEs to work on beekeeping/honey production.

## 7.7 Poultry

*Number producing poultry:* Seventeen treatment respondents either have received or are about to receive livelihood package assistance from NEO in poultry raising. In contrast, almost one-fifth, or 114, of all control households raise poultry, albeit for household consumption mainly. At the time of the baseline, only one treatment respondent and two control respondents had sold poultry in the last 12 months.

**Table 1420 Whether Produced Honey during Last Production Cycle**

|       | Production Grant |     | Agricultural Training |     | Livelihood Package |      | Control |      | Total |      |
|-------|------------------|-----|-----------------------|-----|--------------------|------|---------|------|-------|------|
|       | N                | %   | N                     | %   | N                  | %    | N       | %    | N     | %    |
| Honey | 1                | 0.8 | 0                     | 0.0 | 16                 | 10.9 | 114     | 19.9 | 131   | 11.6 |

*Number of poultry owned:* Production grantees and agricultural trainees have on average 160 and 100 poultry, both of which are significantly greater than the 13.5 poultry owned on average by the control respondents.

**Table 1431 Number of Poultry Owned**

|                | Production Grant | Agricultural Training | Livelihood Package | Control | Total |
|----------------|------------------|-----------------------|--------------------|---------|-------|
| Number poultry | 160              | 0                     | 100                | 13.5    | 25.3  |

*Poultry purchases and deaths:* Only livelihood package recipients have purchased a relatively sizeable amount of poultry (25 units) over the last 12 months followed by control households who purchased on average 6.8 birds. This means in turn that livelihood package recipients increased their stock of poultry by 21.6 birds over the last 12 months in contrast to control respondents who saw their stock fall by a net of 3.2 birds over the same period.

**Table 1442 Poultry Purchased over Last 12 Months**

|              | Production Grant | Agricultural Training | Livelihood Package | Control | Total |
|--------------|------------------|-----------------------|--------------------|---------|-------|
| Purchased    | 0                | N/A                   | 25.0               | 6.8     | 9.0   |
| Died         | 0                | N/A                   | 3.4                | 11.0    | 10.1  |
| Net increase | 0                | N/A                   | 21.6               | -3.2    | -1.1  |

*Percentage of poultry consumed and gifted:* Control respondents consumed 40.6% and gifted 10.6% of their poultry stock compared to only 10.6% and 0.4%, respectively, of treatment respondents.

**Table 1453 Percentage of Poultry that is Consumed and Gifted**

|          | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Control (%) | Total (%) |
|----------|----------------------|---------------------------|------------------------|-------------|-----------|
| Consumed | 3.0                  | N/A                       | 10.6                   | 40.6        | 36.6      |
| Gifted   | 0.0                  | N/A                       | 0.4                    | 10.1        | 8.2       |

*Summary:* At this stage in NEO operations, the survey team was not able to find many poultry producers and even fewer who had sold poultry and earned money from the activity. With that said, the results suggest that treatment respondents tend to take a more commercial view of poultry raising given that they raise on average substantially more birds (100+ vs. 13.5); have increased their stock on average, (while control respondents have seen their stock fall), and consume or gift a substantially smaller percentage of their stock (11% vs. 50%).

## **7.8 Adoption of New Technologies and Practices**

*Technologies and practices adopted:* The survey asked respondents whether they had adopted a number of production technologies and practices during the most recent growing season. As can be seen below, production grantees have adopted each of the technologies and practices at a significantly higher rate than the other three study groups followed at some distance by agricultural trainees. Few livelihood package recipients have adopted the technologies/practices, and almost no control respondents have. These results are possibly reflect the assistance that NEO has already provided to its target beneficiaries prior to the baseline survey, but almost certainly also reflects the fact that production grantees tend to be larger and more commercially oriented than the other three study groups and thus more likely all else equal to have adopted the listed technologies and practices.

**Table 1464 Technologies and Practices Adopted**

|                                                             | Production grant<br>(N/%) | Ag. Training<br>(N/%) | Livelihood<br>Package<br>(N/%) | Control<br>(N/%) | Total<br>(N/%) |
|-------------------------------------------------------------|---------------------------|-----------------------|--------------------------------|------------------|----------------|
| <b>Mechanical and Physical</b>                              |                           |                       |                                |                  |                |
| New or improved land preparation practices                  | 39 (29.3%)                | 24 (8.8)              | 3 (2%)                         | 1 (0.2%)         | 67 (5.9%)      |
| New or improved production practices                        | 42 (31.6%)                | 24 (8.8)              | 4 (2.7%)                       | 1 (0.2%)         | 71 (6.3%)      |
| New or improved post-harvest handling practices             | 9 (6.8%)                  | 4 (1.5%)              | 0 (0.0%)                       | 0 (0.0%)         | 13 (1.2%)      |
| New or improved processing practices                        | 6 (4.5%)                  | 3 (1.1%)              | 0 (0.0%)                       | 0 (0.0%)         | 9 (0.8%)       |
| New or improved energy technologies                         | 8 (6.0%)                  | 6 (2.2%)              | 0 (0.0%)                       | 0 (0.0%)         | 14 (1.2%)      |
| <b>Biological</b>                                           |                           |                       |                                |                  |                |
| New or improved livestock breeds                            | 0 (0.0%)                  | 0 (0.0%)              | 0 (0.0%)                       | 0 (0.0%)         | 0 (0.0%)       |
| New or improved livestock health practices (beekeeping)     | 4 (3.0%)                  | 2 (0.7%)              | 1 (0.7%)                       | 0 (0.0%)         | 7 (0.6%)       |
| New or improved plant varieties                             | 12 (9.0%)                 | 7 (2.6%)              | 1 (0.7%)                       | 0 (0.0%)         | 20 (1.8%)      |
| New or improved soil management practices                   | 20 (15.0%)                | 5 (1.8%)              | 1 (0.7%)                       | 0 (0.0%)         | 26 (2.3%)      |
| <b>Chemical</b>                                             |                           |                       |                                |                  |                |
| Sustainable fertilizer, pesticide, or insecticide practices | 38 (28.6%)                | 22 (8%)               | 4 (2.7%)                       | 0 (0.0%)         | 64 (5.7%)      |
| Soil or water testing                                       | 23 (17.3%)                | 6 (2.2%)              | 0 (0.0%)                       | 0 (0.0%)         | 29 (2.6%)      |
| pH balancing applications (lime, nitrates, etc.)            | 22 (16.5%)                | 4 (1.5%)              | 0 (0.0%)                       | 0 (0.0%)         | 26 (2.3%)      |
| Fertilities                                                 | 20 (15.0%)                | 8 (2.9%)              | 1 (0.7%)                       | 0 (0.0%)         | 29 (2.6%)      |
| <b>Management and Cultural Practices</b>                    |                           |                       |                                |                  |                |
| Sustainable water management practices                      | 22 (16.5%)                | 3 (1.1%)              | 2 (1.4%)                       | 0 (0.0%)         | 27 (2.4)       |
| Sustainable land management practices                       | 10 (7.5%)                 | 5 (1.8%)              | 2 (1.4%)                       | 0 (0.0%)         | 17 (1.5%)      |
| <b>New or improved information technologies</b>             |                           |                       |                                |                  |                |
| Increased use of climate information technologies           | 1 (0.8%)                  | 4 (1.5%)              | 1 (0.7%)                       | 0 (0.0%)         | 6 (0.5%)       |

*Land area covered by technologies and practices:* The following table shows the area in hectares covered by the relevant technologies and practices. Perhaps surprisingly, in several cases, the land area covered by a practice or technology among agricultural trainees exceeds that of production grantees. In almost all cases, the land area covered by a practice or technology among livelihood package recipients lags behind that of the production grantees and agricultural trainees.

**Table 1475 Area Covered by Technologies and Practices (Hectares)**

|                                                             | Production Grant | Agricultural Training | Livelihood Package | Control | Total |
|-------------------------------------------------------------|------------------|-----------------------|--------------------|---------|-------|
| <b>Mechanical and Physical</b>                              |                  |                       |                    |         |       |
| New or improved land preparation practices                  | 0.96             | 1.05                  | 0.62               | 0.35    | 0.96  |
| New or improved production practices                        | 0.86             | 0.62                  | 0.61               | 0.01    | 0.74  |
| New or improved post-harvest handling practices             | 0.66             | 0.25                  | -                  | 0.00    | 0.50  |
| New or improved processing practices                        | 0.31             | 0.23                  | -                  | -       | 0.25  |
| New or improved energy technologies                         | 0.34             | 0.39                  | -                  | -       | 0.32  |
| <b>Biological</b>                                           |                  |                       |                    |         |       |
| New or improved livestock breeds                            | -                | -                     | -                  | -       | 0.00  |
| New or improved livestock health practices                  | -                | -                     | -                  | -       | N/A   |
| New or improved plant varieties                             | 0.60             | 0.47                  | 0.45               | -       | 0.50  |
| New or improved soil management practices                   | 0.91             | 0.38                  | 0.45               | -       | 0.74  |
| <b>Chemical</b>                                             |                  |                       |                    |         |       |
| Sustainable fertilizer, pesticide, or insecticide practices | 0.93             | 1.11                  | 0.61               | -       | 0.94  |
| Soil or water testing                                       | 0.61             | 1.84                  | -                  | -       | 0.86  |
| pH balancing applications (lime, nitrates, etc)             | 0.73             | 2.66                  | -                  | -       | 1.01  |
| Fertilities                                                 | 0.72             | 1.52                  | 0.40               | -       | 0.90  |
| <b>Management and Cultural Practices</b>                    |                  |                       |                    |         |       |
| Sustainable water management practices                      | 0.46             | 0.20                  | 0.00               | -       | 0.39  |
| Sustainable land management practices                       | 0.81             | 2.15                  | 0.60               | -       | 1.24  |
| <b>New or improved information technologies</b>             |                  |                       |                    |         |       |
| Increased use of climate information technologies           | 0.00             | 10.00                 | 0.60               | -       | 2.65  |

*Effectiveness of technologies and practices:* The survey asked those who had adopted a practice or technology to rate its effectiveness on a 5-point scale where 1 means ‘not at all effective’ and 5 means ‘very effective.’ As seen below, respondents universally rate the practice or technology somewhere between effective and very effective.

**Table 14866 Effectiveness of Technologies and Practices**

|                                                             | Production Grant | Agricultural Training | Livelihood Package | Control | Total |
|-------------------------------------------------------------|------------------|-----------------------|--------------------|---------|-------|
| <b>Mechanical and Physical</b>                              |                  |                       |                    |         |       |
| New or improved land preparation practices                  | 4.6              | 4.6                   | 4.3                | 4.0     | 4.6   |
| New or improved production practices                        | 4.3              | 4.3                   | 4.6                | 4.0     | 4.3   |
| New or improved post-harvest handling practices             | 4.2              | 4.5                   | -                  | -       | 4.3   |
| New or improved processing practices                        | 4.6              | 4.5                   | -                  | -       | 4.6   |
| New or improved energy technologies                         | 4.1              | 4.8                   | -                  | -       | 4.1   |
| <b>Biological</b>                                           |                  |                       |                    |         |       |
| New or improved livestock breeds                            | -                | -                     | -                  | -       | -     |
| New or improved livestock health practices (beekeeping)     | 4.8              | 4.0                   | 4.0                | -       | 4.6   |
| New or improved plant varieties                             | 4.8              | 4.4                   | 4.0                | -       | 4.4   |
| New or improved soil management practices                   | 4.1              | 4.6                   | 4.0                | -       | 4.1   |
| <b>Chemical</b>                                             |                  |                       |                    |         |       |
| Sustainable fertilizer, pesticide, or insecticide practices | 4.7              | 4.9                   | 4.3                | -       | 4.6   |
| Soil or water testing                                       | 4.5              | 4.3                   | -                  | -       | 4.4   |
| pH balancing applications (lime, nitrates, etc)             | 4.2              | 4.3                   | -                  | -       | 4.2   |
| Fertilities                                                 | 4.6              | 4.3                   | 4.0                | -       | 4.5   |
| <b>Management and Cultural Practices</b>                    |                  |                       |                    |         |       |
| Sustainable water management practices                      | 4.5              | 5.0                   | 4.0                | -       | 4.5   |
| Sustainable land management practices                       | 4.9              | 4.6                   | 4.0                | -       | 4.7   |
| <b>New or improved information technologies</b>             |                  |                       |                    |         |       |
| Increased use of climate information technologies           | 4.0              | 4.0                   | 4.0                | -       | 4.0   |

*Plans to use technologies and practices:* Overall, the number of respondents planning to use the practices or technologies in the next production season exceeds by moderate amounts those who implemented the practices or technologies during the last production season. The exception to this general trend is production grantees. In several cases, the same number or a slightly lower number of respondents intend to adopt the practice or technology in the coming production season. It should also be noted that, in most cases, the percentage of respondents planning to adopt the practice or technology in the coming production season is small, never exceeding 10% of respondents for agricultural trainees and livelihood package recipients.

**Table 14967 Whether Will Use Practice or Technology during Next Production Season**

|                                                             | Production Grant<br>N (%) | Agricultural Training<br>N (%) | Livelihood Package<br>N (%) | Control<br>N (%) | Total<br>N (%) |
|-------------------------------------------------------------|---------------------------|--------------------------------|-----------------------------|------------------|----------------|
| <b>Mechanical and Physical</b>                              |                           |                                |                             |                  |                |
| New or improved land preparation practices                  | 39 (29.3%)                | 27 (9.9%)                      | 7 (4.8%)                    | 2 (0.3%)         | 75 (6.6%)      |
| New or improved production practices                        | 42 (31.6%)                | 27 (9.9%)                      | 8 (5.4%)                    | 3 (0.5%)         | 80 (7.1%)      |
| New or improved post-harvest handling practices             | 9 (6.8%)                  | 7 (2.6%)                       | 4 (2.7%)                    | 1 (0.2%)         | 22 (2.0%)      |
| New or improved processing practices                        | 5 (3.8%)                  | 5 (1.8%)                       | 4 (2.7%)                    | 1 (0.2%)         | 15 (1.3%)      |
| New or improved energy technologies                         | 8 (6%)                    | 9 (3.3%)                       | 1 (2.7%)                    | 2 (0.3%)         | 23 (2%)        |
| <b>Biological</b>                                           |                           |                                |                             |                  |                |
| New or improved livestock breeds                            | -                         | -                              | -                           | -                | -              |
| New or improved livestock health practices                  | 4 (3%)                    | 5 (1.8%)                       | 5 (3.4%)                    | 1 (0.2%)         | 15 (1.3%)      |
| New or improved plant varieties                             | 12 (9%)                   | 10 (3.6%)                      | 5 (3.4%)                    | 2 (0.3%)         | 29 (2.6%)      |
| New or improved soil management practices                   | 20 (15%)                  | 8 (2.9%)                       | 5 (3.4%)                    | 2 (0.3%)         | 35 (3.1%)      |
| <b>Chemical</b>                                             |                           |                                |                             |                  |                |
| Sustainable fertilizer, pesticide, or insecticide practices | 39 (29.3%)                | 25 (9.1%)                      | 7 (4.8%)                    | 2 (0.3%)         | 73 (6.5%)      |
| Soil or water testing                                       | 22 (16.5%)                | 9 (3.3%)                       | 4 (2.7%)                    | 4 (0.7%)         | 39 (3.5%)      |
| pH balancing applications (lime, nitrates, etc.)            | 22 (16.5%)                | 7 (2.6%)                       | 4 (2.7%)                    | 4 (0.7%)         | 37 (3.3%)      |
| Fertilities                                                 | 20 (15%)                  | 11 (4%)                        | 5 (3.4%)                    | 4 (0.7%)         | 40 (3.5%)      |
| <b>Management and Cultural Practices</b>                    |                           |                                |                             |                  |                |
| Sustainable water management practices                      | 22 (16.5%)                | 5 (1.8%)                       | 5 (3.4%)                    | 4 (0.7%)         | 36 (3.2%)      |
| Sustainable land management practices                       | 9 (6.8%)                  | 8 (2.9%)                       | 5 (3.4%)                    | 4 (0.7%)         | 26 (2.3%)      |
| <b>New or improved information technologies</b>             |                           |                                |                             |                  |                |
| Increased use of climate information technologies           | 1 (0.8%)                  | 6 (2.2%)                       | 5 (3.4%)                    | 5 (0.9%)         | 17 (1.5%)      |

*Summary:* Virtually none of the control respondents had adopted the technologies or practices covered by the survey, while among the treatment groups the adoption rate varied widely with significantly higher adoption rates among production grantees followed at a distance by agricultural trainees and at an even greater distance by livelihood package recipients. The widely varying rates of adoption probably reflect the fact the production grantees tend to be the largest and most ‘sophisticated’ producers within the treatment group, while the livelihood package recipients tend to be the smallest and least sophisticated. The disparity in adoption rates among treatment and control groups is probably

also a function of relative size and sophistication and the fact the NEO has already begun work among its target farmers on adoption of many of the covered technologies and practices.

## 7.9 Extension Services

The survey asked a series of questions about receipt of extension services. The main finding here is that no control respondents reported having received extension services during the last 12 months. Among the treatment group, anywhere from 91%-99% of extension services received were provided by NEO or NEO implementing partners. For these reasons, there appears to be little value to be gained by reporting the baseline results for extension services.

## 7.10 Enterprise Production

*Types of Enterprises:* In addition to its support for agricultural activities, NEO is supporting various individuals and households to start and/or operate microenterprises. This support is primarily focused on livelihood package recipients, as is seen in the table below where 26 of treatment survey respondents receiving support in microenterprise development are drawn from the livelihood package recipients compared to only five production grantees and one agricultural trainee. Among the control respondents, six were also operating microenterprises. Overall, the microenterprises being run by survey respondents are diverse with the largest number being in carpentry/ woodworking (11) followed by retail shop/sales (7), guesthouses (5), and tailoring (4).

**Table 15068 Types of Enterprises**

|                            | Production Grant (N) | Agricultural Training (N) | Livelihood Package (N) | Control (N) | Total (N) |
|----------------------------|----------------------|---------------------------|------------------------|-------------|-----------|
| Tailoring                  | 0                    | 1                         | 2                      | 1           | 4         |
| Hairdressing               | 0                    | 0                         | 3                      | 0           | 3         |
| Carpentry/ woodworking     | 0                    | 0                         | 11                     | 2           | 13        |
| Stone & ceramic processing | 0                    | 0                         | 0                      | 1           | 1         |
| Retail shop/ sales         | 2                    | 0                         | 4                      | 1           | 7         |
| Guesthouse                 | 1                    | 0                         | 4                      | 0           | 5         |
| Bakery & confection        | 0                    | 0                         | 1                      | 0           | 1         |
| Cafe                       | 2                    | 0                         | 0                      | 0           | 2         |

|                                       |   |   |    |   |    |
|---------------------------------------|---|---|----|---|----|
| Welding                               | 0 | 0 | 0  | 1 | 1  |
| Event hall (funerals, weddings, etc.) | 0 | 0 | 1  | 0 | 1  |
| Total                                 | 5 | 1 | 26 | 6 | 38 |

*Years of operation:* Production grantees have operated their microenterprise on average for 4.3 years compared to 7.0 for agricultural trainees and 8.8 years for control respondents. In contrast, livelihood package recipients appear mostly to have only just recently begun operating their business.

**Table 169 151Years of Operation**

|       | Production Grant | Agricultural Training | Livelihood Package | Control | Total |
|-------|------------------|-----------------------|--------------------|---------|-------|
| Years | 4.3              | 7.0                   | 0.0                | 8.8     | 7.5   |

*Location of enterprise:* The large majority of microenterprises operated by livelihood package recipients are located inside the main residence with just under half again of this number operated at home but outside the main residence. Production grantees and control respondents are more likely to locate the enterprise away from the home at a variety of other locations.

**Table 1520 Where is this enterprise operated?**

|                            | Production Grant (N) | Agricultural Training (N) | Livelihood Package (N) | Control (N) | Total (N) |
|----------------------------|----------------------|---------------------------|------------------------|-------------|-----------|
| Home Inside the residence  | 0                    | 1                         | 15                     | 3           | 19        |
| Home outside the residence | 0                    | 0                         | 7                      | 1           | 7         |
| Industrial site            | 0                    | 0                         | 0                      | 0           | 0         |
| Traditional market         | 0                    | 0                         | 0                      | 1           | 1         |
| Commercial district shop   | 0                    | 0                         | 1                      | 1           | 2         |
| Roadside                   | 3                    | 0                         | 0                      | 2           | 5         |
| Other fixed place          | 1                    | 0                         | 0                      | 1           | 1         |
| Mobile service             | 0                    | 0                         | 0                      | 1           | 5         |

*Sources of financing:* Livelihood package recipients relied overwhelmingly on their own savings to finance their microenterprise with NGOs being a distance second source of financing. Respondents from

the remaining study groups tended to use a variety of sources to get financing with no source being dominant.

**Table 1531 Source of Financing to Start Enterprise**

|                              | Production Grant (N) | Agricultural Training (N) | Livelihood Package (N) | Control (N) | Total (N) |
|------------------------------|----------------------|---------------------------|------------------------|-------------|-----------|
| Own Savings                  | 1                    | 0                         | 13                     | 3           | 17        |
| Friends/family               | 0                    | 0                         | 0                      | 1           | 1         |
| Commercial/ Development bank | 2                    | 0                         | 1                      | 3           | 6         |
| Local group                  | 0                    | 0                         | 0                      | 0           | 0         |
| NGO                          | 2                    | 1                         | 5                      | 0           | 8         |
| Grant                        | 0                    | 0                         | 1                      | 0           | 1         |

*Months of operation:* Livelihood package recipients and control respondents tend to operate their microenterprises for several months during the year typically ranging from five to 12 months. The few production grantees and agricultural trainees in the sample tend to operate their businesses for around six months or less.

**Table 15472 Months of Operation**

|                            | Production Grant N | Agricultural Training N | Livelihood Package N | Control N | Total N |
|----------------------------|--------------------|-------------------------|----------------------|-----------|---------|
| Tailoring                  | -                  | 2                       | 12                   | 12        | 9.5     |
| Hairdressing               | -                  | -                       | 6.3                  | -         | 6.3     |
| Carpentry/ woodworking     | -                  | -                       | 7.4                  | 9.5       | 7.8     |
| Stone & ceramic processing | -                  | -                       | -                    | 1         | 1       |
| Retail shop/ sales         | 6                  | -                       | 9.5                  | 9.8       | 9       |
| Guesthouse                 | 6                  | -                       | 5                    | -         | 5.2     |
| Bakery & confection        | -                  | -                       | 10                   | -         | 10      |
| Cafe                       | 6.5                | -                       | -                    | -         | 6.5     |
| Welding                    | -                  | -                       | -                    | 12        | 12      |
| Event hall                 | -                  | -                       | 5                    | -         | 5       |

*Monthly gross revenues:* Respondents had on average GEL 905 in monthly gross revenues, including GEL 780 among treatment respondents and GEL 1,350 among control respondents. The difference is not statistically significant.

**Table 1553 Monthly Gross Revenues**

|                  | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|------------------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Monthly revenues | 1,851            | 350                   | 606                | 780             | 1,350   | 905   |

*Net income:* Respondents earned on average GEL 453 from their microenterprise activity, including GEL 363 among treatment respondents and GEL 805 among control respondents. The difference is not statistically significant.

**Table 1564 Net Income**

|            | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|------------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| Net income | 1,482            | 110                   | 149                | 363             | 805     | 453   |

*Full-time equivalent employees:* Respondents hired on average 0.26 FTEs, including 0.30 FTEs among treatment respondents and 0.10 FTEs among control respondents. The difference is not statistically significant.

**Table 1575 Full-Time Equivalent Employees**

|      | Production Grant | Agricultural Training | Livelihood Package | Total Treatment | Control | Total |
|------|------------------|-----------------------|--------------------|-----------------|---------|-------|
| FTEs | 1.25             | 0.0                   | 0.13               | 0.30            | 0.10    | 0.26  |

*Summary:* Respondents operating microenterprises are concentrated among livelihood package recipients with 26 respondents concentrated in carpentry, retail sales, guesthouse operation, and tailoring, compared to only six control respondents who are operating microenterprises. Livelihood package recipients appear for the most part to be operating start-ups funded by own savings or with NGO assistance operated either within or outside the main residence compared to 8.8 years of production on average among control respondents operated in a wide variety of locations and financed through a wide variety of sources. Both groups operate their businesses somewhere between 5-12

months during the year. Livelihood package recipients report gross revenues of GEL 780 per month and net income of GEL 363 compared to GEL 1,350 and GEL 805, respectively, among control respondents. Neither group hires many FTEs to help run their businesses averaging only between .10 and .13 FTEs.

## 7.11 Business Development Services

The survey asked a series of questions about receipt of business development services (BDS) by microenterprise operators. The main finding here is that no control respondents reported having received BDS during the last 12 months. Among the treatment group nearly all business development services received were provided by NEO or NEO implementing partners. For these reasons, there appears to be little value to be gained by reporting the baseline results for BDS.

## 7.12 Access to Credit

*Tried to get credit:* Based on the Importance of the access to credit for agricultural and enterprise development, the survey asked about the respondents' borrowing experiences. Overall, 31.3% of all respondents have tried to obtain a loan over the last 12 months, including 35.3% of production grantees, 30.4% of agricultural trainees, 38.1% of livelihood package recipients, and 28.6% of control respondents. Of those who did obtain loans, the large majority obtained a single loan, few obtained two loans, and even fewer obtained more than two loans. This is true across all four of the study groups. The number of loans received averaged 1.3 across the four study groups ranging from a low of 1.2 and a high of 1.4. The differences between treatment and control respondents are not statistically significant.

Over 90% of all loan applicants in each study group successfully received a loan, and the differences between the groups were not statistically significant. Of those few who were turned down for the loan, most cited either the lack of credit history or problems with a previous loan as reasons for the rejection.

**Table 15876 Whether Tried to Obtain Loan in Last 12 Months**

|                      | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Control (%) | Total (%) |
|----------------------|----------------------|---------------------------|------------------------|-------------|-----------|
| Tried to obtain loan | 35.3                 | 30.4                      | 38.1                   | 28.6        | 31.3      |
| <i>P-value</i>       | 0.14                 | 0.43                      | 0.02                   | N/A         | N/A       |
| Number of loans      |                      |                           |                        |             |           |

|                |      |      |      |      |      |
|----------------|------|------|------|------|------|
| 1              | 30.8 | 25.2 | 33.3 | 24.2 | 26.4 |
| 2              | 2.3  | 2.2  | 3.4  | 3.3  | 2.9  |
| 3              | 1.5  | 2.9  | 0.7  | 0.5  | 1.2  |
| 4              | 0.0  | 0.7  | 0.0  | 0.5  | 0.4  |
| Average loans  | 1.2  | 1.4  | 1.2  | 1.2  | 1.3  |
| <i>P-value</i> | 0.78 | 0.66 | 0.90 | N/A  | N/A  |

*Reasons for not trying to get a loan:* Among those respondents who never tried to obtain a loan, 46.2% were afraid they wouldn't be able to pay the loan back, 37.7% didn't want to have debt, and 17.4% said interest rates were too high. There are statistically significant differences between treatment and control respondents. Significantly fewer control respondents than treatment respondents cited high interest rates or an inability to pay and significantly more cited complex application procedures as reasons for not seeking a loan.

**Table 15977 Reasons for Not Trying to Obtain A Loan**

|                                      | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Control (%) | Total (%) |
|--------------------------------------|----------------------|---------------------------|------------------------|-------------|-----------|
| Don't know how to apply              | 0.0                  | 0.0                       | 0.0                    | 0.2         | 0.1       |
| Lenders are not located close by     | 2.3                  | 0.0                       | 0.0                    | 17.8        | 0.3       |
| Interest rates are too high          | 14.0                 | 19.5                      | 14.3                   | 4.6         | 17.4      |
| Collateral requirements are too high | 2.3                  | 2.1                       | 5.5                    | 7.3         | 3.9       |
| Don't meet the requirements          | 3.5                  | 7.4                       | 3.3                    | 0.7         | 6.4       |
| Application procedures too complex   | 31.4                 | 0.5                       | 1.1                    | 50.2        | 0.6       |
| Afraid that won't be able to repay   | 57.0                 | 38.9                      | 57.1                   | 32.2        | 46.2      |
| Don't want to have debt              | 1.2                  | 43.2                      | 33.0                   | 0.5         | 37.7      |
| Had problem with previous credit     | 2.3                  | 0.5                       | 0.0                    | 0.2         | 0.5       |

*Lending sources:* Of respondents who applied for a loan, about three-quarters applied to commercial / development banks and about one-fifth applied to microfinance institutions. Treatment and control respondents are largely similar in terms of where they seek loans, with the exception of production grantees who have applied to commercial / development banks at a higher rate than other study groups and to microfinance institutions at a lower rate than other study groups.

**Table 16078 Lending Sources**

|                              | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Control (%) | Total (%) |
|------------------------------|----------------------|---------------------------|------------------------|-------------|-----------|
| Commercial/ development bank | 87.5                 | 69.8                      | 75.0                   | 78.8        | 77.1      |
| Microfinance institution     | 12.5                 | 28.3                      | 21.7                   | 20.6        | 21.7      |
| Local shop/supplier          | 0.0                  | 0.0                       | 0.0                    | 0.0         | 0.0       |
| Buyer                        | 0.0                  | 0.9                       | 0.0                    | 0.0         | 0.3       |
| Family member or friend      | 0.0                  | 0.0                       | 0.0                    | 0.0         | 0.0       |
| Moneylender                  | 0.0                  | 0.9                       | 1.7                    | 0.5         | 0.7       |
| Other                        | 0.0                  | 0.0                       | 1.7                    | 0.0         | 0.2       |

*Loan terms:* The average loan size varied widely from group to group. Production grantees and agricultural trainees received the largest loans at GEL 19,027 and GEL 5,496 respectively, both significantly larger than control respondents and livelihood package recipients who had an average loan size of GEL 2,867 and GEL 2,101, respectively. Nearly 90% of all loans taken require monthly payments and the difference across groups is not statistically significant.

The average length of the loans is 18.4 months, with an average of 20.4% interest rate. There are no statistically significant differences between treatment and control respondents in terms of loan length and interest rates, with the exception of livelihood package recipients, who reported receiving loans with an average interest rate of 12.4%, which is almost twice as low as any group.

**Table 161 Loan Terms**

|                 | Production Grant | Agricultural Training | Livelihood Package | Control | Total |
|-----------------|------------------|-----------------------|--------------------|---------|-------|
| Loan size (GEL) | 19,027           | 5,495                 | 2,101              | 2,867   | 5,662 |
| <i>P-value</i>  | 0.00             | 0.03                  | 0.23               | N/A     | N/A   |
| Months          | 22.9             | 18.3                  | 15.1               | 18.2    | 18.4  |
| <i>P-value</i>  | 0.04             | 0.97                  | 0.59               | N/A     | N/A   |
| Interest rate   | 22.1             | 20.6                  | 12.4               | 21.1    | 20.4  |
| <i>P-value</i>  | 0.97             | 0.40                  | 0.10               | N/A     | N/A   |

*Purpose of loan:* Survey respondents who received a loan used those loans for a wide variety of purposes. The most common purposes were to purchase consumer goods (19.8%), constructing or rehabilitating a home (15.1%), purchasing production inputs (14.3%), medical services (12.6%), and general business purposes (12.1%). If we combine all business purposes, then 36.8% of all loan proceeds went to support the borrower’s business. Statistically significant differences between the treatment and control groups include the following. Production grantees invested more in machinery and equipment than control respondents, while control respondents spent more of their loan proceeds on medical expenses than treatment respondents.

**Table 1620 Purpose of Loan**

|                                               | Production Grant (%) | Agricultural Training (%) | Livelihood Package (%) | Control (%) | Total (%) |
|-----------------------------------------------|----------------------|---------------------------|------------------------|-------------|-----------|
| Purchase machinery & equipment                | 11.1                 | 7.4                       | 2.0                    | 4.8         | 6.0       |
| Purchase production inputs/ working capital   | 18.5                 | 9.6                       | 12.0                   | 16.3        | 14.3      |
| Purchase livestock                            | 0.0                  | 7.4                       | 4.0                    | 3.0         | 3.8       |
| Invest in new production method or technology | 1.9                  | 1.1                       | 2.0                    | 2.4         | 1.9       |
| Construct or rehabilitate work place          | 3.7                  | 1.1                       | 8.0                    | 1.2         | 2.5       |
| Construct or rehabilitate home                | 16.7                 | 18.1                      | 8.0                    | 15.1        | 15.1      |
| Purchase consumer goods                       | 18.5                 | 26.6                      | 26.0                   | 14.5        | 19.8      |
| Business                                      | 16.7                 | 16.0                      | 12.0                   | 8.4         | 12.1      |
| Medical services                              | 7.4                  | 4.3                       | 12.0                   | 19.3        | 12.6      |
| Education                                     | 0.0                  | 2.1                       | 6.0                    | 5.4         | 3.8       |
| Repay loans                                   | 1.9                  | 4.3                       | 2.0                    | 4.2         | 3.6       |
| Everyday family expenses                      | 3.7                  | 2.1                       | 6.0                    | 5.4         | 4.4       |

*Summary:* Around 30% of treatment and control respondents applied for a loan over the last 12 months and both were equally likely to get the loan, with an over 90% success rate in each case. Respondents in both groups applied most frequently to commercial/development banks and to a lesser extent to microfinance institutions, while treatment respondents tended to get larger loans over more months with no significant difference in the interest rate charged. Those who did not apply for a loan in each group cited the fear of not being able to repay the loan, the fact that they did not want/need a loan, and the high interest rates as the reasons for not applying. Members of both groups used their loans for a variety of non-business purposes, prominent among them to purchase consumer goods, construct or

rehabilitate their homes, or pay for medical services. Treatment respondents were more likely overall to use the loan for business purposes, although a similar percentage of control respondents also used their loans to purchase inputs or working capital. Overall, and depending on the treatment group, treatment respondents used from approximately 25%-50% of their loans for business purposes compared to around 30% for control respondents. Among treatment respondents, production grantees were more likely to use the loan for production purposes followed by agricultural trainees and livelihood package recipients.

## **8 QUALITATIVE FINDINGS**

Qualitative research for the Component 2 and 3 baseline evaluation included nine Focus Group Discussions (FGDs) and 12 Key Informant Interviews (KII). Mr. Beka Dzadzamia, our Local Expert, conducted all FGDs and KIIs during August 23 – September 11, 2013. The research geography included three of the four regions covered by the NEO project. Municipalities were identified and chosen in-line with quantitative research coverage, including both low-land and mountainous regions. A list of respondents, including location and contact details, is provided in Annex 6.

As activities for NEO project Component 2 (Rural Economic Development) and Component 3 (Assistance to Vulnerable Households and Individuals) were newly launched, close consultations with NEO staff were held in order to identify respondents benefitting from project activities. There were no livelihood package beneficiaries at the time of the qualitative research. Qualitative research did not cover tourism and craft activities under project Component 2. Written notes of the interviews are provided in Annex 7. Digital recordings of all FGDs and KIIs are on-file with Banyan Global.

**Table 181 Focus Group and Key Informant Interview Respondents by Typology**

| Stakeholder                                 | KIIs      | FGDs     | Location                                  | Respondents                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------|-----------|----------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NEO management                              | 2         |          | Tbilisi                                   | Chief of Party; Deputy Chief of Party                                                                                                                                                                                                                                                                                                                                                           |
| NEO staff                                   | 2         |          | Tbilisi                                   | KII were conducted with the Agriculture Development Adviser and Livelihood adviser.                                                                                                                                                                                                                                                                                                             |
| Informed village residents                  |           | 2        | Samegrelo, Mtskheta-Mtianeti              | Respondents were identified upon arrival. One FG was held in Samegrelo (Tsalidjikha) and a second in Mtskheta-Mtianeti (Sno village).                                                                                                                                                                                                                                                           |
| Local social/business leaders               | 2         |          | Samegrelo, Mtskheta-Mtianeti              | Respondents were identified on arrival. One KII was held in Samegrelo (Zugdidi) and a second in Mtskheta-Mtianeti (Sno).                                                                                                                                                                                                                                                                        |
| Demonstration farmers/producers             | 2         | 3        | Samegrelo, Shida Kartli, Mskheta-Mtianeti | KIIs were held in: <ul style="list-style-type: none"> <li>• Samegrelo, strawberry demo plots</li> <li>• Shida Kartli vegetable demo plots</li> </ul> FGs were held: <ul style="list-style-type: none"> <li>• Samegrelo hazelnut producer association demo plot</li> <li>• Shida Kartli fruit nursery</li> <li>• Mskheta- Mtianeti open field vegetable production demo plots-Dusheti</li> </ul> |
| Value chain actors                          | 2         | 2        | Samegrelo, Mtskheta-Mtianeti              | KII were held with: <ul style="list-style-type: none"> <li>• Eco Farm vegetable value chain actor (buyer)</li> <li>• Tsalenjikha green house vegetable producer farmer.</li> </ul> FG were held in: <ul style="list-style-type: none"> <li>• Mtskheta-Mtianeti, Kazbegi open field vegetable and potato seed producers</li> <li>• Samegrelo green house vegetable producers</li> </ul>          |
| Vocational/On-the-job training participants |           | 2        | Samegrelo                                 | One FG was held with vocational training participants in Zugdidi and one with on the job training participants in Tsalenjikha.                                                                                                                                                                                                                                                                  |
| Vocational/On-the-job training providers    | 2         |          | Shida Kartli, Samegrelo                   | KII were held in Tsalenjikha with the organization (future employer of training participants) organizing the training and Gantiadi College in Gori, a vocational training provider.                                                                                                                                                                                                             |
| <b>Total</b>                                | <b>12</b> | <b>9</b> |                                           |                                                                                                                                                                                                                                                                                                                                                                                                 |

Qualitative research findings are presented below. They have been organized to address the five evaluation questions relevant to NEO project Components 2 and 3.

## **8.1 Evaluation Question 1: NEO's Impact on Incomes, Jobs and Productivity**

- *What was the overall impact of NEO's rural economic development component on increasing incomes and creating jobs in targeted communities? To what degree did the component increase productivity and/or profitability of targeted farms/ businesses?*

*Income:* The main difficulty in answering the question, especially in terms of increased incomes, is the early stage of most of the activities in Component 2 (Rural Economic Development), and even earlier stages in Component 3 (Assistance to Highly Vulnerable Households and Individuals). Most of the respondents interviewed cited an increase in production, varying from 50% up to 100%, although most of the harvesting was not done yet. In many cases activities are so new for the grantees and locals in general that they have nothing to compare it to, as was the case with strawberries in Samegrelo.

*Production:* In all cases, respondents mentioned an increase in production, either as a result of new technologies/practices implemented or an increase in the relevant activity. This, however, is difficult to tie directly to any income increase, as in many of the cases; marketing of the product was not yet completed, while interviewees further expressed concern about selling their entire product. Even in value chains supported by NEO—such as vegetable production where producers have forward purchase agreements with buyers and receive part of the inputs on consignment—interviewees expressed concerns about sales, as the company was delaying payment for extended periods. Seed potato producers were so pessimistic about sales that they were planning to replant cultivated seeds and gain some profit through sales of consumption potatoes. On the other hand, strawberry producers were quite satisfied with sales, due to considerably higher market demand.

*Management and Technology:* Interviewees reported that in some cases the adoption of new technologies/practices was associated with decreased costs of production. For example, trainings provided for hazelnut producers in pest management resulted in a decrease by up to 50% in the amount of chemicals used. Information provided by agro-meteorological stations is also expected to have a considerable savings effect on production costs, namely treatment expenses. Installation of mulch systems in open field production was highly popular as it was increasing yields and decreasing labor and herbicide costs. Interviewees were not able to provide the precise value of cost savings or increased production due to the early stage of activities.

*Employment:* Jobs created were mostly limited to direct jobs and mainly were generated by nurseries and relatively large greenhouse projects. In most of the other activities, the labor force of the grantees was already sufficient.

*Community-wide Impact:* It should be noted that none of the respondents could identify evidence of broad-based growth in local communities, other than the standard practice of supported nurseries to give back 10% seedlings to vulnerable populations. Larger spill-over effects are expected by NEO staff when nurseries and demo plots will be fully operational. In some of the cases, interest on the part of local farmers in new technologies used by NEO grantees was reported. However these technologies / consultations are mainly on the production cycle and are provided on request by NEO experts. So far, farmers are unsure as to whether they will be ready to pay for such services in future.

*Linking Production to Marketing:* It is apparent that in order to maintain and follow-up on observed successes, NEO needs to focus more attention on product marketing. While it appears that NEO grantee farmers have begun to operate on more of a commercial basis, any inability to sell their increased production might result in loss of enthusiasm of the grantees toward new technologies and in general commercial approaches to farming.

*Associations:* Some associations were created under NEO activities, mainly for vegetable producers. Associations are currently unregistered entities and in all but one case have unpaid management. Statutes or rules for membership or other activities of the association are not known/clear to the members. Procurement and sales are not performed under the name of the association. Only in two cases were they using common equipment provided by NEO. In the case of the Kazbegi vegetable producers association, the chairman is paid by the buyer of the products. NEO is planning to invest more in capacity development of association management, which is considered crucial for the success and sustainability of the associations.

## **8.2 Evaluation Question 2: Grants vs. Other Assistance**

- *What was the impact of providing grants vs. other types of assistance as a means of addressing project goals?*

Grants are provided on a competitive basis after a four-step evaluation procedure, including on-site checks. The average contribution was 75%/25%, respectively, from NEO and the grantee. The technologies to be implemented and specification of items to be procured in most of the cases were chosen by NEO with very limited participation of the grantee. The investment size was in most cases also limited. Grantee contributions were mainly labor and land.

The high NEO contribution appears to have positively affected local buy-in and sustainability. NEO has also sought to build in sustainability via a careful selection process giving priority to experienced grantees and the number of potential indirect beneficiaries. However in order to further increase sustainability, NEO just made call for applications with 30% grant to 70% cost-share ratio. This will be an interesting dynamic to track over time.

### **8.3 Evaluation Question 3: NEO's Impact on Access to Financial Services**

- *What was NEO's impact on increasing access to financial services for underserved agricultural and non-agricultural rural producers/ processors/ service providers?*

NEO is financing the administrative costs for no-interest loans provided by CHCA (Local NGO partner) for NEO beneficiaries. All vocational training graduates qualify for loans from CHCA, and some of them have used these loans to procure tools in addition to the ones received after training. CHCA, however, is wrapping up its activities at the end of this year, and to our knowledge is not a lending institution with plans to continue lending to NEO beneficiaries.

None of the interviewees had received training in access to finance or were linked with financial institutions. Most of the respondents using loans for financing cost share or other reasons already had relations with financial institutions before NEO. Others are considering taking loans as last resort. In some cases, people prefer to quit activities rather than take a loan. The main sources of future financing were identified as own savings/income or external support. This was mainly due to negative attitude towards financial institutions triggered by high interest rates and a low ratio of collateral evaluation. The weak land market also makes it difficult to use land as collateral.

This year the Government of Georgia started subsidizing interest rates for agricultural loans. Subsidized rates vary from 0%-8% depending on the activity. According to NEO staff, NEO plans to put more attention on access to finance through state programs next year.

## 8.4 Evaluation Question 4: Impact on Highly Vulnerable Households for Sustainable Poverty Alleviation

- *What was the resulting impact of micro-grants, in-kind support, cash-for-work, and capacity-building interventions provided to highly vulnerable households toward sustainably alleviating poverty?*

*Vocational Training:* All of the respondents from the NEO staff identified vocational training as the biggest success of the project at this stage. According to NEO's performance monitoring system, 70% of those taking the vocational education course found employment afterwards. This figure exceeds the 30% employment found in this baseline evaluation for reasons discussed above. The endline evaluation will seek to harmonize these two figures.

While those completing the vocational education course appreciate the knowledge and certificates obtained from the course, most of those interviewed would have preferred NEO to provide more assistance to find employment. From NEO's perspective, it seeks to select participants with high motivation and a clear plan for future professional activities to have higher sustainability. Nonetheless, there does appear to be a mismatch between NEO's and participants' expectations in terms of what type of employment assistance should be provided.

The quality and usefulness of the courses is well valued by all respondents. Interviewees, however, did identify some drawbacks of the course, including limited space for practical activities and course duration (especially for cooking courses). Overall, respondents expressed high satisfaction with the curriculum and teachers.

*Toolkits:* According to respondents, the toolkits provided to the vocational education participants were almost as important as the training itself. Respondents noted difficulty with starting activities without tools, especially for trades like carpentry. However, the method for distributing toolkits was unclear. According to NEO staff, toolkits are provided to students with better performance and a clearer plan of future activities, although no clear (or standard) criteria for selection were provided (e.g. according to grades). On the other hand, the course budget includes toolkits for all participants and, up to now; all participants have received certificates of successful completion that presumably identifies them as professionals by the college. Thus, it is unclear to the respondents why less successful students who are still eligible for certificates should not also receive toolkits and, thereby, be further disadvantaged in a competitive labor market.

*On-the-Job Training:* This activity had only two beneficiaries at the time of the survey. Both women were employed at a guesthouse. These women were working part-time on demand, and for one of them, her pension was more than her salary. The second woman had previously participated in vocational training and received a toolkit. According to her, she was planning to quit the job for which she was received on-the-job training.

The exact nature and duration of the training provided leaves questions. As explained by NEO staff, the employer is supposed to provide a one-month training for future employees before the employment, and subcontractors would monitor the process. In this particular case, according to the guesthouse (employer), the two women were trained everyday in the local restaurant for a one month period. The women, however, they only received a one-day training from AIC (NEO subcontractor).

The project requirements are provided mainly through discussions with NEO or AIC staff and are not accompanied with written instructions and/or are not considered important by respondents. Neither agreement provides clear responsibilities for the participating parties. This often results in participants not being aware of, or not remembering, the basic requirements of the program. A guesthouse owner interviewed was able to provide only one document of relations with NEO/AIC, a contract on assets transfer. However, this document did not indicate any of the responsibilities for the grantee other than the duration of the jobs and that the employees should be socially vulnerable. Requirements like full/part-time job, minimum salary, etc. were not provided.

## **8.5 Evaluation Question 5: Gender**

- *Did the project affect men and women in the communities differently?*

In interviews, NEO staff consistently stated that there are no special measures taken by NEO under Components 2 and 3 to ensure gender participation, although staff does make efforts to ensure that women are aware of project activities. Significant issues with gender were not uncovered during field visits. Nonetheless, there do tend to be particular roles for men and women in the economy. This is most apparent in NEO's vocational training activities, which has courses for both traditionally male and female trades, such as carpentry and hairdressing respectively.

## **9 ANNEXES**

### **9.1 Annex 1: Evaluation Statement of Work**

#### **Attachment 1**

#### **IMPACT EVALUATION FOR NEW ECONOMIC OPPORTUNITIES (NEO) PROJECT STATEMENT OF WORK**

##### **I. Summary**

The impact evaluation will run until 2015 and will assess NEO's impact on rural incomes, household poverty levels; and community-level planning and economic infrastructure development processes in target communities.

The NEO project is a four-year, \$20.6-million activity with start and end dates of April 2011-April 2015. NEO's purpose is to improve rural incomes, reduce poverty levels, improve food security, and address critical, small-scale household and agricultural water constraints in targeted communities. Additionally, NEO will enable targeted internally displaced persons (IDP) to sustainably maintain their households and assist communities distressed by natural or other disasters.

NEO supports USAID/Georgia's assistance objective of improved economic competitiveness and welfare and its intermediate results: improved private sector competitiveness, improved economic security of targeted vulnerable populations and sectors, and improved economic infrastructure in strategic sectors.

##### **II. Background**

The NEO contract was awarded to Chemonics International in April 2011. Chemonics is implementing NEO in collaboration with their partners, International Relief and Development (IRD) and the National Opinion Research Center (NORC) at the University of Chicago.

The implementing partner is using a causal pathway methodology as a tool for their strategic approach, which envisions identifying impact statement and then working backward chronologically to define activities that produce the desired impact, NEO being a "development facilitator" in this process.

The impact statement as defined by the implementing partner reads as follows: "Sustainable poverty reduction, improved living standards for vulnerable populations and increased government participation in addressing local community needs."

NEO's activities are organized according to four components, including community-level economic development planning (LED); rural economic development; assistance to strengthen highly vulnerable households and individuals; and promoting the sustainability of IDP houses being rehabilitated with support from the USG. In addition, NEO has built-in small disaster response mechanism.

LED planning and economic strengthening activities represent the core of the program and are designed to complement each other. Within selected municipalities, NEO will apply a three-pronged approach in support of sustainable local economic development:

1. LED planning processes will serve as an entry point for NEO and help identify economic sectors, prioritize infrastructure and other investments, facilitate public-private dialogue, and leverage additional investments. NEO will accomplish this by mobilizing a network of stakeholders - local government and central government representatives, working groups and informal local leaders, donors, implementers, private sector — and establish coordination mechanisms and targeted LED events to foster dialogue and joint action.
2. NEO's economic strengthening activities are designed to address the needs of vulnerable segments of the population. Working in the value chains identified in the economic development plans, NEO will provide targeted assistance to facilitate vertical and horizontal linkages, increase access to finance and provide market driven training. These activities will be driven by market demands, economic principles and best practices.
3. In addition, NEO will provide micro-grants and technical assistance to highly vulnerable households to strengthen their food security. These activities may fall outside those sectors or value chains identified as "high potential" but may be implemented because of their potential impact on impoverished households. Beneficiaries will be selected based on a set of criteria developed to determine their vulnerability.

*IDP housing activities* were designed as stand-alone activities, as they might not align geographically with selected municipalities. In cases where there is geographic overlap, beneficiaries of IDP housing activities will be fully integrated into other NEO activities as per established criteria.

*NEO's disaster response* is not an on-going activity but rather a mechanism that can be triggered by USAID must the need arise.

NEO will provide assistance in 10 municipalities<sup>3</sup> (approximately 84 communities within these municipalities out of 159 in total in select municipalities) over the life of the project selected in coordination with USAID, the U.S. Embassy, and the Government of Georgia (GoG). Work began in three municipalities during the first year and expanded to additional five municipalities since September 2011. Work has commenced in a total of 29 communities and will gradually expand further to 55 communities in all ten target municipalities by the end of FY 2012. The municipalities were chosen based upon the following weighted criteria<sup>4</sup>:

- High population of disadvantaged (60 percent)
- Concentration of IDPs per municipality (30 percent)
- Proximity to conflict zones and/or impacted by the 2008 conflict (10 percent)

NEO plans to conduct three surveys such as baseline, mid-project and final-project household outcome and citizen satisfaction surveys to collect baseline and later measure the project's results<sup>5</sup>. The evaluation team

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<sup>3</sup> Defined as group of villages. Selected municipalities include: Oni, Tsageri, Kazbegi, Lentekhi, Kareli, Dusheti. Khashuri, Gori, Tsalenjikha and Zugdidi.

<sup>4</sup> NEO Annual Workplans - will be shared with the evaluation team each year.

<sup>5</sup> Some Outcome level indicators to be tracked by NEO (final indicators and targets will be shared with the evaluation team):

% increase in average value of targeted household production,

% of targeted vulnerable households and individuals raised to the official subsistence level

% change in average household incomes in targeted communities and sectors

% increase in number of adult individuals that perceive that the local government understands and is responsive to their needs

will be able to use this data; however will need to collect new/additional data based on the sample to be selected by the evaluator.

### **III. Purpose of the Impact Evaluation and Its Intended Use**

The purpose of this impact evaluation is to assess:

- a. whether NEO's support for community/municipal-level planning process and economic infrastructure development activities increased the voice of communities in municipal decision-making and resulted in economic impact on affected communities;
- b. whether NEO's rural economic development initiatives, including capacity building interventions and value chain assistance, improved rural incomes;
- c. whether assistance to vulnerable households alleviated poverty levels by increasing productivity or creating jobs.

The evaluation team must complete the study in three phases: baseline survey, scheduled in two rounds, in April 2012 (completed) and June 2013; and endline survey scheduled in March 2015. NEO commenced in April 2011. The proposed date for the baseline evaluation will fit well into the overall schedule of the project with regards to collecting baseline information, identifying sources of secondary data to be used as baseline for select municipalities, and select "treatment" and "control" communities. NEO staff, the external evaluation team, and the USAID mission must work together to coordinate data collection, monitoring and analysis as it overlaps for project monitoring and impact evaluation purposes.

Since part of the NEO funding is coming from the \$1 billion pledge, evaluation results will be used for **accountability** purposes both to the USG and Government of Georgia. In addition, this will be a **learning** experience since lessons learned throughout the evaluation process will contribute to the ongoing life of project implementation of NEO. The final results of the evaluation will help the mission to define future activities and approaches for community economic development planning, poverty alleviation and increase in rural incomes. These results will be shared widely within the E&E region.

#### IV. Evaluation Questions and Methodology

The Evaluation team must address the following key evaluation questions:

1. How effective and sustainable was the community and municipality economic development planning methodology and approach developed and used by the project? To what extent did the project result in: (a) incorporating community-level economic development priorities into higher-level municipal economic development plans and (b) leveraging GOG and/or other donor funding to finance the implementation of these plans (e.g. construction of economic infrastructure)?
2. What was the economic impact or change of income status of community members in a benefiting community as a result of the small infrastructure projects and in-kind procurements (e.g. farming equipment)?
3. What was the overall impact of NEO's rural economic development component (value chain assistance) on increasing incomes and creating jobs in targeted communities? To what degree did the component increase productivity and/or profitability of targeted farms/businesses?
4. What was the impact of providing grants vs. other types of assistance as a means of addressing project goals?
5. What was NEO's impact on increasing access to financial services for underserved agricultural and nonagricultural rural producers/processors/service-providers?
6. What was the resulting impact of micro-grants, in-kind support, cash-for-work and capacity-building interventions provided to highly vulnerable households toward sustainably alleviating poverty (e.g., an increase in productivity / the creation of sustainable micro-entrepreneurs, or providing one-time spike in consumption)?
7. Did the project affect men and women in the communities differently? (the evaluator must incorporate into research and provide sex-disaggregated data, where possible, such as women-headed households. etc.)
8. What was the impact of NEO's vocational education and on-the-job training activities on increasing incomes in targeted communities?"

Contractors must partner with a local organization/s and must suggest the best methods that minimize bias and provide strong evidence. While experimental designs generate the strongest evidence for impact, given the project design, municipality selection process, and timeline, quasi-experimental methods are likely to be more realistic. One possible methodology could be a difference-in-difference methodology in which a number of "treatment" communities from those targeted by the project are compared to non-affected "control" communities. The appropriate number of communities to include in the sample and the method for selecting those communities must be proposed by the evaluation team.

Various data collection and analysis methods, both quantitative and qualitative, must be used, including surveys (to supplement project-collected data where needed to answer impact questions) and secondary data sources (including official country statistical information), interviews, and focus groups (to get qualitative information on community member perceptions around the issues of the study). When possible, NEO-collected baseline data must be used to avoid duplication in data collection.

The contractor must coordinate with the NEO implementing partner with regards to data collection. However, since the evaluation team will be selecting communities for the study, the contractor must collect their own data for their sample, which they must do through their local partner organization to be cost-effective. The prime contractor must take the lead in survey design and data analysis.

Responses to evaluation question #1 may be obtained partly by a review of annual financing trends for project-assisted vs. other communities.

Responses to evaluation question #7 must be obtained using interviews and focus groups.

Data collection and analysis approaches must be further elaborated by the contractor and proposed to USAID based on the methodology for this evaluation. Also, the confidence level, sample size including for surveys, and sampling methodology must be proposed and justified considering number of municipalities and communities targeted by NEO.

The evaluation contractor must conduct up to three (three/four-week) visits to Georgia. The team must include local partner organization experts. Below are the evaluation Work Plan activities by Component:

**Component I (Baseline field work - April 2012 and June 2013):**

The important task of this component is to develop the detailed evaluation plan for all visits, to make sample of municipalities for research and to set baseline. The evaluation plan must include detailed description of research methodology including its strengths and limitations. The plan must also include an evaluation matrix — each evaluation question with respective methodology to collect information, information source, etc. The evaluation plan and the results of the first visit, including the baseline report must be submitted in two parts. Component 1.1 Draft Report, presenting the qualitative and quantitative survey activities and data collected regarding NEO Local Economic development (NEO Component 1) activities, must be submitted by COB Tbilisi time on August 31, 2012. Component 1.2 Draft report, presenting the qualitative and quantitative survey

activities and data collected regarding the NEO Economic Strengthening, Vulnerable Households and Vocational Education and On-the-Job Training activities must be submitted by COB Tbilisi time on June 30, 2013.

The Contractor must:

1. Create and submit research design and work plan;
2. Select "treatment" and "control" municipalities;
3. Finalize baseline work plan;
4. Set baseline for the study: plan and collect baseline information including baseline survey (coordinate with the project plans);
5. Develop survey questionnaire;
6. Develop interview discussion guides;
7. Train survey enumerators;
8. Conduct pilot test of survey questionnaire;
9. Initiate qualitative field work;
10. Gather, review and analyze secondary data;
11. Analyze survey data;
12. Analyze qualitative data;
13. Set coordination mechanisms with NEO leadership on collecting and sharing project monitoring data.
14. Produce Component I report.

The contractor must provide two consultants as part of the evaluation team. The consultants must work with local consultants to develop the baseline survey plan, review secondary data as well as develop the evaluation plan for each component of the evaluation. Part of the work will be conducted in Georgia and part in the US. Namely, finalization of the evaluation plan after baseline survey results become available as well as finalization of the Component report will be done in the US.

**Local partner:**

Local partner organization must collect baseline data, work with international partner on evaluation design, secondary data gathering as well as working with the NEO project implementer on sharing existing monitoring and baseline data. In between the visits the local partner must be following up as needed on data collection and serving as a resource on the ground for international partner.

1. Carry out baseline survey
2. Submit baseline report
3. Gather secondary data
4. Participate in evaluation design
5. Follow program evolution

6. Review monitoring data and follow the data collection
7. Coordinate with NEO staff on monitoring data collection between components.

**Component III (Endline field work - March 2015):**

The purpose of the third component is to conduct the last part of the study to make conclusions on the project impact with regards to the evaluation questions listed under chapter IV of the current document.

The Contractor must:

1. Revise and finalize end line research design to reflect changes to project strategy, activities, locations. etc. and other factors;
2. Finalize endline work plan;
3. Gather, review and analyze secondary data (including project monitoring data);
4. Collect final survey data
5. Conduct end line qualitative research;
6. Analyze survey and qualitative data;
7. Submit draft evaluation report (including conclusions on the impact of the NEO project on the key evaluation questions);
8. Finalize the report based on stakeholder review comments.

The contractor must submit the draft report within forty-four days after the completion of the third and final component, and must finalize the report based on the feedback within 5 days after providing the comments.

Close collaboration with USAID and NEO implementer is expected during all visits.

## **9.2 Annex 2: Statement of Difference**

This report confirms that there has not been significant unresolved difference of opinion by funders, implementers, and/or members of the evaluation team.

### 9.3 Annex 3: Baseline 1.2 (NEO Project Components 2, 3) Rural Production Survey Instrument

FIRST, MAKE SURE YOU HAVE THE RIGHT RESPONDENT. THIS WILL BE THE PERSON WHO BENEFITTED FROM NEO ASSISTANCE AND WHO IS RESPONSIBLE FOR THE PRODUCTION ACTIVITY COVERED BY THE SURVEY.

Introduction: "My name is..... We're interviewing people here in [name of village] in order to learn more about their agricultural and non-agricultural production activities as part of an assessment of the USAID-funded New Economic Opportunities project. The information obtained will be used to improve services offered by the project in the future. All answers will be seen only by the research team and will be kept fully confidential.

Always politely ask the interviewee for permission to interview him/her. Only after they have consented to be interviewed should you begin to ask questions.

Questionnaire Identification Number |\_\_|\_\_|\_\_|\_\_|\_\_|

Team Code |\_\_|\_\_|

Municipality

|          |   |
|----------|---|
| Gori     | 1 |
| Kareli   | 2 |
| Khashuri | 3 |

|             |    |
|-------------|----|
| Dusheti     | 4  |
| Kazbegi     | 5  |
| Zugudi      | 6  |
| Tsalenjikha | 7  |
| Oni         | 8  |
| Tsageri     | 9  |
| Lentekhi    | 10 |

Name of Settlement (INDICATE NAME AND CODE)

Sakrebulo \_\_\_\_\_ Code

Village \_\_\_\_\_ Code

Respondent's status:

|              |   |
|--------------|---|
| Local        | 1 |
| IDP/ Refugee | 2 |

Household Code |\_\_|\_\_|\_\_|\_\_|\_\_|

Respondent Code |\_\_|\_\_|\_\_|\_\_|\_\_|

Treatment or Control Village |\_\_|\_\_|\_

|           |   |
|-----------|---|
| Treatment | 1 |
| Control   | 2 |

Type of Beneficiary (for Treatment respondents):

|                      |   | Amount of Grant-Cash | Amount of Grant-In-Kind |
|----------------------|---|----------------------|-------------------------|
| Productive grant     | 1 |                      |                         |
| Agriculture training | 2 | NA                   | NA                      |
| Livelihood package   | 3 |                      |                         |

Production activity for which the respondent received NEO assistance MULTIPLE RESPONSES ALLOWED:

|              |    |                            |    |
|--------------|----|----------------------------|----|
| Tomato       | 1  | Plum                       | 22 |
| Cucumber     | 2  | Cherry                     | 23 |
| Eggplant     | 3  | Hazelnut                   | 24 |
| Pepper       | 4  | Beekeeping                 | 25 |
| Broccoli     | 5  | Rabbits                    | 26 |
| Lettuce      | 6  | Poultry                    | 27 |
| Herbs/Greens | 7  | Tailoring                  | 28 |
| Beets        | 8  | Hairdressing               | 29 |
| Onions       | 9  | Cobbler                    | 30 |
| Carrots      | 10 | Car repair/ wash           | 31 |
| Potato       | 11 | Carpentry/ woodworking     | 32 |
| Mushroom     | 12 | Food processing/catering   | 33 |
| Grain        | 13 | Stone & ceramic processing | 34 |
| Strawberry   | 14 | Retail shop/ sales         | 35 |
| Raspberry    | 15 | Guesthouse                 | 36 |
| Blackberry   | 16 | Bakery & confection        | 37 |
| Current      | 17 | Cafe                       | 38 |
| Gooseberry   | 18 | Souvenir/handicrafts       | 39 |

|                        |    |                                       |    |
|------------------------|----|---------------------------------------|----|
| Wine Grape             | 19 | Welding                               | 40 |
| Apple                  | 20 | Plumbing                              | 41 |
| Pear                   | 21 | Event hall (funerals, weddings, etc.) | 42 |
| Other (Describe) _____ |    |                                       |    |

IMPORTANT DETAILS

|                               |  |
|-------------------------------|--|
| Interviewer's name            |  |
| Interviewer's ID number       |  |
| Respondent's name             |  |
| Contact address               |  |
| Respondent's telephone number |  |
| Interview date                |  |

GPS Coordinates: |\_\_|\_\_|\_\_|\_\_|\_\_|\_\_||\_\_|\_\_|\_\_|\_\_|\_\_|\_\_|

Description of how to reach the house from the nearest well-known town or point, so that a stranger can find it.  
Include nearest churches, schools or other landmarks.

Detailed sketch map of the location of the house

INTERVIEW START TIME: \_\_\_\_\_

INTERVIEW END TIME: \_\_\_\_\_

SUPERVISOR SIGNATURE: \_\_\_\_\_

PLEASE, USE FOLLOWING CODES

DON'T KNOW – 99

NOT APPLICABLE – 88

REFUSED TO ANSWER - 77

## 1. Household Demographics

Info about Household members

| No. | H1. Name | H2. Age | H3. Gender | H4. Relation to Head of Household | H5. Marital Status | H6. Ethnicity | H7. Brings Income | H8. Source of Income | H9. Most Important Sources of Household Income | H10. Highest Level of Education Completed |
|-----|----------|---------|------------|-----------------------------------|--------------------|---------------|-------------------|----------------------|------------------------------------------------|-------------------------------------------|
| 1   |          |         |            |                                   |                    |               |                   |                      |                                                |                                           |
| 2   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 3   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 4   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 5   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 6   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 7   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 8   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 9   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |

|    |  |  |  |  |  |  |  |  |  |    |
|----|--|--|--|--|--|--|--|--|--|----|
| 10 |  |  |  |  |  |  |  |  |  | NA |
|----|--|--|--|--|--|--|--|--|--|----|

|     |  |  |                    |                                                                                                                                                                                                            |                                                                               |                                                                                                                  |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                       |                                                                                                                                                                                                                                                                                          |
|-----|--|--|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 153 |  |  | 1-Male<br>2-Female | 1-Head of household<br>2-Spouse<br>3-Son/Daughter<br>4-Mother/Father<br>5-Son-in-law, brother-in-law, daughter-in-law, sister-in-law<br>6-Grandson/ Grand daughter<br>7-Relative<br>8-Other<br>9-No answer | 1- Single (never married)<br>2- Married<br>3- Divorced/ separated<br>4- Widow | 1-Georgian<br>2-Armenian<br>3-Russian<br>4-Azeri<br>5-Greek<br>6-Kurdish<br>7-Ossetian<br>8-Abkhazian<br>9-Other | 1-Yes<br>2-No | 1-Self employed in farming--livestock and agriculture<br>2-Self employed in own business or professional activity unrelated to farming<br>3-Intermittently employed or works from time to time<br>4-Permanently employed—state or public sector<br>5-Permanently employed-private sector<br>6-Unemployed— seeking employment in the last month<br>7-Unemployed— not seeking employment in past month<br>8—Pensioner<br>9—Student<br>10-Unfit or of limited fitness for work<br>11-Other | 1-Most important<br>2-Second most important<br>3-Third most important | 1 - Illiterate<br>2 - Elementary (1-4 classes)<br>3 - Incomplete Secondary (1-9/8 classes)<br>4 - Complete Secondary (general)<br>5 - Complete Secondary (specialized)<br>6 - Incomplete higher<br>7 - Higher (Institute, University)<br>8 - Degree/ Post-graduated (Candidate, MA, PhD) |
|-----|--|--|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Household Economic Conditions

E1. How would you assess the financial conditions of your HH regarding income?

|                                                                     | READ OPTIONS |
|---------------------------------------------------------------------|--------------|
| Good –we can freely spend money                                     | 5            |
| Medium–we can easily meet our daily financial needs                 | 4            |
| Satisfactory –we can somewhat meet our daily requirements           | 3            |
| Bad –income (harvested goods) are only enough for consuming as food | 2            |
| Very bad – we can't even ensure minimum food for consumption        | 1            |

E2. According to your property status (residence, land, housing, and etc.) to which category among those listed below does your household belong?

|      | READ OPTIONS |
|------|--------------|
| Rich | 5            |

|                       |   |
|-----------------------|---|
| Wealthy               | 4 |
| Middle class          | 3 |
| Poor                  | 2 |
| Very poor (miserable) | 1 |

E3. Do you own the following durable goods in working condition?

| Durable Good              | Own |    | Number | Purchased or Gifted |        |      |
|---------------------------|-----|----|--------|---------------------|--------|------|
|                           | Yes | No |        | Purchased           | Gifted | Both |
| Color TV set              | 1   | 2  |        | 1                   | 2      | 3    |
| Refrigerator              | 1   | 2  |        | 1                   | 2      | 3    |
| Automatic washing machine | 1   | 2  |        | 1                   | 2      | 3    |
| Car                       | 1   | 2  |        | 1                   | 2      | 3    |

|                                     |   |   |  |   |   |   |
|-------------------------------------|---|---|--|---|---|---|
| DVD player                          | 1 | 2 |  | 1 | 2 | 3 |
| Personal computer, including laptop | 1 | 2 |  | 1 | 2 | 3 |
| Air conditioner                     | 1 | 2 |  | 1 | 2 | 3 |
| Vacuum cleaner                      | 1 | 2 |  | 1 | 2 | 3 |
| Satellite dish                      | 1 | 2 |  | 1 | 2 | 3 |
| Independent heating system          | 1 | 2 |  | 1 | 2 | 3 |

E4. Do you own the following agricultural assets in working condition?

| Durable Good        | Own |    | Number | Purchased or Gifted |        |      |
|---------------------|-----|----|--------|---------------------|--------|------|
|                     | Yes | No |        | Purchased           | Gifted | Both |
| Tractor             | 1   | 2  |        | 1                   | 2      | 3    |
| Animal drawn plough | 1   | 2  |        | 1                   | 2      | 3    |

|                            |   |   |  |   |   |   |
|----------------------------|---|---|--|---|---|---|
| Mechanical plough          | 1 | 2 |  | 1 | 2 | 3 |
| Wheelbarrows               | 1 | 2 |  | 1 | 2 | 3 |
| Trailer                    | 1 | 2 |  | 1 | 2 | 3 |
| Motorized thresher         | 1 | 2 |  | 1 | 2 | 3 |
| Hand thresher              | 1 | 2 |  | 1 | 2 | 3 |
| Mechanical water pump      | 1 | 2 |  | 1 | 2 | 3 |
| Hand water pump            | 1 | 2 |  | 1 | 2 | 3 |
| Mill                       |   |   |  |   |   |   |
| Motorized insecticide pump |   |   |  |   |   |   |
| Greenhouse                 |   |   |  |   |   |   |

E5. In the past 12 months, has your household . . . ? HOUSEHOLD EXPENSES ARE THE DAY-TO-DAY NEEDS OF THE HOUSEHOLD, INCLUDING FOOD, HOUSING, HEATING, COOKING FUELD, CLOTHING, SCHOOLING, MEDICAL CARE, ETC.

|                                                                                                                  | Yes | No |
|------------------------------------------------------------------------------------------------------------------|-----|----|
| Saved money                                                                                                      | 1   | 2  |
| Just got by                                                                                                      | 1   | 2  |
| Spent savings to pay household expenses                                                                          | 1   | 2  |
| Borrowed money to pay household expenses                                                                         | 1   | 2  |
| Sold off household assets to pay household expenses (TV set, DVD player, furniture, clothes, jewelry, etc.)      | 1   | 2  |
| Sold off productive assets to pay household expenses (livestock, farming implements, equipment, machinery, etc.) | 1   | 2  |

E6. According to your assessment, how has the financial condition of your household changed in the last 12 months?

|                        | READ OPTIONS |
|------------------------|--------------|
| Significantly worsened | 1            |
| Slightly worsened      | 2            |
| Remained the same      | 3            |

|                        |   |
|------------------------|---|
| Slightly improved      | 4 |
| Significantly improved | 5 |

E7. According to your assessment, how will the financial condition of your household change over the next 12 months?

|                            |              |
|----------------------------|--------------|
|                            | READ OPTIONS |
| Will significantly worsen  | 1            |
| Will slightly worsen       | 2            |
| Will remain the same       | 3            |
| Will slightly improve      | 4            |
| Will significantly improve | 5            |

E8. Over the past year, how often, if ever, has your household had to limit the consumption of the following due to financial difficulties?

|                                 | Never | Just Once or Twice | Several Times | Many Times | Always |
|---------------------------------|-------|--------------------|---------------|------------|--------|
| Bread, khomi, pasta             | 5     | 4                  | 3             | 2          | 1      |
| Butter, milk, cheese            | 5     | 4                  | 3             | 2          | 1      |
| Oil                             | 5     | 4                  | 3             | 2          | 1      |
| Meat, chicken, or fish          | 5     | 4                  | 3             | 2          | 1      |
| Fruits, vegetables              | 5     | 4                  | 3             | 2          | 1      |
| Potatoes                        | 5     | 4                  | 3             | 2          | 1      |
| Fuel for cooking                | 5     | 4                  | 3             | 2          | 1      |
| Electricity or fuel for heating | 5     | 4                  | 3             | 2          | 1      |
| Medicines or medical treatment  | 5     | 4                  | 3             | 2          | 1      |

E9. In the past [4 weeks/30 days], was there ever no food to eat of any kind in your house because of lack of resources to get food?

0 = No (Skip to ?)

1 = Yes | \_\_\_ |

E10. How often did this happen in the past [4 weeks/30 days]?

1 = Rarely (1–2 times)

2 = Sometimes (3–10 times)

3 = Often (more than 10 times)

E11. In the past [4 weeks/30 days], did you or any household member go to sleep at night hungry because there was not enough food?

0 = No (Skip to E10)

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1 = Yes

E12. How often did this happen in the past [4 weeks/30 days]?

1 = Rarely (1–2 times)

2 = Sometimes (3–10 times)

3 = Often (more than 10 times)

E13. In the past [4 weeks/30 days], did you or any household member go a whole day and night without eating anything at all because there was not enough food?

0 = No (Skip to E12)

1 = Yes

E14. How often did this happen in the past [4 weeks/30 days]?

162

1 = Rarely (1–2 times)

2 = Sometimes (3–10 times)

3 = Often (more than 10 times)

E15. Has your household applied for governmental social assistance in the last 12 months?

|     |   |                  |
|-----|---|------------------|
| Yes | 1 | SKIP QUESTION E9 |
| No  | 2 | CONTINUE         |

E16. If you haven't applied, what was the reason for not applying for governmental social assistance?

|                                     |   |
|-------------------------------------|---|
|                                     |   |
| Because I don't think that I'm poor | 1 |

|                                                                    |   |
|--------------------------------------------------------------------|---|
| Maybe I'm in shortage, but others experience more severe shortages | 2 |
| I didn't have hope of receiving social assistance                  | 3 |
| I don't trust this system                                          | 4 |
| Other (describe)                                                   |   |

E17. Was your household granted with social assistance by the government during the last 12 months?

|                                      |   |                            |
|--------------------------------------|---|----------------------------|
| Yes – during the whole year          | 1 | CONTINUE                   |
| Yes – during some period of the year | 2 |                            |
| No                                   | 3 | SKIP QUESTIONS E11 AND E12 |

E18. If yes, what amount in GEL did your household receive from social benefits over the last 12 months? *(RECORD THE AMOUNT IN GEL)*

Write in \_\_\_\_\_ GEL

E19. In your opinion, how important is social assistance by the government for you?

|                  |              |
|------------------|--------------|
|                  | READ OPTIONS |
| Very important   | 4            |
| Important        | 3            |
| Unimportant      | 2            |
| Very unimportant | 1            |

E20. Was your HH or any HH member included in the government-run healthcare insurance program in the last 12 months?

|     |   |                   |
|-----|---|-------------------|
| Yes | 1 | CONTINUE          |
| No  | 2 | SKIP QUESTION E14 |

E21. In your opinion how important is it for you to participate in the government-run healthcare insurance program?

|  |              |
|--|--------------|
|  | READ OPTIONS |
|--|--------------|

|                  |   |
|------------------|---|
| Very important   | 4 |
| Important        | 3 |
| Unimportant      | 2 |
| Very unimportant | 1 |

NOW, I WOULD LIKE TO KNOW MORE ABOUT THE CONSUMPTION OF THE WHOLE HOUSEHOLD FOR DIFFERENT ITEMS. PLEASE GIVE THE ESTIMATED AMOUNTS FOR THE CONSUMPTION FOR THE ENTIRE HOUSEHOLD.

E22. Food, Beverage, and Tobacco

Over the past 7 days approximately how much have you spent for each of the following items?

|                                                                | a) Purchased (GEL) | b) Home Produced (GEL) | c) Reserves (GEL) | d) Received as Gift (GEL) |
|----------------------------------------------------------------|--------------------|------------------------|-------------------|---------------------------|
| Food (meat, vegetables, fruits, dairy, grains, starches, etc.) |                    |                        |                   |                           |

|                                                                         |  |  |  |  |
|-------------------------------------------------------------------------|--|--|--|--|
| Non-alcoholic beverages (mineral water, juice, soda, tea, coffee, etc.) |  |  |  |  |
| Alcoholic beverages and tobacco                                         |  |  |  |  |
| Salt, sugar, honey, sauces, condiments                                  |  |  |  |  |

E23. Non-Durable Goods and Frequently Purchased Services

Over the past 30 days, approximately, how much have you spent for each of the following items?

|                                                                                        | a) Purchased (GEL) | b) Received as Gift, Including vouchers (GEL) |
|----------------------------------------------------------------------------------------|--------------------|-----------------------------------------------|
| 1. Fuel and electricity for the household                                              |                    |                                               |
| 2. Transport and communication (tires, tubes, taxi/bus fares, benzene and diesel fuel) |                    |                                               |
| 3. Communication (mobile phone, mobile phone credit, internet service)                 |                    |                                               |
| 4. Cleaning and personal hygiene (washing powder, soap, shampoo, detergents, etc.)     |                    |                                               |

|    |                                     |  |  |
|----|-------------------------------------|--|--|
| 5. | Restaurants and hotels              |  |  |
| 6. | Culture and recreation              |  |  |
| 7. | Savings                             |  |  |
| 8. | Loans to family, friends, others    |  |  |
| 9. | Transfer to family, friends, others |  |  |

E24. Semi-Durable Goods and Durable Goods and Services

Over the past 12 months, approximately, how much have you spent for each of the following items?

|                                                                                                                                         | a) Purchased (GEL) | b) Received as Gift (GEL) |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------|
| 1. Clothing and Footwear                                                                                                                |                    |                           |
| 2. Household goods (furniture, radio, bicycle, phone, refrigerator, washing machine, air conditioner, satellite dish, other appliances) |                    |                           |
| 3. Education                                                                                                                            |                    |                           |

|                                                                                                                                                      |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| 4. Health and medical care (e.g., doctors, medicines, hospital/clinic charges)                                                                       |  |  |
| 5. Residential property, including home improvements (Does not include property purchased for production purposes or purchased solely as investment) |  |  |

E25. What is your housing status?

|                             |   |
|-----------------------------|---|
|                             |   |
| Own                         | 1 |
| Rent                        | 2 |
| Mortgaged                   | 3 |
| Provided for free occupancy | 4 |

E26. What is the total area of your apartment/house in square meters?

E27. How many rooms are in your residence (excluding cousin , corridor, bathroom, toilet, loggia, and other storages)

E24.1. In total \_\_\_\_\_

E24.2. Bedrooms \_\_\_\_\_

E28. Is your apartment/house provided with the following items?

|                                     | Yes | No |
|-------------------------------------|-----|----|
| 1. Hot water - central              | 1   | 2  |
| 2. Hot water - individual system    | 1   | 2  |
| 3. Electricity                      | 1   | 2  |
| 4. Gas supply - central             | 1   | 2  |
| 5. Liquid gas supply - gas balloons | 1   | 2  |
| 6. Electric Heating - individual    | 1   | 2  |
| 7. Gas heating - paid               | 1   | 2  |
| 8. Gas heating – state provided     | 1   | 2  |
| 9. Wood burning heating             | 1   | 2  |

|                        |   |   |
|------------------------|---|---|
| 10. Landline telephone | 1 | 2 |
| 11. Internet           | 1 | 2 |
| 12. Wireless phone     | 1 | 2 |
| 13. Mobile phone       | 1 | 2 |

E29. Do you own the following livestock?

| Livestock | Own |    | Number |
|-----------|-----|----|--------|
|           | Yes | No |        |
| Cows      | 1   | 2  |        |
| Bulls     | 1   | 2  |        |
| Calves    | 1   | 2  |        |
| Sheep     | 1   | 2  |        |
| Goats     | 1   | 2  |        |

|          |   |   |  |
|----------|---|---|--|
| Pigs     | 1 | 2 |  |
| Poultry  | 1 | 2 |  |
| Donkeys  | 1 | 2 |  |
| Horses   | 1 | 2 |  |
| Rabbits  | 1 | 2 |  |
| Beehives | 1 | 2 |  |

E30. How many land plots do/did you use for cultivation (including leased land)? \_\_\_\_\_

E31. Area of the holding land (in ha, within 0.01 ha)

|                                 |  |
|---------------------------------|--|
| a) Owned                        |  |
| b) Rented Total (c + d)         |  |
| c) Rented from state            |  |
| d) Rented from a private person |  |
| e) Total area (a + b)           |  |

Agricultural Production

VEGETABLE & GRAIN PRODUCTION

| <p><b>VG1.</b> Have you harvested any [...] during the past cropping season?<br/>ASK ABOUT PRODUCTION ACTIVITIES COVERED BY THE SURVEY (SEE ABOVE)<br/>YES=1<br/>NO=2</p> | <p><b>VG2.</b> Is [...] an open field or a greenhouse/ family plot crop?<br/>OPEN FIELD=1<br/>GREENHOUSE/<br/>FAMILY PLOT=2</p> | <p><b>VG3.</b> How many years have you grown [...]?<br/>IF LESS THAN 1 YEAR WRITE IN 0</p> | <p><b>VG4.</b> What is the total land area used to cultivate [...]?<br/>OPEN FIELD=<br/>HECTARES<br/>GREENHOUSE/<br/>FAMILY PLOT=<br/>SQUARE METERS</p> | <p><b>VG5.</b> How many months is the cropping season for [...]?</p> | <p><b>VG6.</b> How many harvests of [...] do you produce over a 12-month period?</p> | <p><b>VG7.</b> When you harvest [...], what is the unit you use to measure production?<br/>KILOGRAMS=1<br/>GRAMS=2<br/>NUMBER=3<br/>BASKETS=4<br/>BUSHELS=5<br/>TONS=6<br/>OTHER=7</p> | <p><b>VG8.</b> How much of [...] did you harvest during past cropping season?<br/>USE APPROPRIATE UNIT OF MEASURE</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| 1. Tomato                                                                                                                                                                 |                                                                                                                                 |                                                                                            |                                                                                                                                                         |                                                                      |                                                                                      |                                                                                                                                                                                        |                                                                                                                       |
| 2. Cucumber                                                                                                                                                               |                                                                                                                                 |                                                                                            |                                                                                                                                                         |                                                                      |                                                                                      |                                                                                                                                                                                        |                                                                                                                       |
| 3. Eggplant                                                                                                                                                               |                                                                                                                                 |                                                                                            |                                                                                                                                                         |                                                                      |                                                                                      |                                                                                                                                                                                        |                                                                                                                       |
| 4. Pepper                                                                                                                                                                 |                                                                                                                                 |                                                                                            |                                                                                                                                                         |                                                                      |                                                                                      |                                                                                                                                                                                        |                                                                                                                       |
| 5. Broccoli                                                                                                                                                               |                                                                                                                                 |                                                                                            |                                                                                                                                                         |                                                                      |                                                                                      |                                                                                                                                                                                        |                                                                                                                       |
| 6. Lettuce                                                                                                                                                                |                                                                                                                                 |                                                                                            |                                                                                                                                                         |                                                                      |                                                                                      |                                                                                                                                                                                        |                                                                                                                       |
| 7. Herbs/Greens                                                                                                                                                           |                                                                                                                                 |                                                                                            |                                                                                                                                                         |                                                                      |                                                                                      |                                                                                                                                                                                        |                                                                                                                       |
| 8. Beets                                                                                                                                                                  |                                                                                                                                 |                                                                                            |                                                                                                                                                         |                                                                      |                                                                                      |                                                                                                                                                                                        |                                                                                                                       |
| 9. Onions                                                                                                                                                                 |                                                                                                                                 |                                                                                            |                                                                                                                                                         |                                                                      |                                                                                      |                                                                                                                                                                                        |                                                                                                                       |
| 10. Carrots                                                                                                                                                               |                                                                                                                                 |                                                                                            |                                                                                                                                                         |                                                                      |                                                                                      |                                                                                                                                                                                        |                                                                                                                       |
| 11. Potato                                                                                                                                                                |                                                                                                                                 |                                                                                            |                                                                                                                                                         |                                                                      |                                                                                      |                                                                                                                                                                                        |                                                                                                                       |
| 12. Mushroom                                                                                                                                                              |                                                                                                                                 |                                                                                            |                                                                                                                                                         |                                                                      |                                                                                      |                                                                                                                                                                                        |                                                                                                                       |
| 13. Grain                                                                                                                                                                 |                                                                                                                                 |                                                                                            |                                                                                                                                                         |                                                                      |                                                                                      |                                                                                                                                                                                        |                                                                                                                       |

|    | <b>VG9.</b> How much of the [...] you harvested during the past cropping season was sold?<br>USE APPROPRIATE UNIT OF MEASURE | <b>VG10.</b> What TOTAL amount did you get for the [...] that you sold?<br>GEL | <b>VG11.</b> Where did you sell most of [...]?<br>OWN FARM 1 | <b>VG12.</b> To whom did you sell most of your [...]?<br>CONSUMER 1 | <b>VG13.</b> How much of the [...] you harvested during the past cropping season did your household consume?<br>USE APPROPRIATE UNIT OF MEASURE | <b>VG14.</b> How much of the [...] you harvested during the past cropping season did you use for animals?<br>USE APPROPRIATE UNIT OF MEASURE |
|----|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                                                                              |                                                                                | MARKET IN COMMUNITY 2                                        | MIDDLEMAN 2                                                         |                                                                                                                                                 |                                                                                                                                              |
|    |                                                                                                                              |                                                                                | MARKET OUTSIDE COMMUNITY 3                                   | WHOLESALE 3                                                         |                                                                                                                                                 |                                                                                                                                              |
|    |                                                                                                                              |                                                                                | SMALL SHOP 4                                                 | RETAILER 4                                                          |                                                                                                                                                 |                                                                                                                                              |
|    |                                                                                                                              |                                                                                | SUPERMARKET 5                                                | OTHER (Specify _____) 5                                             |                                                                                                                                                 |                                                                                                                                              |
|    |                                                                                                                              |                                                                                | AGRO-INDUSTRY 6                                              |                                                                     |                                                                                                                                                 |                                                                                                                                              |
|    |                                                                                                                              |                                                                                | OTHER (Specify _____) 7                                      |                                                                     |                                                                                                                                                 |                                                                                                                                              |
| 1  |                                                                                                                              |                                                                                |                                                              |                                                                     |                                                                                                                                                 |                                                                                                                                              |
| 2  |                                                                                                                              |                                                                                |                                                              |                                                                     |                                                                                                                                                 |                                                                                                                                              |
| 3  |                                                                                                                              |                                                                                |                                                              |                                                                     |                                                                                                                                                 |                                                                                                                                              |
| 4  |                                                                                                                              |                                                                                |                                                              |                                                                     |                                                                                                                                                 |                                                                                                                                              |
| 5  |                                                                                                                              |                                                                                |                                                              |                                                                     |                                                                                                                                                 |                                                                                                                                              |
| 6  |                                                                                                                              |                                                                                |                                                              |                                                                     |                                                                                                                                                 |                                                                                                                                              |
| 7  |                                                                                                                              |                                                                                |                                                              |                                                                     |                                                                                                                                                 |                                                                                                                                              |
| 8  |                                                                                                                              |                                                                                |                                                              |                                                                     |                                                                                                                                                 |                                                                                                                                              |
| 9  |                                                                                                                              |                                                                                |                                                              |                                                                     |                                                                                                                                                 |                                                                                                                                              |
| 10 |                                                                                                                              |                                                                                |                                                              |                                                                     |                                                                                                                                                 |                                                                                                                                              |
| 11 |                                                                                                                              |                                                                                |                                                              |                                                                     |                                                                                                                                                 |                                                                                                                                              |
| 12 |                                                                                                                              |                                                                                |                                                              |                                                                     |                                                                                                                                                 |                                                                                                                                              |
| 13 |                                                                                                                              |                                                                                |                                                              |                                                                     |                                                                                                                                                 |                                                                                                                                              |

|    | <b>VG15.</b> How much of the [...] you harvested during the past cropping season did you use for seed?<br>USE APPROPRIATE UNIT OF MEASURE | <b>VG16.</b> How much of the [...] you harvested during the past cropping season did you give away as a gift?<br>USE APPROPRIATE UNIT OF MEASURE | <b>VG17.</b> How much of the [...] you harvested during the past cropping season did you lose due to spoilage, disease, animals, weather, and other causes?<br>USE APPROPRIATE UNIT OF MEASURE |
|----|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  |                                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                |
| 2  |                                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                |
| 3  |                                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                |
| 4  |                                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                |
| 5  |                                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                |
| 6  |                                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                |
| 7  |                                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                |
| 8  |                                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                |
| 9  |                                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                |
| 10 |                                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                |
| 11 |                                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                |
| 12 |                                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                |
| 13 |                                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                |

**VG18.** How much do you estimate that you spent in total to produce [NAME ALL CROPS BEING PRODUCED FROM ABOVE] in the past cropping season? (REMIND THE RESPONDENT WHAT THE CROPS ARE)

| Cost Item                                                   | GEL |
|-------------------------------------------------------------|-----|
| Land rental                                                 |     |
| Seed                                                        |     |
| Irrigation                                                  |     |
| Fertilizer                                                  |     |
| Pesticide/insecticide                                       |     |
| Herbicide/Fungicide                                         |     |
| Spraying service                                            |     |
| Labor                                                       |     |
| Machine rental (e.g., tractor, rototiller)                  |     |
| Machine maintenance, repair, and parts                      |     |
| Fuel for machines                                           |     |
| Storage                                                     |     |
| Transport                                                   |     |
| Irrigation, watering                                        |     |
| Construction (e.g., greenhouses, storage raised beds, etc.) |     |
| Other (specify)                                             |     |
| Other (specify)                                             |     |

**VG19.** How many male and female employees worked for you during the past cropping season to produce [NAME ALL CROPS BEING PRODUCED FROM ABOVE] and got payment for that?

|        |  |
|--------|--|
| Male   |  |
| Female |  |

**VG20.** How many days in total did each employee work during the past cropping season? (LIST UP TO 10 EMPLOYEES)

|    |     |
|----|-----|
| 1. | 6.  |
| 2. | 7.  |
| 3. | 8.  |
| 4. | 9.  |
| 5. | 10. |

**VG21.** How many hours did each employee work on a typical day? (LIST UP TO 10 EMPLOYEES)

|    |     |
|----|-----|
| 1. | 6.  |
| 2. | 7.  |
| 3. | 8.  |
| 4. | 9.  |
| 5. | 10. |

CANE FRUIT PRODUCTION

| CF1. Have you harvested any [...] during the past cropping season?<br>ASK ABOUT PRODUCTION ACTIVITIES COVERED BY THE SURVEY (SEE ABOVE)<br>YES=1<br>NO=2 | CF2. Is [...] an open field or a greenhouse/ family plot crop?<br>OPEN FIELD=1<br>GREENHOUSE/<br>FAMILY PLOT=2 | CF3. How many years have you grown [...]?<br>IF LESS THAN 1 YEAR WRITE IN 0 | CF4. What is the total land area used to cultivate [...]?<br>OPEN FIELD=<br>HECTARES<br>GREENHOUSE/<br>FAMILY PLOT=<br>SQUARE METERS | CF5. How many months is the cropping season for [...]? | CF6. How many harvests of [...] do you produce over a 12-month period? | CF7. When you harvest [...], what is the unit you use to measure production?<br>KILOGRAMS=1<br>GRAMS=2<br>NUMBER=3<br>BASKETS=4<br>BUSHELS=5<br>TONS=6<br>OTHER=7 | CF8. How much of [...] did you harvest during past cropping season?<br>USE APPROPRIATE UNIT OF MEASURE |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| 1. Strawberry                                                                                                                                            |                                                                                                                |                                                                             |                                                                                                                                      |                                                        |                                                                        |                                                                                                                                                                   |                                                                                                        |
| 2. Raspberry                                                                                                                                             |                                                                                                                |                                                                             |                                                                                                                                      |                                                        |                                                                        |                                                                                                                                                                   |                                                                                                        |
| 3. Blackberry                                                                                                                                            |                                                                                                                |                                                                             |                                                                                                                                      |                                                        |                                                                        |                                                                                                                                                                   |                                                                                                        |
| 4. Current                                                                                                                                               |                                                                                                                |                                                                             |                                                                                                                                      |                                                        |                                                                        |                                                                                                                                                                   |                                                                                                        |
| 5. Gooseberry                                                                                                                                            |                                                                                                                |                                                                             |                                                                                                                                      |                                                        |                                                                        |                                                                                                                                                                   |                                                                                                        |
| 6. Wine Grape                                                                                                                                            |                                                                                                                |                                                                             |                                                                                                                                      |                                                        |                                                                        |                                                                                                                                                                   |                                                                                                        |

|  | CF9. How much of the [...] you harvested during the past cropping | CF10. What TOTAL amount did you get for the [...] that you sold?<br>GEL | CF11. Where did you sell most of [...]? |   | CF12. To whom did you sell most of your [...]? |   | CF13. How much of the [...] you harvested during the past cropping season did your household | CF14. How much of the [...] you harvested during the past cropping season did you use for animals?<br>USE APPROPRIATE UNIT OF MEASURE |
|--|-------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------|---|------------------------------------------------|---|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
|  |                                                                   |                                                                         | OWN FARM                                | 1 | CONSUMER                                       | 1 |                                                                                              |                                                                                                                                       |
|  |                                                                   |                                                                         | MARKET IN COMMUNITY                     | 2 | MIDDLEMAN                                      | 2 |                                                                                              |                                                                                                                                       |
|  |                                                                   |                                                                         | MARKET OUTSIDE COMMUNITY                | 3 | WHOLESALE                                      | 3 |                                                                                              |                                                                                                                                       |
|  |                                                                   |                                                                         |                                         |   |                                                |   |                                                                                              |                                                                                                                                       |

|   | season was sold?<br>USE APPROPRIATE UNIT OF MEASURE |  | SMALL SHOP            | 4 | RETAILER | 4                 | consume?<br>USE APPROPRIATE UNIT OF MEASURE |  |
|---|-----------------------------------------------------|--|-----------------------|---|----------|-------------------|---------------------------------------------|--|
|   |                                                     |  | SUPERMARKET           | 5 | OTHER    | (Specify _____) 5 |                                             |  |
|   |                                                     |  | AGRO-INDUSTRY         | 6 |          |                   |                                             |  |
|   |                                                     |  | OTHER (Specify _____) | 7 |          |                   |                                             |  |
| 1 |                                                     |  |                       |   |          |                   |                                             |  |
| 2 |                                                     |  |                       |   |          |                   |                                             |  |
| 3 |                                                     |  |                       |   |          |                   |                                             |  |
| 4 |                                                     |  |                       |   |          |                   |                                             |  |
| 5 |                                                     |  |                       |   |          |                   |                                             |  |
| 6 |                                                     |  |                       |   |          |                   |                                             |  |

|   | CF15. How much of the [...] you harvested during the past cropping season did you use for seed?<br>USE APPROPRIATE UNIT OF MEASURE | CF16. How much of the [...] you harvested during the past cropping season did you give away as a gift?<br>USE APPROPRIATE UNIT OF MEASURE | CF17. How much of the [...] you harvested during the past cropping season did you lose due to spoilage, disease, animals, weather, and other causes?<br>USE APPROPRIATE UNIT OF MEASURE |
|---|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 |                                                                                                                                    |                                                                                                                                           |                                                                                                                                                                                         |
| 2 |                                                                                                                                    |                                                                                                                                           |                                                                                                                                                                                         |
| 3 |                                                                                                                                    |                                                                                                                                           |                                                                                                                                                                                         |
| 4 |                                                                                                                                    |                                                                                                                                           |                                                                                                                                                                                         |
| 5 |                                                                                                                                    |                                                                                                                                           |                                                                                                                                                                                         |
| 6 |                                                                                                                                    |                                                                                                                                           |                                                                                                                                                                                         |

CF18. How much do you estimate that you spent in total to produce [NAME ALL OF THE CANE FRUITS BEING PRODUCED FROM ABOVE]?

| Cost Item                                                   | GEL |
|-------------------------------------------------------------|-----|
| Land rental                                                 |     |
| Seed                                                        |     |
| Irrigation                                                  |     |
| Fertilizer                                                  |     |
| Pesticide/insecticide                                       |     |
| Herbicide/Fungicide                                         |     |
| Spraying service                                            |     |
| Labor                                                       |     |
| Machine rental (e.g., tractor, rototiller)                  |     |
| Machine maintenance, repair, and parts                      |     |
| Fuel for machines                                           |     |
| Storage                                                     |     |
| Transport                                                   |     |
| Construction (e.g., greenhouses, storage raised beds, etc.) |     |
| Irrigation, watering                                        |     |
| Other (specify)                                             |     |
| Other (specify)                                             |     |

CF19. How many male and female employees worked for you during the past cropping season to produce [NAME ALL OF THE CANE FRUITS BEING PRODUCED FROM ABOVE]? and got payment for that?

|        |  |
|--------|--|
| Male   |  |
| Female |  |

CF20. How many days in total did each employee work during the past cropping season? (LIST UP TO 10 EMPLOYEES)

|    |     |
|----|-----|
| 1. | 6.  |
| 2. | 7.  |
| 3. | 8.  |
| 4. | 9.  |
| 5. | 10. |

CF21. How many hours did each employee work on a typical day? (LIST UP TO 10 EMPLOYEES)

|    |     |
|----|-----|
| 1. | 6.  |
| 2. | 7.  |
| 3. | 8.  |
| 4. | 9.  |
| 5. | 10. |

STONE FRUIT AND HAZEL NUT PRODUCTION

| <p><b>N1.</b> Have you harvested any [...] during the past cropping season?</p> <p>ASK ABOUT PRODUCTION ACTIVITIES COVERED BY THE SURVEY (SEE ABOVE)</p> <p>YES=1<br/>NO=2</p> | <p><b>N2.</b> How many years have you grown [...]?</p> <p>IF LESS THAN 1 YEAR WRITE IN 0</p> | <p><b>N3.</b> What is the total land area used to cultivate [...]?</p> | <p><b>N4.</b> How many months is the cropping season for [...]?</p> | <p><b>N5.</b> How many harvests of [...] do you produce during a 12-month period?</p> | <p><b>N6.</b> How many [...] trees do you current have?</p> | <p><b>N7.</b> How many [...] trees produced fruit during the past cropping season?</p> | <p><b>N8.</b> When you harvest [...], what is the unit you use to measure production?</p> <p>KILOGRAMS=1<br/>GRAMS=2<br/>NUMBER=3<br/>BASKETS=4<br/>BUSHELS=5<br/>TONS=6<br/>OTHER=7</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Apple                                                                                                                                                                       |                                                                                              |                                                                        |                                                                     |                                                                                       |                                                             |                                                                                        |                                                                                                                                                                                          |
| 2. Pear                                                                                                                                                                        |                                                                                              |                                                                        |                                                                     |                                                                                       |                                                             |                                                                                        |                                                                                                                                                                                          |
| 3. Plum                                                                                                                                                                        |                                                                                              |                                                                        |                                                                     |                                                                                       |                                                             |                                                                                        |                                                                                                                                                                                          |
| 4. Cherry                                                                                                                                                                      |                                                                                              |                                                                        |                                                                     |                                                                                       |                                                             |                                                                                        |                                                                                                                                                                                          |
| 5. Hazelnut                                                                                                                                                                    |                                                                                              |                                                                        |                                                                     |                                                                                       |                                                             |                                                                                        |                                                                                                                                                                                          |

|                       | <b>N9.</b> How much of [...] did you harvest during past cropping season?<br>USE APPROPRIATE UNIT OF MEASURE | <b>N10.</b> How much of the [...] you harvested during the past cropping season was sold?<br>USE APPROPRIATE UNIT OF MEASURE | <b>N11.</b> What TOTAL amount did you get for the [...] that you sold?<br>GEL | <b>N12.</b> Where did you sell most of [...]? |   | <b>N13.</b> To whom did you sell most of your [...]? |   | <b>N14.</b> How much of the [...] you harvested during the past cropping season did your household consume?<br>USE APPROPRIATE UNIT OF MEASURE |
|-----------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------|---|------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------|
|                       |                                                                                                              |                                                                                                                              |                                                                               | OWN FARM                                      | 1 | CONSUMER                                             | 1 |                                                                                                                                                |
|                       |                                                                                                              |                                                                                                                              |                                                                               | MARKET IN COMMUNITY                           | 2 | MIDDLEMAN                                            | 2 |                                                                                                                                                |
|                       |                                                                                                              |                                                                                                                              |                                                                               | MARKET OUTSIDE COMMUNITY                      | 3 | WHOLESALE                                            | 3 |                                                                                                                                                |
|                       |                                                                                                              |                                                                                                                              |                                                                               | SMALL SHOP                                    | 4 | RETAILER                                             | 4 |                                                                                                                                                |
|                       |                                                                                                              |                                                                                                                              |                                                                               | SUPERMARKET                                   | 5 | OTHER (Specify _____)                                | 5 |                                                                                                                                                |
|                       |                                                                                                              |                                                                                                                              |                                                                               | AGRO-INDUSTRY                                 | 6 |                                                      |   |                                                                                                                                                |
| OTHER (Specify _____) | 7                                                                                                            |                                                                                                                              |                                                                               |                                               |   |                                                      |   |                                                                                                                                                |
| 1                     |                                                                                                              |                                                                                                                              |                                                                               |                                               |   |                                                      |   |                                                                                                                                                |
| 2                     |                                                                                                              |                                                                                                                              |                                                                               |                                               |   |                                                      |   |                                                                                                                                                |
| 3                     |                                                                                                              |                                                                                                                              |                                                                               |                                               |   |                                                      |   |                                                                                                                                                |
| 4                     |                                                                                                              |                                                                                                                              |                                                                               |                                               |   |                                                      |   |                                                                                                                                                |
| 5                     |                                                                                                              |                                                                                                                              |                                                                               |                                               |   |                                                      |   |                                                                                                                                                |

|   | <b>N15.</b> How much of the [...] you harvested during the past cropping season did you use for animals?<br>USE APPROPRIATE UNIT OF MEASURE | <b>N16.</b> How much of the [...] you harvested during the past cropping season did you use for seed?<br>USE APPROPRIATE UNIT OF MEASURE | <b>N17.</b> How much of the [...] you harvested during the past cropping season did you give away as a gift?<br>USE APPROPRIATE UNIT OF MEASURE | <b>N18.</b> How much of the [...] you harvested during the past cropping season did you lose due to spoilage, disease, animals, weather, and other causes?<br>USE APPROPRIATE UNIT OF MEASURE |
|---|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 |                                                                                                                                             |                                                                                                                                          |                                                                                                                                                 |                                                                                                                                                                                               |
| 2 |                                                                                                                                             |                                                                                                                                          |                                                                                                                                                 |                                                                                                                                                                                               |
| 3 |                                                                                                                                             |                                                                                                                                          |                                                                                                                                                 |                                                                                                                                                                                               |
| 4 |                                                                                                                                             |                                                                                                                                          |                                                                                                                                                 |                                                                                                                                                                                               |
| 5 |                                                                                                                                             |                                                                                                                                          |                                                                                                                                                 |                                                                                                                                                                                               |

**N19.** How much do you estimate that you spent in total to produce [NAME ALL OF THE CROPS BEING PRODUCED FROM ABOVE]? (REMIND THE RESPONDENT WHAT THE FRUITS ARE)

| Cost Item                                  | GEL |
|--------------------------------------------|-----|
| Land rental                                |     |
| Seed                                       |     |
| Irrigation                                 |     |
| Fertilizer                                 |     |
| Pesticide/insecticide                      |     |
| Herbicide/Fungicide                        |     |
| Spraying service                           |     |
| Pruning service                            |     |
| Labor                                      |     |
| Machine rental (e.g., tractor, rototiller) |     |
| Machine maintenance, repair, and parts     |     |
| Fuel for machines                          |     |
| Storage                                    |     |
| Transport                                  |     |
| Irrigation, watering                       |     |
| Construction (storage, sheds, etc.)        |     |
| Other (specify)                            |     |
| Other (specify)                            |     |

**N20.** How many male and female employees worked for you during the past cropping season to produce [NAME ALL OF THE CROPS BEING PRODUCED FROM ABOVE] and got payment for that?

|        |  |
|--------|--|
| Male   |  |
| Female |  |

**N21.** How many days in total did each employee work during the past cropping season? (LIST UP TO 10 EMPLOYEES)

|    |     |
|----|-----|
| 1. | 6.  |
| 2. | 7.  |
| 3. | 8.  |
| 4. | 9.  |
| 5. | 10. |

**N22.** How many hours did each employee work on a typical day? (LIST UP TO 10 EMPLOYEES)

|    |     |
|----|-----|
| 1. | 6.  |
| 2. | 7.  |
| 3. | 8.  |
| 4. | 9.  |
| 5. | 10. |

| BEEKEEPING                                                                                                                                                                |                                                                                          |                                                              |                                                           |                                                                               |                                                                |                                                                                |                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>B1.</b> Have you produced any [...] during the past production season?<br><br>ASK THIS QUESTION FOR ALL PRODUCTS BEFORE GOING ON TO THE NEXT QUESTION<br>YES=1<br>NO=2 | <b>B2.</b> How many years have you produced [...]?<br><br>IF LESS THAN 1 YEAR WRITE IN 0 | <b>B3.</b> How many honeybee colonies do you currently have? | <b>B4.</b> How many honeybee hives do you currently have? | <b>B5.</b> What is the total land area used to produce honey?<br><br>HECTARES | <b>B6.</b> How many months is the production season for [...]? | <b>B7.</b> How many harvests of [...] do you produce during a 12-month period? | <b>B8.</b> When you harvest [...], what is the unit you use to measure production?<br><br>KILOGRAM=1<br>NUMBER=2<br>OTHER=3 |
| 1. Bulk honey                                                                                                                                                             |                                                                                          |                                                              |                                                           |                                                                               |                                                                |                                                                                |                                                                                                                             |
| 2. Retail packaged honey                                                                                                                                                  |                                                                                          |                                                              |                                                           |                                                                               |                                                                |                                                                                |                                                                                                                             |
| 3. Comb honey                                                                                                                                                             |                                                                                          |                                                              |                                                           |                                                                               |                                                                |                                                                                |                                                                                                                             |
| 4. Beeswax                                                                                                                                                                |                                                                                          |                                                              |                                                           |                                                                               |                                                                |                                                                                |                                                                                                                             |
| 5. Packaged bees                                                                                                                                                          |                                                                                          |                                                              |                                                           |                                                                               |                                                                |                                                                                |                                                                                                                             |
| 6. Queens                                                                                                                                                                 |                                                                                          |                                                              |                                                           |                                                                               |                                                                |                                                                                |                                                                                                                             |
| 7. Nucs (young colonies)                                                                                                                                                  |                                                                                          |                                                              |                                                           |                                                                               |                                                                |                                                                                |                                                                                                                             |
| 8. Bee milk/ pollen                                                                                                                                                       |                                                                                          |                                                              |                                                           |                                                                               |                                                                |                                                                                |                                                                                                                             |

|                                |  |  |  |  |  |  |  |  |
|--------------------------------|--|--|--|--|--|--|--|--|
| 9. Candles/<br>wax<br>products |  |  |  |  |  |  |  |  |
|--------------------------------|--|--|--|--|--|--|--|--|

|                       | <b>B9.</b> How much of [...] did you produce during past production season?<br><br>USE APPROPRIATE UNIT OF MEASURE | <b>B10.</b> How much of the [...] you produced during the past production season was sold?<br><br>USE APPROPRIATE UNIT OF MEASURE | <b>B11.</b> What TOTAL amount did you get for the [...] that you sold?<br><br>GEL | <b>B12.</b> Where do you sell most of the [...]?<br>[...] |   | <b>B13.</b> To whom do you sell most of your [...]?<br>[...] |   | <b>B14.</b> How much of the [...] you produced during the past production season did your household consume?<br><br>USE APPROPRIATE UNIT OF MEASURE |
|-----------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------|---|--------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------|
|                       |                                                                                                                    |                                                                                                                                   |                                                                                   | OWN FARM                                                  | 1 | CONSUMER                                                     | 1 |                                                                                                                                                     |
|                       |                                                                                                                    |                                                                                                                                   |                                                                                   | MARKET IN COMMUNITY                                       | 2 | MIDDLEMAN                                                    | 2 |                                                                                                                                                     |
|                       |                                                                                                                    |                                                                                                                                   |                                                                                   | MARKET OUTSIDE COMMUNITY                                  | 3 | WHOLESALE                                                    | 3 |                                                                                                                                                     |
|                       |                                                                                                                    |                                                                                                                                   |                                                                                   | SMALL SHOP                                                | 4 | RETAILER                                                     | 4 |                                                                                                                                                     |
|                       |                                                                                                                    |                                                                                                                                   |                                                                                   | SUPERMARKET                                               | 5 | OTHER (Specify _____)                                        | 5 |                                                                                                                                                     |
| OTHER (Specify _____) | 6                                                                                                                  |                                                                                                                                   |                                                                                   |                                                           |   |                                                              |   |                                                                                                                                                     |
| 1                     |                                                                                                                    |                                                                                                                                   |                                                                                   |                                                           |   |                                                              |   |                                                                                                                                                     |
| 2                     |                                                                                                                    |                                                                                                                                   |                                                                                   |                                                           |   |                                                              |   |                                                                                                                                                     |
| 3                     |                                                                                                                    |                                                                                                                                   |                                                                                   |                                                           |   |                                                              |   |                                                                                                                                                     |
| 4                     |                                                                                                                    |                                                                                                                                   |                                                                                   |                                                           |   |                                                              |   |                                                                                                                                                     |
| 5                     |                                                                                                                    |                                                                                                                                   |                                                                                   |                                                           |   |                                                              |   |                                                                                                                                                     |
| 6                     |                                                                                                                    |                                                                                                                                   |                                                                                   |                                                           |   |                                                              |   |                                                                                                                                                     |
| 7                     |                                                                                                                    |                                                                                                                                   |                                                                                   |                                                           |   |                                                              |   |                                                                                                                                                     |
| 8                     |                                                                                                                    |                                                                                                                                   |                                                                                   |                                                           |   |                                                              |   |                                                                                                                                                     |
| 9                     |                                                                                                                    |                                                                                                                                   |                                                                                   |                                                           |   |                                                              |   |                                                                                                                                                     |

|   | <b>B15.</b> How much of the [...] you produced during the past production season did you use for animals?<br>USE APPROPRIATE UNIT OF MEASURE | <b>B16.</b> How much of the [...] you produced during the past cropping season did you give away as a gift?<br>USE APPROPRIATE UNIT OF MEASURE | <b>B17.</b> How much of the [...] you produced during the past cropping season did you lose due to spoilage, disease, animals, weather, and other causes?<br>USE APPROPRIATE UNIT OF MEASURE |
|---|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 |                                                                                                                                              |                                                                                                                                                |                                                                                                                                                                                              |
| 2 |                                                                                                                                              |                                                                                                                                                |                                                                                                                                                                                              |
| 3 |                                                                                                                                              |                                                                                                                                                |                                                                                                                                                                                              |
| 4 |                                                                                                                                              |                                                                                                                                                |                                                                                                                                                                                              |
| 5 |                                                                                                                                              |                                                                                                                                                |                                                                                                                                                                                              |
| 6 |                                                                                                                                              |                                                                                                                                                |                                                                                                                                                                                              |
| 7 |                                                                                                                                              |                                                                                                                                                |                                                                                                                                                                                              |
| 8 |                                                                                                                                              |                                                                                                                                                |                                                                                                                                                                                              |
| 9 |                                                                                                                                              |                                                                                                                                                |                                                                                                                                                                                              |

**B18.** What were your production costs during the last production season?

| Cost Item                                  | Cost (GEL) |
|--------------------------------------------|------------|
| Land rental                                |            |
| Packaged bees/queens                       |            |
| Supplemental feed                          |            |
| Pesticides, antibiotics                    |            |
| Construction (hives, storage, sheds, etc.) |            |
| Transport                                  |            |
| Freight shipping                           |            |
| Honey extraction                           |            |
| Product packaging and marketing            |            |
| Maintenance and repair                     |            |
| Labor                                      |            |
| Other (specify)                            |            |

**B19.** How many male and female employees worked for you during the past production season and got payment for that?

|        |  |
|--------|--|
| Male   |  |
| Female |  |

**B20.** How many days in total did each employee work during the past production season? (LIST UP TO 10 EMPLOYEES)

|    |     |
|----|-----|
| 1. | 6.  |
| 2. | 7.  |
| 3. | 8.  |
| 4. | 9.  |
| 5. | 10. |

**B21.** How many hours did each employee work on a typical day? (LIST UP TO 10 EMPLOYEES)

|    |     |
|----|-----|
| 1. | 6.  |
| 2. | 7.  |
| 3. | 8.  |
| 4. | 9.  |
| 5. | 10. |

LIVESTOCK AND SMALL ANIMALS

| <p><b>L1.</b> During the last 12 months, has any member of your family produced [...] for sale?</p> <p>ASK ABOUT PRODUCTION ACTIVITIES COVERED BY THE SURVEY (SEE ABOVE)</p> <p>YES=1<br/>NO=2</p> | <p><b>L2.</b> How many [...] does your household currently own?</p> | <p><b>L3.</b> How many [...] (live animals) did you purchase over the last 12 months?</p> | <p><b>L4.</b> How many live births of [...] were there during the last 12 months?</p> | <p><b>L5.</b> How many [...] died during the last 12 months?</p> | <p><b>L6.</b> When you sell [...], what is the unit you use to measure sales amount?</p> <p>KILOGRAM=1<br/>NUMBER=2<br/>OTHER=3</p> | <p><b>L7.</b> How much of [...] did you sell during past 12 months?</p> <p>USE APPROPRIATE UNIT OF MEASURE</p> | <p><b>L8.</b> How much TOTAL did your household receive for the sale of all these [...] during the last 12 months?</p> <p>GEL</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 1. Rabbits                                                                                                                                                                                         |                                                                     |                                                                                           |                                                                                       |                                                                  |                                                                                                                                     |                                                                                                                |                                                                                                                                   |
| 2. Poultry                                                                                                                                                                                         |                                                                     |                                                                                           |                                                                                       |                                                                  |                                                                                                                                     |                                                                                                                |                                                                                                                                   |

|   | <b>L9.</b> Where do you sell most of the [...]? | <b>L10.</b> To whom do you sell most of your [...]? | <b>L11.</b> How much of [...] did your household consume during the past production season?<br><br>USE APPROPRIATE UNIT OF MEASURE | <b>L12.</b> How much of [...] did your household give away as a gift during the past production season?<br><br>USE APPROPRIATE UNIT OF MEASURE |
|---|-------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
|   | OWN FARM 1                                      | CONSUMER 1                                          |                                                                                                                                    |                                                                                                                                                |
|   | MARKET IN COMMUNITY 2                           | MIDDLEMAN 2                                         |                                                                                                                                    |                                                                                                                                                |
|   | MARKET OUTSIDE COMMUNITY 3                      | WHOLESALE 3                                         |                                                                                                                                    |                                                                                                                                                |
|   | SMALL SHOP 4                                    | RETAILER 4                                          |                                                                                                                                    |                                                                                                                                                |
|   | SUPERMARKET 5                                   | OTHER (Specify _____) 5                             |                                                                                                                                    |                                                                                                                                                |
|   | OTHER (Specify _____) 6                         |                                                     |                                                                                                                                    |                                                                                                                                                |
| 1 |                                                 |                                                     |                                                                                                                                    |                                                                                                                                                |
| 2 |                                                 |                                                     |                                                                                                                                    |                                                                                                                                                |

**L13.** What were your production costs during the last 12 months?

| Cost Item                                                | Cost (GEL) |
|----------------------------------------------------------|------------|
| Feed                                                     |            |
| Construction of shelter (e.g., huts, coops, sheds, etc.) |            |
| Tools & equipment                                        |            |
| Transport                                                |            |
| Purchase live animals                                    |            |
| Storage                                                  |            |
| Medicine & medical care                                  |            |
| Land rental                                              |            |
| Other (Specify)                                          |            |

**L14.** How many male and female employees worked for you during the last 12 months and got payment for that?

|        |  |
|--------|--|
| Male   |  |
| Female |  |

How many days in total did each employee work during the last 12 months? (LIST UP TO 10 EMPLOYEES)

|    |     |
|----|-----|
| 1. | 6.  |
| 2. | 7.  |
| 3. | 8.  |
| 4. | 9.  |
| 5. | 10. |

How many hours did each employee work on a typical day? (LIST UP TO 10 EMPLOYEES)

|    |     |
|----|-----|
| 1. | 6.  |
| 2. | 7.  |
| 3. | 8.  |
| 4. | 9.  |
| 5. | 10. |

ADOPTION OF NEW TECHNOLOGIES AND PRACTICES

**TP1.** Please tell me which of the following production practices or technologies you implemented during the most recent cropping season?

| Practices and Technologies<br>READ OPTIONS                    | a) Adopted practice or technology? | b) Area Covered by Practice or Technology | c) Effectiveness of Practice or Technology<br>READ OPTIONS | d) Will use practice or technology in next cropping season? | e. If No, what is the primary reason why not? |
|---------------------------------------------------------------|------------------------------------|-------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|
| Mechanical and Physical                                       |                                    |                                           |                                                            |                                                             |                                               |
| <b>TP1.1.</b> New or improved land preparation practices      |                                    |                                           |                                                            |                                                             |                                               |
| <b>TP1.2.</b> New or improved production practices            |                                    |                                           |                                                            |                                                             |                                               |
| <b>TP1.3.</b> New or improved post-harvest handling practices |                                    |                                           |                                                            |                                                             |                                               |
| <b>TP1.4.</b> New or improved processing practices            |                                    |                                           |                                                            |                                                             |                                               |
| <b>TP1.5.</b> New or improved energy technologies             |                                    |                                           |                                                            |                                                             |                                               |
| Biological                                                    |                                    |                                           |                                                            |                                                             |                                               |
| <b>TP1.6.</b> New or improved livestock breeds                |                                    |                                           |                                                            |                                                             |                                               |
| <b>TP1.7.</b> New or improved livestock health practices      |                                    |                                           |                                                            |                                                             |                                               |
| <b>TP1.8.</b> New or improved plant varieties                 |                                    |                                           |                                                            |                                                             |                                               |
| <b>TP1.9.</b> New or improved soil management practices       |                                    |                                           |                                                            |                                                             |                                               |
| Chemical                                                      |                                    |                                           |                                                            |                                                             |                                               |
| <b>TP1.10.</b> Sustainable fertilizer, pesticide, or          |                                    |                                           |                                                            |                                                             |                                               |

|                                                                  |               |          |                                                                                        |               |                                                                                                                                                                                      |
|------------------------------------------------------------------|---------------|----------|----------------------------------------------------------------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| insecticide practices                                            |               |          |                                                                                        |               |                                                                                                                                                                                      |
| <b>TP1.11.</b> Soil or water testing                             |               |          |                                                                                        |               |                                                                                                                                                                                      |
| <b>TP1.12.</b> pH balancing applications (lime, nitrates, etc)   |               |          |                                                                                        |               |                                                                                                                                                                                      |
| <b>TP1.13.</b> Fertigation                                       |               |          |                                                                                        |               |                                                                                                                                                                                      |
| Management and Cultural Practices                                |               |          |                                                                                        |               |                                                                                                                                                                                      |
| <b>TP1.14.</b> Sustainable water management practices            |               |          |                                                                                        |               |                                                                                                                                                                                      |
| <b>TP1.15.</b> Sustainable land management practices             |               |          |                                                                                        |               |                                                                                                                                                                                      |
| <b>TP1.16.</b> Sustainable production practices                  |               |          |                                                                                        |               |                                                                                                                                                                                      |
| <b>TP1.17.</b> Improved marketing practices                      |               |          |                                                                                        |               |                                                                                                                                                                                      |
| New or improved information technologies                         |               |          |                                                                                        |               |                                                                                                                                                                                      |
| <b>TP1.18.</b> Increased use of climate information technologies |               |          |                                                                                        |               |                                                                                                                                                                                      |
| <b>TP1.19.</b> Increased use of energy efficiency technologies   |               |          |                                                                                        |               |                                                                                                                                                                                      |
|                                                                  | 1=Yes<br>2=No | HECTARES | 1=Very ineffective<br>2=Ineffective<br>3=No opinion<br>4=Effective<br>5=Very effective | 1=Yes<br>2=No | 1=Ineffective<br>2=Too much work<br>3=Too expensive<br>4=Don't have necessary equipment<br>5=Haven't heard about it<br>6=Don't know how<br>7=Others advised me against it<br>8=Other |

#### EXTENSION SERVICES

1. Did you receive any agricultural extension assistance during the last 12 months?

|     |   |
|-----|---|
| Yes | 1 |
| No  | 2 |

2. Please tell me about the extension assistance you received.

| <p><b>EX2.1.</b> What type of extension assistance did you receive?<br/>(LIST UP TO 3 TYPES OF ASSISTANCE)</p>                                                                                                                                                                                                                                                                                                              | <p><b>EX2.2.</b> What was the primary source of the assistance?</p>                                                                                                                                                                       | <p><b>EX2.3.</b> How many training sessions in total did you receive during the last 12 months?</p> | <p><b>EX2.4.</b> How would you rate the usefulness of the assistance you received?<br/>READ OPTIONS</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                           |                                                                                                     |                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                           |                                                                                                     |                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                           |                                                                                                     |                                                                                                         |
| <p>1-Crop selection/crop rotation<br/>2-Improved seeds/ improved crop varieties<br/>3-Pest management<br/>4-Soil/land management<br/>5-Input usage (e.g. fertilizer, pesticide, insecticide)<br/>6-Production practices<br/>7-Harvesting practices<br/>8-Post-harvest practices<br/>9-Irrigation/water management<br/>10-Livestock Feeding<br/>11-Veterinarian/livestock advice<br/>12-Marketing practices<br/>13-Other</p> | <p>1-USAID/NEO/AIC/ CIDA/ CHCA<br/>2-NGO/development organization<br/>3-Processors<br/>4-Suppliers (shops selling feed, equipment, fertilizers and etc.)<br/>5-State organizations<br/>6-Farmer associations/cooperatives<br/>7-Other</p> |                                                                                                     | <p>1-Not useful<br/>2-Useful to some degree<br/>3-Useful<br/>4-Very useful</p>                          |

4. Enterprise Production

ENTERPRISE PRODUCTION

| <p><b>BD1.</b> Have you operated any of the following enterprises during the past 12 months?<br/>ASK ABOUT PRODUCTION ACTIVITIES COVERED BY THE SURVEY (SEE ABOVE)</p> <p>YES=1<br/>NO=2</p> | <p><b>BD2.</b> How many years have you operated [...]?<br/>IF LESS THAN 1 YEAR WRITE IN 0</p> | <p><b>BD3.</b> Where is this enterprise operated?<br/>1=Home Inside the residence<br/>2=Home Outside the residence<br/>3=Industrial site<br/>4=Traditional market<br/>5=Commercial district shop<br/>6=Roadside<br/>7=Other fixed place<br/>8=Mobile</p> | <p><b>BD4.</b> What was the main source of money for setting up this enterprise?<br/>1=Didn't need any money<br/>2=Own Savings<br/>3=Friends/family<br/>4=Commercial/Development bank<br/>5=Microfinance institution<br/>6=Local group<br/>7=NGO<br/>8=Grant<br/>9=Other (Specify)</p> | <p><b>BD5.</b> In the past 12 months, how many months did this enterprise operate?</p> | <p><b>BD6.</b> What were the average monthly gross revenues during the months of operation?</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 1. Tailoring                                                                                                                                                                                 |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |
| 2. Hairdressing                                                                                                                                                                              |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |
| 3. Cobbler                                                                                                                                                                                   |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |
| 4. Car repair/ wash                                                                                                                                                                          |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |
| 5. Carpentry/ woodworking                                                                                                                                                                    |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |
| 6. Food processing/catering                                                                                                                                                                  |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |
| 7. Stone & ceramic processing                                                                                                                                                                |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |
| 8. Retail shop/ sales                                                                                                                                                                        |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |
| 9. Guesthouse                                                                                                                                                                                |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |
| 10. Bakery & confection                                                                                                                                                                      |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |
| 11. Cafe                                                                                                                                                                                     |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |
| 12. Souvenir/handicrafts                                                                                                                                                                     |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |
| 13. Welding                                                                                                                                                                                  |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |
| 14. Plumbing                                                                                                                                                                                 |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |
| 15. Event hall (funerals, weddings, etc.)                                                                                                                                                    |                                                                                               |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                        |                                                                                                 |

|    | <b>BD7.</b> What was the average expenditure on raw materials during a typical month of operation? | <b>BD8.</b> What were other operating expenses such as fuel, kerosene, electricity, etc. during a typical month of operation? (Does not include labor) | <b>BD9.</b> What were labor costs during a typical month of operation? | <b>BD10.</b> How many people did this enterprise hire on wage or salary during a typical month of operation? |  | <b>BD11.</b> How many days did these people work in a typical month on average? |  | <b>BD12.</b> How many hours per day did these people work during a typical day on average? |  |
|----|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------|--|
|    |                                                                                                    |                                                                                                                                                        |                                                                        | MEN                                                                                                          |  | MEN                                                                             |  | MEN                                                                                        |  |
|    |                                                                                                    |                                                                                                                                                        |                                                                        | WOMEN                                                                                                        |  | WOMEN                                                                           |  | WOMEN                                                                                      |  |
| 1  |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |
| 2  |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |
| 3  |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |
| 4  |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |
| 5  |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |
| 6  |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |
| 7  |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |
| 8  |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |
| 9  |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |
| 10 |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |
| 11 |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |
| 12 |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |
| 13 |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |
| 14 |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |
| 15 |                                                                                                    |                                                                                                                                                        |                                                                        |                                                                                                              |  |                                                                                 |  |                                                                                            |  |

**BUSINESS DEVELOPMENT SERVICES**

**BD1.** Did you receive any business development services during the last 12 months?

|     |  |
|-----|--|
| Yes |  |
| No  |  |

Please tell me about the business development services you received.

| <b>BD2.</b> What type of assistance was it?<br>(LIST UP TO 3 TYPES OF ASSISTANCE)                                                                                                                                                                                                                                                                                                                                                                   | <b>BD3.</b> What was the source of the assistance?                                                                                                                                                                                                    | <b>BD4.</b> How many training sessions in total did you receive during the last 12 months? | <b>BD5.</b> How would you rate the usefulness of the assistance you received?<br>READ OPTIONS |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                       |                                                                                            |                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                       |                                                                                            |                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                       |                                                                                            |                                                                                               |
| 1-Financial management/ accounting<br>2-Marketing (promotion, packaging, signage, display, advertising, etc.)<br>3-Business plan review and preparation<br>4-Loan application<br>Financial literacy/ credit counselling<br>5-Mentoring<br>6-Record keeping/ management information system<br>7-Technical services (internet, website, social media, etc.)<br>8-Production methods/ technologies<br>9-Networking<br>10-Customer services<br>11-Other | 1-USAID/NEO/AIC/ CIDA/ CHCA<br>2-NGO/development organization<br>3-Processors<br>4-Suppliers (shops selling feed, equipment, fertilizers and etc.)<br>5-State organizations<br>7-Farmer associations/ cooperatives<br>7-Private consultant<br>8-Other |                                                                                            | 1-Not useful<br>2-Useful to some degree<br>3-Useful<br>4-Very useful                          |

5. Access to Credit

**AC1.** Did you or someone in your household try to obtain a loan over the last 12 months for agricultural production or for a non-agricultural business activity?

0 = No |\_\_|

1 = Yes |\_\_|

**AC2.** If No, why not? MULTIPLE ANSWERS

|                                      |    |
|--------------------------------------|----|
| Don't know how to apply              | 1  |
| Lenders are not located close by     | 2  |
| Interest rates are too high          | 3  |
| Collateral requirements are too high | 4  |
| Don't meet the requirements          | 5  |
| Application procedures too complex   | 6  |
| Afraid that won't be able to repay   | 7  |
| Don't want to have debt              | 8  |
| Problems with a previous debt        | 9  |
| Other (specify) _____                | 10 |

How many loans did you apply for? \_\_\_\_\_

**AC3.** Please tell me about each of loans you applied for and what the outcome was (up to 3 loans)

| No | <b>AC4.</b> To whom did you apply?                                                                                                                                                                                                                                                   | <b>AC5.</b> Did you get the loan? | <b>AC6.</b> If you did not get the loan, what was the primary reason for refusal?                                                                                                                                                                         | <b>AC7.</b> What is the length of the loan?<br>(Months) | <b>AC8.</b> What is the interest rate? | <b>AC9.</b> What is the amount of your loan payment? |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------|------------------------------------------------------|
| 1  |                                                                                                                                                                                                                                                                                      |                                   |                                                                                                                                                                                                                                                           |                                                         |                                        |                                                      |
| 2  |                                                                                                                                                                                                                                                                                      |                                   |                                                                                                                                                                                                                                                           |                                                         |                                        |                                                      |
| 3  |                                                                                                                                                                                                                                                                                      |                                   |                                                                                                                                                                                                                                                           |                                                         |                                        |                                                      |
|    | 1 = Commercial/development bank<br>2 = Microfinance institution<br>3 = Local shop/supplier that allows you to take goods/services on credit<br>4 = Buyer of products who gives you cash in advance<br>5 = Family member or friend<br>6 = Moneylender<br>7 = Other (specify)<br>_____ | 1 = Yes<br>2 = No                 | 1 = Incomplete application<br>2 = Poor quality of proposal<br>3 = Insufficient income<br>4 = Problem with previous loan<br>5 = Insufficient collateral<br>6 = Location too remote<br>7 = No credit history<br>8 = Unknown<br>9 = Other (specify)<br>_____ |                                                         |                                        |                                                      |

| No | <b>AC10.</b> How often do you make payments on the loan?                                                                                             | <b>AC11.</b> Were you required to provide collateral for the loan? | <b>AC12.</b> What did you use as collateral?                                                                                                    | <b>AC13.</b> What was the primary purpose that you used the loan for?                                                                                                                                                                                                                                                               |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  |                                                                                                                                                      |                                                                    |                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                     |
| 2  |                                                                                                                                                      |                                                                    |                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                     |
| 3  |                                                                                                                                                      |                                                                    |                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                     |
|    | 1 = Every week<br>2 = Every month<br>2 = Every other month<br>3 = Every 3 months<br>4 = Every 6 months<br>5 = Every 12 months<br>6 = Other (specify) | 1 = Yes<br>2 = No                                                  | 1 = Land<br>2 = House/Residence<br>3 = Vehicle/equipment<br>4 = Gold/jewelry/ valuable stones<br>5 = Other liquid assets<br>6 = Other (specify) | 1 = Purchase machinery & equipment<br>2 = Purchase production inputs/ working capital<br>2 = Purchase land<br>3 = Purchase livestock<br>4 = Purchase/ invest in new production method or technology<br>5 = Construct or rehabilitate work place<br>6 = Construct or rehabilitate home<br>7 = Purchase consumer goods<br>8 = Other?? |

## 9.4 Annex 4: Baseline 1.2 (NEO Project Components 2, 3) Vocational Education Survey Instrument

**FIRST, MAKE SURE YOU HAVE THE RIGHT RESPONDENT. THE ENUMERATOR MUST INTERVIEW THE PERSON WHO PARTICIPATED IN THE NEO SUPPORTED VOCATIONAL EDUCATION PROGRAM.**

**Introduction:** “My name is.....We’re interviewing people here in [name of village] in order to find out about their income generation activities as part of an assessment of the USAID-funded New Economic Opportunities project. The information obtained will be used to improve project services in the future. **All answers will be seen only by the research team and will be kept fully confidential.**

Always **politely ask the interviewee for permission** to interview him/her. Only after they have consented to be interviewed should you begin to ask questions.

Questionnaire Identification Number |\_\_|\_\_|\_\_|\_\_|\_\_|

Team Code |\_\_|\_\_|

### Municipality

|             |    |
|-------------|----|
| Gori        | 1  |
| Kareli      | 2  |
| Khashuri    | 3  |
| Dusheti     | 4  |
| Kazbegi     | 5  |
| Zugudi      | 6  |
| Tsalenjikha | 7  |
| Oni         | 8  |
| Tsageri     | 9  |
| Lentekhi    | 10 |

### Name of Settlement (INDICATE NAME AND CODE)

Sakrebulo \_\_\_\_\_ Code

Village \_\_\_\_\_ Code

### Respondent's status:

|              |   |
|--------------|---|
| Local        | 1 |
| IDP/ Refugee | 2 |

Household Code |\_\_|\_\_|\_\_|\_\_|\_\_|

Respondent Code |\_\_|\_\_|\_\_|\_\_|\_\_|

Treatment or Control Village |\_\_|\_\_|\_

|           |   |
|-----------|---|
| Treatment | 1 |
| Control   | 2 |



**PLEASE, USE FOLLOWING CODES**

DON'T KNOW – 99

NOT APPLICABLE – 88

REFUSED TO ANSWER - 77

1. Household Demographics  
**Info about Household members**

| No. | H1. Name | H2. Age | H3. Gender | H4. Relation to Head of Household | H5. Marital Status | H6. Ethnicity | H7. Brings Income | H8. Source of Income | H9. Most Important Sources of Household Income | H10. Highest Level of Education Completed |
|-----|----------|---------|------------|-----------------------------------|--------------------|---------------|-------------------|----------------------|------------------------------------------------|-------------------------------------------|
| 1   |          |         |            |                                   |                    |               |                   |                      |                                                |                                           |
| 2   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 3   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 4   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 5   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 6   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 7   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 8   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 9   |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |
| 10  |          |         |            |                                   |                    |               |                   |                      |                                                | NA                                        |

|  |  |                 |                    |                                                                                                                                                                                                            |                                                                               |                                                                                                                  |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                       |                                                                                                                                                                                                                                                                                          |
|--|--|-----------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | Completed years | 1-Male<br>2-Female | 1-Head of household<br>2-Spouse<br>3-Son/Daughter<br>4-Mother/Father<br>5-Son-in-law, brother-in-law, daughter-in-law, sister-in-law<br>6-Grandson/ Grand daughter<br>7-Relative<br>8-Other<br>9-No answer | 1- Single (never married)<br>2- Married<br>3- Divorced/ separated<br>4- Widow | 1-Georgian<br>2-Armenian<br>3-Russian<br>4-Azeri<br>5-Greek<br>6-Kurdish<br>7-Ossetian<br>8-Abkhazian<br>9-Other | 1-Yes<br>2-No | 1-Self employed in farming--livestock and agriculture<br>2-Self employed in own business or professional activity unrelated to farming<br>3-Intermittently employed or works from time to time<br>4-Permanently employed—state or public sector<br>5-Permanently employed-private sector<br>6-Unemployed—seeking employment in the last month<br>7-Unemployed—not seeking employment in past month<br>8—Pensioner<br>9—Student<br>10-Unfit or of limited fitness for work<br>11-Other<br><br>Note: If household member has more than one source of income, list the most important source for that person. | 1-Most important<br>2-Second most important<br>3-Third most important | 1 - Illiterate<br>2 - Elementary (1-4 classes)<br>3 - Incomplete Secondary (1-9/8 classes)<br>4 - Complete Secondary (general)<br>5 - Complete Secondary (specialized)<br>6 - Incomplete higher<br>7 - Higher (Institute, University)<br>8 - Degree/ Post-graduated (Candidate, MA, PhD) |
|--|--|-----------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 2. Household Economic Conditions

### E1. How would you assess the financial conditions of your HH regarding income?

|                                                                     |   |
|---------------------------------------------------------------------|---|
|                                                                     |   |
| Good –we can freely spend money                                     | 5 |
| Medium–we can easily meet our daily financial needs                 | 4 |
| Satisfactory –we can somewhat meet our daily requirements           | 3 |
| Bad –income (harvested goods) are only enough for consuming as food | 2 |
| Very bad – we can't even ensure minimum food for consumption        | 1 |

### E2. According to your property status (residence, land, housing, and etc.) to which category among those listed below does your household belong?

|                       |   |
|-----------------------|---|
|                       |   |
| Rich                  | 5 |
| Wealthy               | 4 |
| Middle class          | 3 |
| Poor                  | 2 |
| Very poor (miserable) | 1 |

### E3. Do you own the following durable goods in working condition?

| Durable Good                           | a) Own |    | b) Number | c) Purchased or Gifted |        |      |
|----------------------------------------|--------|----|-----------|------------------------|--------|------|
|                                        | Yes    | No |           | Purchased              | Gifted | Both |
| 1. Color TV set                        | 1      | 2  |           | 1                      | 2      | 3    |
| 2. Refrigerator                        | 1      | 2  |           | 1                      | 2      | 3    |
| 3. Automatic washing machine           | 1      | 2  |           | 1                      | 2      | 3    |
| 4. Car                                 | 1      | 2  |           | 1                      | 2      | 3    |
| 5. DVD player                          | 1      | 2  |           | 1                      | 2      | 3    |
| 6. Personal computer, including laptop | 1      | 2  |           | 1                      | 2      | 3    |
| 7. Air conditioner                     | 1      | 2  |           | 1                      | 2      | 3    |
| 8. Vacuum cleaner                      | 1      | 2  |           | 1                      | 2      | 3    |
| 9. Satellite dish                      | 1      | 2  |           | 1                      | 2      | 3    |
| 10. Independent heating system         | 1      | 2  |           | 1                      | 2      | 3    |

### E4. Do you own the following agricultural assets in working condition?

| Durable Good        | d) Own |    | e) Number | f) Purchased or Gifted |        |      |
|---------------------|--------|----|-----------|------------------------|--------|------|
|                     | Yes    | No |           | Purchased              | Gifted | Both |
| Tractor             | 1      | 2  |           | 1                      | 2      | 3    |
| Animal drawn plough | 1      | 2  |           | 1                      | 2      | 3    |
| Mechanical plough   | 1      | 2  |           | 1                      | 2      | 3    |
| Wheelbarrows        | 1      | 2  |           | 1                      | 2      | 3    |

|                            |   |   |  |   |   |   |
|----------------------------|---|---|--|---|---|---|
| Trailer                    | 1 | 2 |  | 1 | 2 | 3 |
| Motorized thresher         | 1 | 2 |  | 1 | 2 | 3 |
| Hand thresher              | 1 | 2 |  | 1 | 2 | 3 |
| Mechanical water pump      | 1 | 2 |  | 1 | 2 | 3 |
| Hand water pump            | 1 | 2 |  | 1 | 2 | 3 |
| Mill                       |   |   |  |   |   |   |
| Motorized insecticide pump |   |   |  |   |   |   |
| Greenhouse                 |   |   |  |   |   |   |

**E5. In the past 12 months, has your household . . . ?** HOUSEHOLD EXPENSES ARE THE DAY-TO-DAY NEEDS OF THE HOUSEHOLD, INCLUDING FOOD, HOUSING, HEATING, COOKING FUELD, CLOTHING, SCHOOLING, MEDICAL CARE, ETC.

|                                                                                                                     | Yes | No |
|---------------------------------------------------------------------------------------------------------------------|-----|----|
| 1. Saved money                                                                                                      | 1   | 2  |
| 2. Just got by                                                                                                      | 1   | 2  |
| 3. Spent savings to pay household expenses                                                                          | 1   | 2  |
| 4. Borrowed money to pay household expenses                                                                         | 1   | 2  |
| 5. Sold off household assets to pay household expenses (TV set, DVD player, furniture, clothes, jewelry, etc.)      | 1   | 2  |
| 6. Sold off productive assets to pay household expenses (livestock, farming implements, equipment, machinery, etc.) | 1   | 2  |

**E6. According to your assessment, how has the financial condition of your household changed in the last 12 months?**

|                        |   |
|------------------------|---|
|                        |   |
| Significantly worsened | 1 |
| Slightly worsened      | 2 |
| Remained the same      | 3 |
| Slightly improved      | 4 |
| Significantly improved | 5 |

**E7. According to your assessment, how will the financial condition of your household change over the next 12 months?**

|                            |   |
|----------------------------|---|
|                            |   |
| Will significantly worsen  | 1 |
| Will slightly worsen       | 2 |
| Will remain the same       | 3 |
| Will slightly improve      | 4 |
| Will significantly improve | 5 |

**E8. Over the past year, how often, if ever, has your household had to limit the consumption of the following due to financial difficulties?**

|                                    | Never | Just Once or<br>Twice | Several<br>Times | Many Times | Always |
|------------------------------------|-------|-----------------------|------------------|------------|--------|
| 1. Bread, khomi, pasta             | 5     | 4                     | 3                | 2          | 1      |
| 2. Butter, milk, cheese            | 5     | 4                     | 3                | 2          | 1      |
| 3. Oil                             | 5     | 4                     | 3                | 2          | 1      |
| 4. Meat, chicken, or fish          | 5     | 4                     | 3                | 2          | 1      |
| 5. Fruits, vegetables              | 5     | 4                     | 3                | 2          | 1      |
| 6. Potatoes                        | 5     | 4                     | 3                | 2          | 1      |
| 7. Fuel for cooking                | 5     | 4                     | 3                | 2          | 1      |
| 8. Electricity or fuel for heating | 5     | 4                     | 3                | 2          | 1      |
| 9. Medicines or medical treatment  | 5     | 4                     | 3                | 2          | 1      |

**E9. In the past [4 weeks/30 days], was there ever no food to eat of any kind in your house because of lack of resources to get food?**

|     |   |                     |
|-----|---|---------------------|
| no  | 0 | SKIP QUESTIONS E11) |
| Yes | 1 | CONTINIUE           |

**E10. How often did this happen in the past [4 weeks/30 days]?**

|                            |   |
|----------------------------|---|
| Rarely(1–2 times)          | 1 |
| Sometimes(3–10 times)      | 2 |
| Often (more than 10 times) | 3 |
|                            |   |

**E11. In the past [4 weeks/30 days], did you or any household member go to sleep at night hungry because there was not enough food?**

|     |   |                     |
|-----|---|---------------------|
| no  | 0 | SKIP QUESTIONS E13) |
| Yes | 1 | CONTINIUE           |

**E12. How often did this happen in the past [4 weeks/30 days]?**

|                            |   |
|----------------------------|---|
| Rarely(1–2 times)          | 1 |
| Sometimes(3–10 times)      | 2 |
| Often (more than 10 times) | 3 |
|                            |   |

**E13. In the past [4 weeks/30 days], did you or any household member go a whole day and night without eating anything at all because there was not enough food?**

|     |   |                    |
|-----|---|--------------------|
| no  | 0 | SKIP QUESTIONS E15 |
| Yes | 1 | CONTINIUE          |

**E14. How often did this happen in the past [4 weeks/30 days]?**

|                            |   |
|----------------------------|---|
| Rarely(1–2 times)          | 1 |
| Sometimes(3–10 times)      | 2 |
| Often (more than 10 times) | 3 |
|                            |   |

**E15. Has your household applied for governmental social assistance in the last 12 months?**

|     |   |                    |
|-----|---|--------------------|
| Yes | 1 | SKIP QUESTIONS E17 |
| No  | 2 | CONTINIUE          |

**E16. If you haven't applied, what was the reason for not applying for governmental social assistance?**

|                                                                    |   |
|--------------------------------------------------------------------|---|
|                                                                    |   |
| Because I don't think that I'm poor                                | 1 |
| Maybe I'm in shortage, but others experience more severe shortages | 2 |
| I didn't have hope of receiving social assistance                  | 3 |
| I don't trust this system                                          | 4 |
| Other (describe) _____                                             |   |

**E17. Was your household granted with social assistance by the government during the last 12 months?**

|                                      |   |                   |
|--------------------------------------|---|-------------------|
| Yes – during the whole year          | 1 | CONTINIUE         |
| Yes – during some period of the year | 2 |                   |
| No                                   | 3 | SKIP QUESTIONS 20 |

**E18. If yes, what amount in GEL did your household receive from social benefits over the last 12 months? (RECORD THE AMOUNT IN GEL)**

Write in \_\_\_\_\_ GEL

**E19. In your opinion, how important is social assistance by the government for you?**

|                  |              |
|------------------|--------------|
|                  | READ OPTIONS |
| Very important   | 4            |
| Important        | 3            |
| Unimportant      | 2            |
| Very unimportant | 1            |

**E20. Was your HH or any HH member included in the government-run healthcare insurance program in the last 12 months?**

|     |   |                   |
|-----|---|-------------------|
| Yes | 1 | CONTINUE          |
| No  | 2 | SKIP QUESTION E22 |

**E21. In your opinion how important is it for you to participate in the government-run healthcare insurance program?**

|                  | READ OPTIONS |
|------------------|--------------|
| Very important   | 4            |
| Important        | 3            |
| Unimportant      | 2            |
| Very unimportant | 1            |

NOW, I WOULD LIKE TO KNOW MORE ABOUT THE CONSUMPTION OF THE WHOLE HOUSEHOLD FOR DIFFERENT ITEMS. PLEASE GIVE THE ESTIMATED AMOUNTS FOR THE CONSUMPTION FOR THE ENTIRE HOUSEHOLD.

**E22. Food, Beverage, and Tobacco**

Over the past **7 days** approximately how much have you spent for each of the following items?

|                                                                                       | a) Purchased (GEL) | b) Home Produced (GEL) | c) Reserves (GEL) | d) Received as Gift (GEL) |
|---------------------------------------------------------------------------------------|--------------------|------------------------|-------------------|---------------------------|
| <b>E22.1.</b> Food (meat, vegetables, fruits, dairy, grains, starches, etc.)          |                    |                        |                   |                           |
| <b>E22.2.</b> Non-alcoholic beverages (mineral water, juice, soda, tea, coffee, etc.) |                    |                        |                   |                           |
| <b>E22.3.</b> Alcoholic beverages and tobacco                                         |                    |                        |                   |                           |
| <b>E22.4.</b> Salt, sugar, honey, sauces, condiments                                  |                    |                        |                   |                           |

**E23. Non-Durable Goods and Frequently Purchased Services**

Over the **past 30 days**, approximately, how much have you spent for each of the following items?

|                                                                                                   | a) Purchased (GEL) | b) Received as Gift, Including vouchers (GEL) |
|---------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------|
| <b>E23.1.</b> Fuel and electricity for the household                                              |                    |                                               |
| <b>E23.2.</b> Transport and communication (tires, tubes, taxi/bus fares, benzene and diesel fuel) |                    |                                               |
| <b>E23.3.</b> Communication (mobile phone, mobile phone credit, internet service)                 |                    |                                               |
| <b>E23.4.</b> Cleaning and personal hygiene (washing powder, soap, shampoo, detergents, etc.)     |                    |                                               |
| <b>E23.5.</b> Restaurants and hotels                                                              |                    |                                               |
| <b>E23.6.</b> Culture and recreation                                                              |                    |                                               |
| <b>E23.7.</b> Savings                                                                             |                    |                                               |
| <b>E23.8.</b> Loans to family, friends, others                                                    |                    |                                               |

|                                                   |  |  |
|---------------------------------------------------|--|--|
| <b>E23.9.</b> Transfer to family, friends, others |  |  |
|---------------------------------------------------|--|--|

**E24. Semi-Durable Goods and Durable Goods and Services**

Over the past 12 months, approximately, how much have you spent for each of the following items?

|                                                                                                                                                      | a) Purchased (GEL) | b) Received as Gift (GEL) |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------|
| 1. Clothing and Footwear                                                                                                                             |                    |                           |
| 2. Household goods (furniture, radio, bicycle, phone, refrigerator, washing machine, air conditioner, satellite dish, other appliances)              |                    |                           |
| 3. Education                                                                                                                                         |                    |                           |
| 4. Health and medical care (e.g., doctors, medicines, hospital/clinic charges)                                                                       |                    |                           |
| 5. Residential property, including home improvements (Does not include property purchased for production purposes or purchased solely as investment) |                    |                           |

**E25. What is your housing status?**

|                             |   |
|-----------------------------|---|
| Own                         | 1 |
| Rent                        | 2 |
| Mortgaged                   | 3 |
| Provided for free occupancy | 4 |

**E26. What is the total area of your apartment/house in square meters?** \_\_\_\_\_

**E27. How many rooms are in your residence** (excluding cousin, corridor, bathroom, toilet, loggia, and other storages)

|                 | Number |
|-----------------|--------|
| E27.1. In total |        |
| E27.2. Bedrooms |        |

**E28. Is your apartment/house provided with the following items?**

|                                                | Yes | No |
|------------------------------------------------|-----|----|
| <b>E28.1.</b> Hot water - central              | 1   | 2  |
| <b>E28.2.</b> Hot water - individual system    | 1   | 2  |
| <b>E28.3.</b> Electricity                      | 1   | 2  |
| <b>E28.4.</b> Gas supply - central             | 1   | 2  |
| <b>E28.5.</b> Liquid gas supply - gas balloons | 1   | 2  |
| <b>E28.6.</b> Electric Heating - individual    | 1   | 2  |
| <b>E28.7.</b> Gas heating - paid               | 1   | 2  |
| <b>E28.8.</b> Gas heating – state provided     | 1   | 2  |
| <b>E28.9.</b> Wood burning heating             | 1   | 2  |
| <b>E28.10.</b> Landline telephone              | 1   | 2  |

|                               |   |   |
|-------------------------------|---|---|
| <b>E28.11.</b> Internet       | 1 | 2 |
| <b>E28.12.</b> Wireless phone | 1 | 2 |
| <b>E28.13.</b> Mobile phone   | 1 | 2 |

**E29. Do you own the following livestock?**

| Livestock        | a) Own |    | b) Number |
|------------------|--------|----|-----------|
|                  | Yes    | No |           |
| E29.1. Cows      | 1      | 2  |           |
| E29.2. Bulls     | 1      | 2  |           |
| E29.3. Calves    | 1      | 2  |           |
| E29.4. Sheep     | 1      | 2  |           |
| E29.5. Goats     | 1      | 2  |           |
| E29.6. Pigs      | 1      | 2  |           |
| E29.7. Poultry   | 1      | 2  |           |
| E29.8. Donkeys   | 1      | 2  |           |
| E29.9. Horses    | 1      | 2  |           |
| E29.10. Rabbits  | 1      | 2  |           |
| E29.11. Beehives | 1      | 2  |           |

**E30. How many land plots do/did you use for cultivation (including leased land)? \_\_\_\_\_**

**E31. Area of the holding land (in ha, within 0.01 ha)**

|                                        |  |
|----------------------------------------|--|
| <b>a) Owned</b>                        |  |
| <b>b) Rented Total (c + d)</b>         |  |
| <b>c) Rented from state</b>            |  |
| <b>d) Rented from a private person</b> |  |
| <b>e) Total area (a + b)</b>           |  |

## EMP 3. EMPLOYMENT HISTORY

EMP.1. In the 12 months before taking the vocational education course, did you do work to earn an income?

|     |   |                 |
|-----|---|-----------------|
| Yes | 1 | SKIP QUESTION 3 |
| No  | 2 | CONTINUE        |

EMP.2. If No, why did you not work to earn an income?

|                                             |   |
|---------------------------------------------|---|
| Did not want to work                        | 1 |
| Could not work due to illness or disability | 2 |
| Still at school                             | 3 |
| Too old, retired                            | 4 |
| Unable to find work                         | 5 |
| Had to care for family members              | 6 |
| Other (Specify) _____                       | 7 |

EMP.3. What type of work was this? (PERMANENT MEANS THAT EMPLOYMENT WAS NOT CONTRACTED FOR A SPECIFIC, LIMITED PERIOD OF TIME; TEMPORARY MEANS THAT EMPLOYMENT WAS CONTRACTED FOR A SPECIFIC, LIMITED PERIOD OF TIME)

|                      |                  |
|----------------------|------------------|
|                      | MULTIPLE ANSWERS |
| Full-time, permanent | 1                |
| Full-time, temporary | 2                |
| Part-time, permanent | 3                |
| Part-time, temporary | 4                |

EMP.4. If Yes, were you:

|                                                                                                                                         | Yes | No |                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----|----|------------------------------------|
| <b>EMP4.1.</b> Employed for salary or wage                                                                                              | 1   | 2  | If Yes, ask questions 4.1.1-4.1.17 |
| <b>EMP4.2.</b> Self-employed in agriculture, including crop production, aquaculture, forestry, beekeeping, animal raising, and so forth | 1   | 2  | If Yes, ask questions 4.2.1-4.2.15 |
| <b>EMP4.3.</b> Self-employed in trade or other activities aside from agriculture                                                        | 1   | 2  | If Yes, ask questions 4.3.1-4.3.14 |

### SALARY OR WAGE EMPLOYMENT

EMP4.1.1. How many salaried or wage jobs did you have in the 12 months before taking the vocational education course? \_\_\_\_\_

EMP4.1.2. What were the types of employment?

|                                                        | MULTIPLE ANSWERS<br>READ OPTIONS |
|--------------------------------------------------------|----------------------------------|
| Employed by private person                             | 1                                |
| Employed by private firm                               | 2                                |
| Employed by government organization                    | 3                                |
| Employed by local NGO/development organization         | 4                                |
| Employed by international NGO/development organization | 5                                |
| Other (Specify) _____                                  | 6                                |

EMP4.1.3. What type of work was it?

|                                                                 | MULTIPLE ANSWERS |
|-----------------------------------------------------------------|------------------|
| Farming/agriculture (on-farm)                                   | 1                |
| Construction/Repair/maintenance                                 | 2                |
| Retail sales                                                    | 3                |
| Agriculture/food processing                                     | 4                |
| Food preparation or service (e.g., restaurant, kiosk, catering) | 5                |
| Education                                                       | 6                |
| Healthcare                                                      | 7                |
| Other service                                                   | 8                |
| Assembly/manufacturing                                          | 9                |
| Administrative/office work                                      | 10               |
| Other (Specify) _____                                           | 11               |

EMP4.1.4. How much did you earn in total from your wage or salaried employment in the 12 months before taking the vocational education course? \_\_\_\_\_

EMP4.1.5. Of the salaried or wage jobs you had in the 12 months before taking the vocational education course, which was the MAIN job in terms of income earned? \_\_\_\_\_ (ENTER THE CODE FROM TWO QUESTIONS PRIOR) THE REMAINDER OF THE QUESTIONS IN THIS SECTION REFER TO THE MAIN WAGE/SALARIED EMPLOYMENT

EMP4.1.6. What kind of work did you do in this job? DESCRIBE THE JOB AND MAIN TASKS OR DUTIES IN AT LEAST 2 WORDS

EMP4.1.7. What were the main goods/services produced at this place of work or its main function? DESCRIBE THE BUSINESS E.G., RESTAURANT, PRIMARY SCHOOL, TOOL FACTORY, HAZELNUT PRODUCTION, ETC.

EMP4.1.8. For how many months did you work at this job during the 12 months prior to taking the vocational education course? \_\_\_\_\_

EMP4.1.9. On average, how many days a month did you work at this job? \_\_\_\_\_

EMP4.1.10. On average, how many hours a day did you work at this job? \_\_\_\_\_

EMP4.1.11. How were you paid for this job?

|                       | READ OPTIONS |
|-----------------------|--------------|
| Piece rate            | 1            |
| Hourly wage           | 2            |
| Daily wage            | 3            |
| Monthly salary        | 4            |
| Yearly salary         | 5            |
| Other (Specify) _____ | 6            |

EMP4.1.12. On average, how much did you earn per day or per month? (USE MOST APPROPRIATE TIME FRAME)

|           |  |
|-----------|--|
| Per day   |  |
| Per month |  |

EMP4.1.13. Was this employer formally registered with the state?

|     |   |
|-----|---|
| Yes | 1 |
| No  | 2 |

EMP4.1.14. Were you entitled to medical benefits from this employer?

|     |   |
|-----|---|
| Yes | 1 |
| No  | 2 |

EMP4.1.15. Was the employment agreement with this employer written or verbal?

|         |   |
|---------|---|
| Written | 1 |
| Verbal  | 2 |

EMP4.1.16. Are you still employed by this employer?

|     |   |
|-----|---|
| Yes | 1 |
| No  | 2 |

EMP4.1.17. If you are not still employed by this employer, why not?

|                                                | MULTIPLE ANSWERS |
|------------------------------------------------|------------------|
| Salary/wage too low                            | 1                |
| Employer did not treat me well                 | 2                |
| Job ended (e.g., it was temporary or seasonal) | 3                |
| Wanted break from working                      | 4                |
| Found other job or income earning opportunity  | 5                |
| Family responsibilities                        | 6                |
| Sickness or disability                         | 7                |
| Business closed                                | 8                |
| Fired                                          | 9                |
| Family relocated                               | 10               |
| Other (Specify) _____                          | 11               |

**AGRICULTURE SELF-EMPLOYMENT**

EMP4.2.1. In what type of agricultural activity were you self-employed?

|                                           | MULTIPLE ANSWERS |
|-------------------------------------------|------------------|
| Vegetables                                | 1                |
| Fruits                                    | 2                |
| Tree fruits                               | 3                |
| Nuts                                      | 4                |
| Pulses                                    | 5                |
| Potatoes                                  | 6                |
| Grains/staples (e.g., wheat, maize, etc.) | 7                |
| Aquaculture                               | 8                |
| Forestry                                  | 9                |
| Beekeeping/honey                          | 10               |
| Livestock/small animals                   | 11               |
| Processing                                | 12               |
| Other (Specify) _____                     | 13               |

EMP4.2.2. How much would you estimate that you earned after expenses in TOTAL from all of your agricultural self-employment activities in the 12 months before taking the vocational education course? \_\_\_\_\_

EMP4.2.3. Of the agriculture self-employment activities you did in the 12 months before taking the vocational education course, which was the MAIN activity in terms of income earned? \_\_\_\_\_ (ENTER THE CODE FROM TWO QUESTIONS PRIOR) THE REMAINDER OF THE QUESTIONS IN THIS SECTION REFER TO THE MAIN AGRICULTURE SELF-EMPLOYMENT ACTIVITY

EMP4.2.4. What kind of activity was this? DESCRIBE THE ACTIVITY (e.g., tomatoes, cane fruits, beekeeping, etc.)

EMP4.2.5. How many years have you engaged in this activity? IF LESS THAN 1 YEAR WRITE IN 0 \_\_\_\_\_

**EMP4.2.6.** If activity is a crop, beekeeping, or aquaculture, ask: What is the total land area used to produce this item? USE APPROPRIATE UNIT OF MEASURE

|           |  |
|-----------|--|
| Hectares  |  |
| Sq Meters |  |

EMP4.2.7. How many months is the production season? \_\_\_\_\_

EMP4.2.8. How many harvests do you produce during a calendar year? \_\_\_\_\_

EMP4.2.9. When you harvest, what is the unit you use to measure production?

**Note: Only one answer in row.**

|  |      |           |       |        |         |         |      |                 |
|--|------|-----------|-------|--------|---------|---------|------|-----------------|
|  | Code | Kilograms | Grams | Number | Baskets | Bushels | Tons | Other (Specify) |
|--|------|-----------|-------|--------|---------|---------|------|-----------------|

|                         | (EMP4.2.1) |   |   |   |   |   |   |       |
|-------------------------|------------|---|---|---|---|---|---|-------|
| 1. product 1.<br> _____ |            | 1 | 2 | 3 | 4 | 5 | 6 | _____ |
| 2. product 2.<br> _____ |            | 1 | 2 | 3 | 4 | 5 | 6 | _____ |
| 3. product 3.<br> _____ |            | 1 | 2 | 3 | 4 | 5 | 6 | _____ |
| 4. product 4.<br> _____ |            | 1 | 2 | 3 | 4 | 5 | 6 | _____ |
| 5. product 5.<br> _____ |            | 1 | 2 | 3 | 4 | 5 | 6 | _____ |

EMP4.2.10. How much did you harvest during the past production season?

\_\_\_\_\_

EMP4.2.11. How much of what your harvested during the past production season did you sell? \_\_\_\_\_

EMP4.2.12. What TOTAL amount did you get for the amount you sold? GEL

\_\_\_\_\_

EMP4.2.13. How much do you estimate that you spent on all production costs for this activity during the past production season on the following:

| Cost Item                                                            | GEL |
|----------------------------------------------------------------------|-----|
| 1. Land rental                                                       |     |
| 2. Raw materials/Inputs (e.g., seeds, root stock, fingerlings, etc.) |     |
| 3. Chemicals                                                         |     |
| 4. Machine rental and fuel                                           |     |
| 5. Machine maintenance, repair, and parts                            |     |
| 6. Labor                                                             |     |
| 7. Feed                                                              |     |
| 8. Labor                                                             |     |
| 9. Storage                                                           |     |
| 10. Transport                                                        |     |
| 11. Veterinary services                                              |     |
| 12. Construction (e.g., greenhouses, sheds, hives, storage, etc.)    |     |
| 13. Other (specify)                                                  |     |
| 14. Other (specify)                                                  |     |

EMP4.2.14. Are you still engaged in this main activity?

|     |   |
|-----|---|
| Yes | 1 |
| No  | 2 |

EMP4.2.15. If you are not still engaged in this activity, why not?

|                                                                               | MULTIPLE RESPONSES |
|-------------------------------------------------------------------------------|--------------------|
| Income too low                                                                | 1                  |
| Switched to different activity                                                | 2                  |
| No or limited market demand for product                                       | 3                  |
| Market demand increased for substitute products                               | 4                  |
| Cost too much to produce                                                      | 5                  |
| Too much work to produce                                                      | 6                  |
| Taken over by other family members                                            | 7                  |
| Sickness or disability                                                        | 8                  |
| Weather, disease, pests, and so forth make it hard or unprofitable to produce | 9                  |
| Other (Specify) _____                                                         | 10                 |

### NON-AGRICULTURE SELF-EMPLOYMENT

EMP4.3.1. In what type of non-agriculture self-employment activity were you self-employed during the 12 months before participating in the vocational education course?

|                                 | MULTIPLE ANSWERS |
|---------------------------------|------------------|
| Construction/Repair/Maintenance | 1                |

|                                                                                 |    |
|---------------------------------------------------------------------------------|----|
| Car repair/wash                                                                 | 2  |
| Carpentry/woodworking                                                           | 3  |
| Retail shop/sales (e.g., kiosk, store, pharmacy)                                | 4  |
| Food processing, preparation or service (e.g., restaurant, food cart, catering) | 5  |
| Education                                                                       | 6  |
| Tailoring/shoe repair                                                           | 7  |
| Souvenir/handicrafts                                                            | 8  |
| Welding                                                                         | 9  |
| Plumbing                                                                        | 10 |
| Guesthouse                                                                      | 11 |
| Beauty (e.g., salon)                                                            | 12 |
| Small-scale manufacturing                                                       | 13 |
| Stone & ceramics                                                                | 14 |
| Event halls (e.g., weddings, funerals)                                          | 15 |
| Other (Specify) _____                                                           | 16 |

EMP4.3.2. How much would you estimate that you earned after expenses in TOTAL from all of your non-agriculture self-employment activities in the 12 months before taking the vocational education course? \_\_\_\_\_

EMP4.3.3. Of the non-agriculture self-employment activities you did in the 12 months before taking the vocational education course, which was the MAIN activity in terms of income earned?

\_\_\_\_\_ (ENTER THE CODE FROM TWO QUESTIONS PRIOR) THE REMAINDER OF THE QUESTIONS IN THIS SECTION REFER TO THE MAIN NON-AGRICULTURE SELF-EMPLOYMENT ACTIVITY

EMP4.3.4. What kind of activity was this? DESCRIBE THE ACTIVITY (e.g., beauty salon, grocery store, agro-tool manufacturing, guest house)

EMP4.3.5. How many years have you been engaged in this activity? IF LESS THAN 1 YEAR WRITE IN 0 \_\_\_\_\_

EMP4.3.6. Where is this business operated?

|                            |   |
|----------------------------|---|
|                            |   |
| Home inside the residence  | 1 |
| Home outside the residence | 2 |
| Industrial site            | 3 |
| Traditional market         | 4 |
| Commercial district shop   | 5 |
| Roadside                   | 6 |
| Other fixed place          | 7 |
| Mobile                     | 8 |

EMP4.3.7. What was the main source of money for setting up this business?

|                       |   |
|-----------------------|---|
|                       |   |
| Didn't need any money | 1 |

|                             |   |
|-----------------------------|---|
| Own savings                 | 2 |
| Commercial/development bank | 3 |
| Microfinance institution    | 4 |
| Local group                 | 5 |
| NGO                         | 6 |
| Other (Specify) _____       | 7 |

EMP4.3.8. In the 12 months before taking the vocational education course, how many months did the business operate? \_\_\_\_\_

EMP4.3.9. What were the average monthly gross revenues during the months of operation?  
\_\_\_\_\_

EMP4.3.10. What was the average expenditure on wages during a typical month of operation?  
\_\_\_\_\_

EMP4.3.11. What were the average expenditures on raw materials during a typical month of operation? \_\_\_\_\_

EMP4.3.12. What were average operating expenses such as fuel, kerosene, electricity, etc. during a typical month of operation? \_\_\_\_\_

EMP4.3.13. Was this business registered for VAT?

|         |   |
|---------|---|
| Yes     | 1 |
| No      | 2 |
| Refused | 3 |

EMP4.3.14. Was this business registered for income tax?

|         |   |
|---------|---|
| Yes     | 1 |
| No      | 2 |
| Refused | 3 |

## V4. OUTCOME OF VOCATIONAL EDUCATION COURSE

V1. What was the main reason why you decided to participate in the vocational education course?

|                                   |   |
|-----------------------------------|---|
|                                   |   |
| Wanted better job                 | 1 |
| Wanted to increase income         | 2 |
| Wanted to re-enter the workforce  | 3 |
| Wanted to start own business      | 4 |
| Wanted to increase independence   | 5 |
| Wanted to increase my work skills | 6 |
| Other (Specify) _____             | 7 |

V2. How did you hear about the vocational education course?

|                                   |   |
|-----------------------------------|---|
|                                   |   |
| Community meeting                 | 1 |
| Municipal officials               | 2 |
| Friends or family                 | 3 |
| Casual acquaintances              | 4 |
| Multi-media (radio, TV, internet) | 5 |
| Posters, leaflets, signs          | 6 |
| USAID/NEO/AIC/CIDA/CHCA           | 7 |
| Other (Specify) _____             | 8 |

V3. Had you ever participated in any other type of business/job training course before this one?

|     |   |                  |
|-----|---|------------------|
| Yes | 1 | CONTINUE         |
| No  | 2 | SKIP QUESTION V6 |

V4. If Yes, how long ago was this?

|        |  |
|--------|--|
| Years  |  |
| Months |  |

V5. Who offered this previous training course?

|                              |                  |
|------------------------------|------------------|
|                              | MULTIPLE ANSWERS |
| Government organization      | 1                |
| NGO/development organization | 2                |
| Private organization         | 3                |
| Other (Specify) _____        | 4                |

**V6.** After completing the vocational education course, did you find regular employment?

THIS REFERS TO THE NEO COURSE

|     |   |
|-----|---|
| Yes | 1 |
| No  | 2 |

V7. What kind of employment did you find?

|                                  |              |
|----------------------------------|--------------|
|                                  | READ OPTIONS |
| Salary or wage employment        | 1            |
| Agricultural self-employment     | 2            |
| Non-agricultural self-employment | 3            |

V8. Would you have been able to find work without attending this course?

|     |   |
|-----|---|
| Yes | 1 |
| No  | 2 |

V9. Which of the following best describes the type of employment you found after the vocational education course?

|                                                | READ OPTIONS |
|------------------------------------------------|--------------|
| Old job with previous employer                 | 1            |
| Different job with previous employer           | 2            |
| Similar to old job but with different employer | 3            |
| Different job with different employer          | 4            |
| Self-employment in agriculture production      | 5            |
| Self-employment in non-agriculture             | 6            |
| Other (Specify) _____                          | 7            |

V10. How many months after completing the course did you find regular employment?  
 IF RESPONDENT CONTINUED WITH EMPLOYMENT HELD PRIOR TO THE VOCATIONAL TRAINING COURSE WITHOUT INTERRUPTION ENTER 0

|                       |   |                     |
|-----------------------|---|---------------------|
| Weeks                 |   | CONTINUE            |
| Months                |   |                     |
| don't find EMPLOYMENT | 0 | SKIP QUESTION VOC11 |

ASK IF RESPONDENT FOUND EMPLOYMENT

V11. How important was the vocational education course in helping you find employment?

|                      | READ OPTIONS |
|----------------------|--------------|
| Not at all important | 1            |
| Not important        | 2            |
| No opinion           | 3            |
| Important            | 4            |
| Very important       | 5            |

V12. How useful are the knowledge and skills you acquired from the vocational education course in doing the job that you found after the course?  
 ASK IF RESPONDENT FOUND EMPLOYMENT

|                   | READ OPTIONS |
|-------------------|--------------|
| Not at all useful | 1            |
| Not useful        | 2            |
| No opinion        | 3            |
| Useful            | 4            |
| Very useful       | 5            |

ASK IF RESPONDENT DID NOT FIND EMPLOYMENT

V13. Why have you not found employment yet?

|                                                | MULTIPLE ANSWERS |
|------------------------------------------------|------------------|
| Difficult finding work I like                  | 1                |
| Can't find work to match my skills             | 2                |
| Can't find work to match my income aspirations | 3                |
| No jobs available                              | 4                |
| Lack of accessible transportation              | 5                |
| Fear of losing disability benefits             | 6                |

|                                                            |    |
|------------------------------------------------------------|----|
| Fear of losing other sources of income                     | 7  |
| Family and friends discouraged me from working             | 8  |
| Family responsibilities prevent it                         | 9  |
| Information about jobs not available                       | 10 |
| Victim of discrimination                                   | 11 |
| Training/skills are inadequate                             | 12 |
| Difficult to find a job that accommodates disability-needs | 13 |
| Close to retirement/already retired                        | 14 |
| Other (Specify) _____                                      | 15 |

V14. What are your prospects for finding employment soon?

|           | READ OPTIONS |
|-----------|--------------|
| Very poor | 1            |
| Poor      | 2            |
| Unsure    | 3            |
| Good      | 4            |
| Very good | 5            |

ASK IF RESPONDENT HAS NOT FOUND EMPLOYMENT

V15. How useful do you think the knowledge and skills acquired from the vocational education course will be to your ability to find employment?

|                   | READ OPTIONS |
|-------------------|--------------|
| Not at all useful | 1            |
| Not useful        | 2            |
| No opinion        | 3            |
| Useful            | 4            |
| Very useful       | 5            |

## IN5. INFORMATION ON CURRENT EMPLOYMENT

### SALARY OR WAGE EMPLOYMENT

IN1. What kind of work do you do in this job? | \_\_\_\_\_ | \_\_\_\_\_ |

DESCRIBE THE JOB AND MAIN TASKS OR DUTIES IN AT LEAST 2 WORDS

IN2. What are the main goods/services produced at this place of work or its main function?

DESCRIBE THE BUSINESS E.G., RESTAURANT, PRIMARY SCHOOL, TOOL FACTORY, HAZELNUT PRODUCTION, ETC.

IN3. For how many months have you worked at this job | \_\_\_\_\_ |

IN4. On average, how many days a month do you work at this job? | \_\_\_\_\_ |

IN5. On average, how many hours a day do you work at this job? | \_\_\_\_\_ |

IN6. How are you paid for this job?

|                       | READ OPTIONS |
|-----------------------|--------------|
| Piece rate            | 1            |
| Hourly wage           | 2            |
| Daily wage            | 3            |
| Monthly salary        | 4            |
| Yearly salary         | 5            |
| Other (Specify) _____ | 6            |

IN7. On average, how much do you earn per day or per month? (USE MOST APROPRIATE TIME FRAME)

|           |  |
|-----------|--|
| Per day   |  |
| Per month |  |

IN8. Is this employer formally registered with the state?

|     |   |
|-----|---|
| Yes | 1 |
| No  | 2 |

IN9. Are you entitled to medical benefits from this employer?

|     |   |
|-----|---|
| Yes | 1 |
| No  | 2 |

IN10. Is the employment agreement with this employer written or verbal?

|         |   |
|---------|---|
| Written | 1 |
| Verbal  | 2 |

IN11. Overall, how satisfied are you with this job?

|                                   | READ OPTIONS |
|-----------------------------------|--------------|
| Very dissatisfied                 | 1            |
| Dissatisfied                      | 2            |
| Neither satisfied or dissatisfied | 3            |
| Satisfied                         | 4            |
| Very satisfied                    | 5            |

### AGRICULTURE SELF-EMPLOYMENT

IN12. What kind of activity is this?

|                          |  |
|--------------------------|--|
|                          |  |
| <b>IN12a.</b><br>  _____ |  |
| <b>IN12b.</b>            |  |

|       |  |
|-------|--|
| _____ |  |
|-------|--|

DESCRIBE THE ACTIVITY (e.g., tomatoes, cane fruits, beekeeping, etc.)

IN13. For how long have you engaged in this activity?

|        |  |
|--------|--|
| Months |  |
| Years  |  |

IN14. If activity is a crop, beekeeping, or aquaculture, ask: What is the total land area used to produce this item? USE APPROPRIATE UNIT OF MEASURE

|           |  |
|-----------|--|
| Hectares  |  |
| Sq Meters |  |

IN15. How many months is the production season? | \_\_\_\_\_ |

IN16. How many harvests do you produce during a calendar year? | \_\_\_\_\_ |

IN17. When you harvest, what is the unit you use to measure production?

|                          | Code<br>(EMP4.2.1) | Kilograms | Grams | Number | Baskets | Bushels | Tons | Other (Specify) |
|--------------------------|--------------------|-----------|-------|--------|---------|---------|------|-----------------|
| 1. product 1.<br>  _____ |                    | 1         | 2     | 3      | 4       | 5       | 6    | _____           |
| 2. product 2.<br>  _____ |                    | 1         | 2     | 3      | 4       | 5       | 6    | _____           |
| 3. product 3.<br>  _____ |                    | 1         | 2     | 3      | 4       | 5       | 6    | _____           |
| 4. product 4.<br>  _____ |                    | 1         | 2     | 3      | 4       | 5       | 6    | _____           |
| 5. product 5.<br>  _____ |                    | 1         | 2     | 3      | 4       | 5       | 6    | _____           |

IN18. Have you completed a production season yet?

|     |   |                     |
|-----|---|---------------------|
|     |   |                     |
| Yes | 1 | CONTINUE            |
| NO  | 2 | SKIP QUESTION VOC23 |

IN19. How much did you harvest during the past production season? | \_\_\_\_\_ |

IN20. How much of what you harvested during the past production season did you sell?  
| \_\_\_\_\_ |

IN21. What TOTAL amount did you get for the amount you sold? GEL \_\_\_\_\_

**How much do you estimate that you spent on all production costs for this activity during the past production season on the following:**

| Cost Item                                                         | GEL |
|-------------------------------------------------------------------|-----|
| Land rental                                                       |     |
| Raw materials/Inputs (e.g., seeds, root stock, fingerlings, etc.) |     |
| Chemicals                                                         |     |
| Machine rental and fuel                                           |     |
| Machine maintenance, repair, and parts                            |     |
| Labor                                                             |     |
| Feed                                                              |     |
| Labor                                                             |     |
| Storage                                                           |     |
| Transport                                                         |     |
| Veterinary services                                               |     |
| Construction (e.g., greenhouses, shed, storage, hives, etc.)      |     |
| Other (specify)                                                   |     |
| Other (specify)                                                   |     |

IN22. Overall, how satisfied are you with this self-employment activity?

|                                   | READ OPTIONS |
|-----------------------------------|--------------|
| Very dissatisfied                 | 1            |
| Dissatisfied                      | 2            |
| Neither satisfied or dissatisfied | 3            |
| Satisfied                         | 4            |
| Very satisfied                    | 5            |

**NON-AGRICULTURE SELF-EMPLOYMENT**

IN23. What kind of activity is this?

|               |  |
|---------------|--|
|               |  |
| <b>IN12a.</b> |  |

|                          |  |
|--------------------------|--|
| _____                    |  |
| <b>IN12b.</b><br>  _____ |  |

DESCRIBE THE ACTIVITY (e.g., beauty salon, grocery store, agro-tool manufacturing, guest house)

IN24. For how long have you engaged in this business?

|        |  |
|--------|--|
| Months |  |
| Years  |  |

IN25. Where is this business operated?

|                            | SINGLE ANSWER |
|----------------------------|---------------|
| Home inside the residence  | 1             |
| Home outside the residence | 2             |
| Industrial site            | 3             |
| Traditional market         | 4             |
| Commercial district shop   | 5             |
| Roadside                   | 6             |
| Other fixed place          | 7             |
| Mobile                     | 8             |

IN26. What was the main source of money for setting up this business?

|                             | SINGLE ANSWER |
|-----------------------------|---------------|
| Didn't need any money       | 1             |
| Own savings                 | 2             |
| Commercial/development bank | 3             |
| Microfinance institution    | 4             |
| Local group                 | 5             |
| NGO                         | 6             |
| Other (Specify) _____       | 7             |

How many months during the year does this business operate? \_\_\_\_\_

What are the average monthly gross revenues during the months of operation? \_\_\_\_\_

What are the average expenditures on wages during a typical month of operation? \_\_\_\_\_

What are the average expenditures on raw materials during a typical month of operation? \_\_\_\_\_

What are average operating expenses such as fuel, kerosene, electricity, etc. during a typical month of operation?  
\_\_\_\_\_

IN27. Is this business registered for VAT?

|         |   |
|---------|---|
| Yes     | 1 |
| No      | 2 |
| Refused | 3 |

IN28. Is this business registered for income tax?

|         |   |
|---------|---|
| Yes     | 1 |
| No      | 2 |
| Refused | 3 |

IN29. Overall, how satisfied are you with this self-employment activity?

|                                   | READ OPTIONS |
|-----------------------------------|--------------|
| Very dissatisfied                 | 1            |
| Dissatisfied                      | 2            |
| Neither satisfied or dissatisfied | 3            |
| Satisfied                         | 4            |
| Very satisfied                    | 5            |

## 5. SATISFACTION WITH VOCATIONAL EDUCATION

S1. To what extent do you agree with the following statements about the vocational education course?

|                                                                                     | Strongly agree | Agree | Neither agree or disagree | Disagree | Strongly disagree |
|-------------------------------------------------------------------------------------|----------------|-------|---------------------------|----------|-------------------|
| My instructors knew the subject matter well                                         | 5              | 4     | 3                         | 2        | 1                 |
| My instructors communicated the subject matter well                                 | 5              | 4     | 3                         | 2        | 1                 |
| The mix of classroom instruction and practical training was appropriate             | 5              | 4     | 3                         | 2        | 1                 |
| The subject matter taught was appropriate to my situation                           | 5              | 4     | 3                         | 2        | 1                 |
| I learned a lot I did not know before hand                                          | 5              | 4     | 3                         | 2        | 1                 |
| I developed important new knowledge and skills                                      | 5              | 4     | 3                         | 2        | 1                 |
| There is good market demand for the knowledge and skills I developed                | 5              | 4     | 3                         | 2        | 1                 |
| The course linked me to people who can help me in my future employment              | 5              | 4     | 3                         | 2        | 1                 |
| The instructors and course administrators gave me useful help in finding employment | 5              | 4     | 3                         | 2        | 1                 |

S2. To what extent do you agree with the following statements? Participating in the vocational training course has

|                                                   | Strongly agree | Agree | Neither agree or disagree | Disagree | Strongly disagree |
|---------------------------------------------------|----------------|-------|---------------------------|----------|-------------------|
| Increased my income                               | 5              | 4     | 3                         | 2        | 1                 |
| Increased my future income potential              | 5              | 4     | 3                         | 2        | 1                 |
| Increased my financial independence               | 5              | 4     | 3                         | 2        | 1                 |
| Increased my independence generally               | 5              | 4     | 3                         | 2        | 1                 |
| Improved my work knowledge and skills             | 5              | 4     | 3                         | 2        | 1                 |
| Increased my motivation to work                   | 5              | 4     | 3                         | 2        | 1                 |
| Improved my chances of finding quality employment | 5              | 4     | 3                         | 2        | 1                 |
| Increased my self-esteem                          | 5              | 4     | 3                         | 2        | 1                 |
| Improved my quality of life generally             | 5              | 4     | 3                         | 2        | 1                 |

S3. Overall, how satisfied are you with the vocational education course?

|                                   | READ OPTIONS |
|-----------------------------------|--------------|
| Very dissatisfied                 | 1            |
| Dissatisfied                      | 2            |
| Neither satisfied or dissatisfied | 3            |
| Satisfied                         | 4            |
| Very satisfied                    | 5            |

## 6. Access to Credit

A1. Did you or someone in your household try to obtain a loan over the last 12 months?

|     |   |
|-----|---|
| No  | 0 |
| Yes | 1 |

A2. If No, why not? MULTIPLE ANSWERS

|                                      |    |
|--------------------------------------|----|
| Don't know how to apply              | 1  |
| Lenders are not located close by     | 2  |
| Interest rates are too high          | 3  |
| Collateral requirements are too high | 4  |
| Don't meet the requirements          | 5  |
| Application procedures too complex   | 6  |
| Afraid that won't be able to repay   | 7  |
| Don't want to have debt              | 8  |
| Problems with a previous debt        | 9  |
| Other (specify) _____                | 10 |

A3. How many loans did you apply for? \_\_\_\_\_

A4. Please tell me about each of loans you applied for and what the outcome was (up to 3 loans)

| No   | To whom did you apply?                                                                                                                                                                                                                                                               | Did you get the loan? | If you did not get the loan, what was the primary reason for refusal?                                                                                                                                                                                     | What is the length of the loan? (Months) | What is the interest rate? | What is the amount of your loan payment? |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------|------------------------------------------|
| A4.1 |                                                                                                                                                                                                                                                                                      |                       |                                                                                                                                                                                                                                                           |                                          |                            |                                          |
| A4.2 |                                                                                                                                                                                                                                                                                      |                       |                                                                                                                                                                                                                                                           |                                          |                            |                                          |
| A4.3 |                                                                                                                                                                                                                                                                                      |                       |                                                                                                                                                                                                                                                           |                                          |                            |                                          |
|      | 1 = Commercial/development bank<br>2 = Microfinance institution<br>3 = Local shop/supplier that allows you to take goods/services on credit<br>4 = Buyer of products who gives you cash in advance<br>5 = Family member or friend<br>6 = Moneylender<br>7 = Other (specify)<br>_____ | 1 = Yes<br>2 = No     | 1 = Incomplete application<br>2 = Poor quality of proposal<br>3 = Insufficient income<br>4 = Problem with previous loan<br>5 = Insufficient collateral<br>6 = Location too remote<br>7 = No credit history<br>8 = Unknown<br>9 = Other (specify)<br>_____ |                                          |                            |                                          |

A5. Please tell me about:

| #    | a) How often do you make payments on the loan?                                                                                                       | b) Were you required to provide collateral for the loan? | c) What did you use as collateral?                                                                                                             | d) What was the primary purpose that you used the loan for?                                                                                                                                                                          |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A5.1 |                                                                                                                                                      |                                                          |                                                                                                                                                |                                                                                                                                                                                                                                      |
| A5.2 |                                                                                                                                                      |                                                          |                                                                                                                                                |                                                                                                                                                                                                                                      |
| A5.3 |                                                                                                                                                      |                                                          |                                                                                                                                                |                                                                                                                                                                                                                                      |
|      | 1 = Every week<br>2 = Every month<br>2 = Every other month<br>3 = Every 3 months<br>4 = Every 6 months<br>5 = Every 12 months<br>6 = Other (specify) | 1 = Yes<br>2 = No                                        | 1 = Land<br>2 = House/Residence<br>3 = Vehicle/equipment<br>4 = Gold/jewelry/valuable stones<br>5 = Other liquid assets<br>6 = Other (specify) | 1 = Purchase machinery & equipment<br>2 = Purchase production inputs/ working capital<br>2 = Purchase land<br>3 = Purchase livestock<br>4 = Purchase/ invest in new production method or technology<br>5 = Construct or rehabilitate |

|  |  |  |  |                                                                                                 |
|--|--|--|--|-------------------------------------------------------------------------------------------------|
|  |  |  |  | work place<br>6 = Construct or rehabilitate home<br>7=Purchase consumer goods<br>8=Other  _____ |
|--|--|--|--|-------------------------------------------------------------------------------------------------|

## 9.5 Annex 5 - Baseline 1.2 (NEO Project Components 2, 3) Focus Group and Key Informant Interview Guide

### FOCUS GROUP AND KEY INFORMANT INTERVIEW GUIDES FOR BASELINE 1.2 (NEO PROJECT COMPONENTS 2&3)

The below interview guides are developed to guide individual interview questions and focus groups, to be conducted throughout the course of the NEO Evaluation activity. The questions below are in reference to the Rural Economic Development and Vulnerable Populations components of NEO (project components 2 and 3 respectively), and do not include questions related to the Local Economic Development component 1 of NEO which are contained in a separate, previously administered interview guide.

#### **Informant Typology: NEO and implementing partner staff**

Definition of Informant: Includes and staff member of the NEO project, most likely including community mobilizers, project engineers, senior leadership or technical staff. Informants should be knowledgeable regarding the economic strengthening and vulnerable populations components of the project.

#### *Framing questions:*

1. What is your position and responsibilities on the NEO project?

#### *Overall changes / externalities:*

2. Have there been any major changes in project strategy or implementation of the rural economic development or vulnerable populations components of NEO relevant to this evaluation?
3. Have there been any major changes in the overall economic or governance environment in geographies targeted by the NEO project?

#### *In regards to project progress:*

4. In your view, what are the greatest successes of NEO's rural economic development and vulnerable populations components to date?
5. What have been the greatest challenges to NEO's rural economic development and vulnerable populations components to date?
6. If you could do anything differently, what would it be?
7. How is the program ensuring the participation of women in Component 2 activities?

#### *In regards to impact of NEO's rural economic development component on increasing incomes and creating jobs in targeted communities?:*

8. Are the value chain project activities creating jobs and income in local communities, or are benefits limited to those supported?
9. What might be some additional strategies that can be utilized to "spread the wealth" and opportunities across a wider population in the communities?
10. What is the process for project / investment selection?
11. Please provide information on the objectives and process that NEO utilizes in forming associations or other groups? Are there any issues with governance or resource sharing? Is the

purpose primarily to manage the grant, or to create economies through shared resources? Is sustainability of these groups a priority, and what strategies are utilized for that?

*In regards to NEO's rural economic development component's impact on increasing productivity and/or profitability of targeted farms / businesses?:*

12. What, in your view, have been the most successful NEO interventions for job creation and income generation?
13. What project interventions are creating less impact?
14. Do the industries and opportunities that NEO is supporting have sufficient market demand?
15. What is the process and criteria to select / prioritize specific value chains?
16. What value chains have had the most success with NEO support?

*In regards to the impact of providing grants vs. other types of assistance as a means of addressing project goals?:*

17. How is it determined what inputs are to be distributed to grantees / project beneficiaries?
18. Is the grant-making process competitive?
19. Are businesses selected for support sustainable over the long-term?
20. What measures have been taken to ensure ownership / buy-in on the part of business owners?

*In regards to NEO's impact on increasing access to financial services for underserved agricultural and non-agricultural rural producers / processors / service-providers?:*

21. Are beneficiaries / program participants most constrained by behavior change or access to finance related issues?
22. In terms of technology adoption / uptake, what have been the key successes and challenges?
23. What is the project doing to ensure access to finance, beyond grant-making, and to what extent is this approach sustainable?
24. Is NEO promoting credit?
25. Is NEO linking increased production to market / buyers? Do NEO beneficiaries have sufficient market outlets and demand for their production?

*In regards to the resulting impact of micro-grants, in-kind support, cash-for-work and capacity-building interventions provided to highly vulnerable households toward sustainably alleviating poverty (e.g. increase in productivity / the creation of sustainable micro-entrepreneurs, or providing one-time spike in consumption)?:*

26. How sustainable is the assistance to vulnerable populations, in your opinion, or is more to address immediate needs?

*In regards to the impact of NEO's vocational education and on-the-job training activities on increasing incomes in targeted communities?*

27. What have been the greatest successes of this component of the project, and key shortcomings?
28. What recommendations do you have for strengthening this component of the project?
29. How do the vocational training providers benefit from the activity?

## **Informant Typology: Agricultural Training Participants**

Definition of Informant: Participants in NEO's agricultural training activities, both one-time participants and those attending multiple trainings.

### *Framing questions:*

1. In what / which NEO trainings have you participated in, and what has been the duration of them?
2. Given the opportunity, would you participate in another NEO-supported training?
3. What was the theme of the training you participated in, and what did you learn?
4. Has the training had any specific effect on your production or income?

### *In regards to awareness of and satisfaction with training / TA provided by NEO:*

1. Are you aware of who financed and conducted the training?
2. How did you hear about the training?
3. Description of an assistance received from NEO project (inputs and technical assistance)
4. How would you evaluate assistance?
  - a. What was the most valuable/useful in provided assistance?
  - b. What were the shortcomings in provided assistance?

### *In regards to demonstration and uptake of technology:<sup>6</sup>*

1. Have you utilized new technologies or practices as the result of the training? If so, how?
2. If you have not utilized new technologies or practices, what is stopping you?
3. Have you made any investments in your production equipment technology as a result of the training?
4. What new practice have you learned through NEO provided technical assistance?
  - a. What would be the impact of adoption and implementation of the learned new practice on production cost, productivity and marketable yield?
  - b. What practices require investments and what practices require behavioral change?
  - c. Can you afford required investments?

### *In regards to the effectiveness of short-term training / light-touch approach:*

1. Do you feel that you have gained the sufficient skills and information in order to successfully apply principles learned to your agricultural production practices?
2. Were you provided with any practical examples or demonstration associated with the training?
3. If there was demonstration associated with the training, what has been the impact? Has it generally convinced you of the need to apply practices, or are you unconvinced?

*In regards to impact of NEO's rural economic development component on increasing incomes, jobs and productivity of targeted farms / businesses or the targeted communities at large?:*

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<sup>6</sup> According to NEO, types of new technologies are defined as: a) Mechanical an physical: New or improved land preparation, production, harvesting, post-harvest handling, processing and energy; b) Biological: New or improved livestock breeds, plant varieties, soil management practices and livestock health; c) Chemical: Fertilizers, insecticides and pesticides sustainably and environmentally applied, and soil amendments; d) Management and cultural practices: Sustainable water and land management practices, IT, improved marketing and production and use of climate information and energy efficiency.

1. Has this training and subsequent application of skills gained resulted in any increased income, either directly or indirectly?
2. Have you created any new jobs or seen any new jobs created as the result of this training and/or related investments?

*In regards to NEO's impact on increasing access to financial services for underserved agricultural and non-agricultural rural producers / processors / service-providers?:*

1. Do you have any particular need for credit or financial assistance to expand your production activities?
2. Have you received any information or linkages to financial service providers as the result of the NEO-supported training?

## **Informant Typology: Agriculture Productivity Grantees**

Definition of Informant: Recipients and sub-recipients of agricultural productivity grants, to potentially include but not be limited to: seed potato associations, open field production demonstration plots, greenhouses, strawberry association, hazelnut association.

*Framing questions:*

1. What assistance has the NEO project provided you with?
2. How is your business / income-generating activity organized? (e.g. individual entrepreneur, business, association, etc.)
3. Would you characterize yourself as a commercial or subsistence farmer?

*In regards to NEO's rural economic development component's impact on increasing productivity and/or profitability of targeted farms / businesses, and the effectiveness of grants vs. other types of assistance?:*

4. What is the overall size of the investment, and how long have you been in operation?
5. What percentage of the overall investment in your enterprise was supported by the NEO project?
6. What are the other sources of investment capital, and percentages, in addition to the NEO investment?
7. Is your business still operating, and what are the sources of revenue?
8. Have you received any additional support from other donors / NGOs?
9. Were you doing this business, or something similar, prior to receiving NEO support?
10. Could you have qualified for a loan, or was any part of this investment a loan?

*In regards to impact of NEO's rural economic development component on increasing incomes and creating jobs in targeted communities?:*

11. How has your enterprise benefitted the local community?
12. Was the NEO project support coupled with any requirements for community give-back?
13. Has your enterprise directly created or stimulated jobs in the local community?
14. To what extent, if at all, has overall production in this sector increased in the local community before / after the NEO investment?

*In regards to NEO's impact on demonstration and uptake of new technologies?:*

15. Have you utilized new technologies or practices as the result of the training? If so, how?
16. If you have not utilized new technologies or practices, what is stopping you?
17. Have you made any investments in your production equipment technology as a result of the training?
18. What new practice have you learned through NEO provided technical assistance?
  - a. What would be the impact of adoption and implementation of the learned new practice on production cost, productivity and marketable yield?
  - b. What practices require investments and what practices require behavioral change?
  - c. Can you afford required investments?

*In regards to NEO's impact on group-based production / enterprise: (for respondents organized as an association or other group-based enterprise.)*

19. When was the group formed, and for what purpose?
20. What have the tangible benefits of the NEO project investment been to you individually?

21. Do you share resources or revenues with other group members? If so, how?
22. Does the enterprise benefit certain individuals over others? If so, how?

*In regards to NEO's impact on increasing access to financial services for underserved agricultural and non-agricultural rural producers / processors / service-providers?:*

23. Have you received a loan in conjunction with NEO assisted business?
24. Did you have any pre-existing relations with lenders?
25. Do you have any new relations with banks / lenders as a result of the NEO assistance?
26. What percentage of the overall investment came from loans, if any?

### **Informant Typology: Lead firm purchasers collaborating with NEO-supported producers**

Definition of Informant: These are lead firms that purchase or source directly from NEO-supported producers. NEO may, or may not have, collaborated directly with them to facilitate linkages or provide other associated support to promote market outlets for their production. Examples of these firms include: Sense Selection (greenhouse production buyers), Sales Management Group (beekeeping product buyers), Makriali Ltd (potato seed buyer), Eco Farm (vegetable purchaser).

#### *Framing questions:*

1. Are you familiar with the NEO project? If so, in what respect have you collaborated with NEO or NEO-supported producers?
2. Are you currently sourcing from NEO-supported producers? If so, what products and volumes?
3. Do you typically invest in your supply chain? If so, how and for what purpose?

#### *In regards to productivity of NEO-supported farms and firms and overall ability to reliably source:*

4. Approximately how many NEO-supported producers do currently have contracts with, or plan to have contracts with? Do they typically operate at a subsistence or commercial scale?
5. What have been the contract requirements in terms of product, volume, quality, price, period, delivery / collection / aggregation, and payment?
6. Why have you decided to contract with NEO-supported producers?
7. How would you describe NEO grantee performance in fulfilling contract requirements?
8. What is the market of production sourced from NEO supported producers?
9. Do you plan to continue and expand your cooperation with NEO grantees?
10. Do you plan to diversify range of products to be procured from NEO grantees?
11. What other further assistance would you consider for NEO grantees to make them more efficient and their activities more sustainable (if there is a need)?

## **Informant Typology: Input Supply Grantees**

Definition of Informant: Beneficiaries of input supply grants by the NEO project.

### *Framing questions:*

1. What assistance has the NEO project provided you with?
2. How is your business / income-generating activity organized? (e.g. individual entrepreneur, business, association, etc.)
3. What type of inputs are you selling?
4. Do you engage exclusively in input supply?

### *In regards to the input supply market and strengthening market systems:*

5. Was your business supplying inputs prior to receiving support from NEO?
6. Is your business currently supplying inputs? If so, who are your consumers?
7. What impact has your business had on the market?
8. Who are your competition, and how well established are they?
9. Where do you plan to sell seeds/ seedlings/saplings/ rootstocks?
10. What is your annual sales projection (quantity, value)?
11. Is there a demand and how do you estimate demand?
12. How many farmers do you estimate to serve?
13. What is potential buyer/ client production profile (area of land farmed, crops produced, etc.)
14. What type of technical assistance do you plan to provide to buyers/ clients (soil preparation, planting, fertilization, IPM, harvesting, PHH, etc.)
  - a. How do you plan to approach advisory service provision (when buyers/ clients come to buy, field days, etc.)
  - b. What new practices would you teach to buyers/clients?
  - c. Please, specify practices that require investments from buyers/ clients and that require behavior change
    - i. Will the buyers/clients be able to afford required investments?
    - ii. How would you motivate farmer behavioral change?
  - d. What would be the impact of adoption and implementation of the learned new practice on production unit cost, productivity and marketable yield/ output?
15. By how much would you estimate income of your buyers/ clients to increase if they properly follow your recommendations and adopt and implement learned practices in soil preparation, planting, fertilization, IPM, harvesting, PHH, etc?

### *In regards to NEO's rural economic development component's impact on increasing productivity and/or profitability of targeted farms / businesses, and the effectiveness of grants vs. other types of assistance?:*

16. What is the overall size of the investment, and how long have you been in operation?
17. What percentage of the overall investment in your enterprise was supported by the NEO project?
18. What are the other sources of investment capital, and percentages, in addition to the NEO investment?
19. Is your business still operating, and what are the sources of revenue?
20. Have you received any additional support from other donors / NGOs?
21. Were you doing this business, or something similar, prior to receiving NEO support?

*In regards to impact of NEO's rural economic development component on increasing incomes and creating jobs in targeted communities?:*

22. How has your enterprise benefitted the local community?
23. Was the NEO project support coupled with any requirements for community give-back / distribution of products or profits to local communities or vulnerable populations?
24. Has your enterprise directly created or stimulated jobs in the local community?
25. To what extent, if at all, has overall production in this sector increased in the local community before / after the NEO investment?

*In regards to NEO's impact on group-based production / enterprise: (for respondents organized as an association or other group-based enterprise.)*

26. When was the group formed, and for what purpose?
27. What have the tangible benefits of the NEO project investment been to you individually?
28. Do you share resources or revenues with other group members? If so, how?
29. Does the enterprise benefit certain individuals over others? If so, how?

*In regards to NEO's impact on increasing access to financial services for underserved agricultural and non-agricultural rural producers / processors / service-providers?:*

30. Have you received a loan in conjunction with NEO assisted business?
31. Did you have any pre-existing relations with lenders?
32. Do you have any new relations with banks / lenders as a result of the NEO assistance?
33. What percentage of the overall investment came from loans, if any?

## **Informant Typology: Vocational and On-The-Job Training Participants**

Definition of Informant: Participants in vocational training and on-the-job training provided by the NEO project. Most of those finishing the program will have also received a toolkit. Interviews / focus groups should be composed of both those employed and unemployed following the NEO assistance.

### *Framing questions:*

1. How do you find-out about the NEO project, and how were you selected to participate?
2. Have you benefitted from the NEO project? If so, how?
3. Did you participate in NEO-supported vocational training?
4. Did you receive a toolkit after the training? If so, what did it include?
5. Have you found a job or increased your income as a result of the NEO support?

### *In regards to satisfaction with trainings and toolkits:*

6. Description of an assistance received from NEO project (inputs and technical assistance)
7. Has your behavior changed as a result of the training assistance? If so, how?
8. How would you evaluate assistance?
  - a. What was the most valuable/useful in provided assistance?
  - b. What were the shortcomings in provided assistance?
9. What other assistance would be useful?
10. How might NEO improve its assistance?

### *In regards to the impact of NEO's vocational education and on-the-job training activities on increasing incomes in targeted communities?*

11. What is your current job, or main source of income? Was it the same or different before receiving NEO support?
12. Would you have still had this job or main source of income if you did not receive vocational training and/or toolkit from NEO?
13. What is your income before and after completing the vocational and/or on-the-job training?
14. Do you feel that the toolkit or training qualification has had more impact on your job / income-earning prospects?

### *In regards to NEO's impact on increasing access to financial services for underserved agricultural and non-agricultural rural producers / processors / service-providers?:*

15. Have you ever applied for a loan?
16. Have you been linked to any MFIs or banks during the NEO supported activity?
17. Are further investments in your business required, or has it all been taken care of by the toolkit?
18. For any future investments, how will you access needed cash?

### *FOR THOSE RECEIVING TOOLKITS ONLY: In regards to the resulting impact of micro-grants, in-kind support, cash-for-work and capacity-building interventions provided to highly vulnerable households toward sustainably alleviating poverty (e.g. increase in productivity / the creation of sustainable micro-entrepreneurs, or providing one-time spike in consumption)?:*

19. Exactly what have you received as a part of your toolkit from NEO, and how have you used it?
20. Have you purchased / invested in any additional equipment subsequent to NEO support?
21. Do you have the needed time and/or resources in order to continue in this business?

*FOR THOSE RECEIVING EMPLOYMENT / JOBS AFTER VOCATIONAL TRAINING ONLY:*

22. Is the job in a sector / area related to the training that you received from NEO?
23. Are you still working in that job, or employed in the same sector?
24. Is this job your #1 source of income?
25. Did NEO link you directly to the employer?
26. How long after completing NEO training did you find the job?
27. How long were you unemployed and actively looking for work prior to the NEO training?

## **Informant Typology: Livelihood Package Recipients**

Definition of Informant: Recipients of NEO livelihood packages?

*Framing questions:*

1. What vulnerable group is the respondent a part of?
2. Have you received a livelihood package? If so, what does it include?
3. Have you received any training or technical assistance provided by NEO or associated with this livelihood package? If so, what?

*In regards to the resulting impact of micro-grants, in-kind support, cash-for-work and capacity-building interventions provided to highly vulnerable households toward sustainably alleviating poverty (e.g. increase in productivity / the creation of sustainable micro-entrepreneurs, or providing one-time spike in consumption)?:*

4. What is your primary source of income?
5. How have you used your livelihood package?
6. Are you continuing to utilize your livelihood package?
7. What impact has the livelihood package had on your income, if any?
8. Did your livelihood package enable you to purchase goods to address immediate household needs?
9. Have you invested in anything additional to your business as a result of receiving the livelihood package?
10. Is there a market for your product / service related to your livelihood package?

*In regards to the impact of providing grants vs. other types of assistance as a means of addressing project goals?:*

11. How did you qualify to receive the livelihood package?
12. Did you already have anything that was included in the package?
13. Were you engaged in this business before receiving the livelihood package?
14. Have you / do you received any additional donor or government support?
15. Do you know how to use goods provided in your livelihood package?
16. Have you sold any of the items included in your livelihood package?

*In regards to NEO's impact on increasing access to financial services for underserved agricultural and non-agricultural rural producers / processors / service-providers?:*

17. Have you ever applied / qualified / received a loan, or required credit? If so, for what?
18. Are you interested in applying for a loan for business related to your livelihood package?
19. Do you know banks or MFIs in the local area?
20. What is preventing you from accessing credit?

*In regards to the impact of NEO's vocational education and on-the-job training activities on increasing incomes in targeted communities?*

21. What is your current job, or main source of income? Was it the same or different before receiving NEO support?
22. Would you have still had this job or main source of income if you did not receive the livelihood package?
23. What is your income before and after receiving the livelihood package?

24. Do you feel that the livelihood package has had a sustainable impact on your income?

**Informant Typology: Informed Village Residents, Local Leaders**

Definition of Informant: Village residents in communities targeted by the NEO project that have at least general knowledge of the project. Preference is that focus groups combine village residents with a wide spectrum of individuals that may / may not be aware or impacted by the NEO project.

*Framing questions:*

1. Are you aware of the NEO project or has it directly impacted you?

*In regards to general awareness and opinions of the NEO project:*

2. How has the NEO project impacted your community / local area?
3. What is your impression of the assistance that has been provided by NEO?
4. Has anyone you know directly benefited from NEO? If so, how were they able to access the assistance?
5. Is assistance from the NEO project free?

*In regards to the resulting impact of micro-grants, in-kind support, cash-for-work and capacity-building interventions provided to highly vulnerable households toward sustainably alleviating poverty (e.g. increase in productivity / the creation of sustainable micro-entrepreneurs, or providing one-time spike in consumption)?:*

6. Were the people that got assistance from the NEO project rich or poor?
7. Do you know if they were grants, loans, trainings or some other form of assistance provided by NEO? What is best, and why?
8. Do you believe that the assistance provided will have lasting impact, or just provides a one-time benefit for those receiving assistance.
9. Does support to individual farmers or households benefit the overall community, or just one person?

*In regards to new technology / innovations:*

10. Has the NEO project introduced any new technologies to the community? If so, what are they and are people using them?
11. Why didn't people in the community invest in new technologies prior to the project?
12. Do you think that community members will invest more money in these technologies in the future?

*In regards to income and job creation:*

13. Have you seen any new full-time or part-time jobs as a result of the NEO project's assistance? If so, what are they?
14. Are beneficiaries of the project now making more money / income?

*In regards to NEO's impact on group-based production / enterprise:*

15. Have any new or pre-existing groups been formed to work with the NEO project?
16. How are these groups comprised, and for what purpose do they exist?
17. Why or why haven't these groups been successful?
18. Do you anticipate that the groups will continue to operate / cooperate after the NEO project?

*In regards to satisfaction with trainings:*

19. Have you participated in any trainings organized by NEO or NEO beneficiaries?
20. How were you selected for participation, or how did you find out about the training?
21. What is your level of satisfaction with the training?

## 9.6 Annex 6:List of Qualitative Survey Respondents with Location and Contact Details

### Samegrelo (Zugdidi-Tsalenjikha)

| #                            | C2                | Contact info | #                                        | C3                           | Contact info |
|------------------------------|-------------------|--------------|------------------------------------------|------------------------------|--------------|
| <b>Strawberry production</b> |                   |              | <b>Welding</b>                           |                              |              |
| 1                            | Eka Belkania      | 599 43 36 88 | 1                                        | Jogo Gogokhia                | 557 35 05 52 |
| 2                            | Nana Pipia        | 599 27 20 26 | 2                                        | Davit Arakhamia              | 593 22 96 45 |
| 3                            | Miriane Narmania  | 599 92 73 57 | <b>Beekeeping</b>                        |                              |              |
| 4                            | Gocha Chikava     | 558 74 64 70 | 1                                        | Vepkhvia Papaaskiri          | 593 97 37 64 |
| 5                            | Antipo Bukia      | 568 64 57 03 | 2                                        | Zaza Jalagonia               | 555 31 53    |
| 6                            | Ruslan Absandze   | 558 98 31 19 | 3                                        | Oneri Kharchilava            | 079 48 21 15 |
| 7                            | Giorgi Narmania   | 577 17 74 45 | <b>Apparel making</b>                    |                              |              |
| <b>Greenhouse</b>            |                   |              | 1                                        | EkaterineSherozia            | 592 01 08 99 |
| 1                            | Elguja Belkania   | 558 59 00 36 | 2                                        | Nana Kvaratskhelia           | 595 50 69 44 |
| <b>Hazelnut production</b>   |                   |              | <b>Culinary</b>                          |                              |              |
| 1                            | Demur Pipia       | 599 00 94 48 | 1                                        | Lali Shelia                  | 574 72 47 71 |
| 2                            | Davit Berulava    | 577 73 20 73 | <b>Plumber/Tile layer</b>                |                              |              |
| 3                            | Murman Sherozia   | 555 14 14 89 | 1                                        | Irakli Shelia                | 555 16 18 88 |
| 4                            | Zaur Gabunia      | 577 37 24 64 | 2                                        | Goga Rogava                  | 599 16 43 11 |
| 5                            | Tornike Jichonaia | 555 32 96 86 | <b>Hair dresser/ Stylist</b>             |                              |              |
| 6                            | Temur Bokuchava   | 568 98 06 45 | 1                                        | Maia Chkhapelia              | 079 48 21 15 |
| 7                            | Mamuka Kardava    | 593 37 39 61 | <b>Guest House (Gega) in Tsalenjikha</b> |                              |              |
| <b>Local Leader</b>          |                   |              | 1                                        | Giorgi Dzadzamia (The owner) | 568 82 21 98 |
| 1                            | ZazaParjikia      | 599 17 76 25 | 2                                        | Olga Shamugia                | 555 26 35 01 |
|                              |                   |              | 3                                        | Gulnazi Kvaratskhelia        | 593 47 01 81 |

**Mtskheta- Mtianeti**

| # | C2                                                             | Contact information |
|---|----------------------------------------------------------------|---------------------|
|   | <b>Kazbegi open field vegetable and potato seed producers</b>  |                     |
|   | Kaxaber Janukvashvili                                          | 599163734           |
|   | Tamar Davitashvili                                             | 551008579           |
|   | Shorena Davitashvili                                           | 551007698           |
|   | Vladimir Kobaidze                                              | 551475786           |
|   | Natela Rostomauli                                              | 599062911           |
|   | TemuriGudushauri                                               | 551523878           |
|   | Martia Papiashvili                                             | 500190973           |
|   |                                                                |                     |
|   | <b>Dusheti seed potato and GH vegetable/seedling producers</b> |                     |
|   | Avto Arabuli                                                   | 599302081           |
|   | Mevlud Buchashvili                                             | 557242414           |
|   | Ilia Garchaidze                                                | 599136167           |
|   | Cismar Mchedlishvili                                           | 555980722           |
|   | Nugzar lafanashvili                                            | 551226292           |

**Shida Kartli**

| # | <b>C3- Vocational training</b> | <b>Contact information</b> |
|---|--------------------------------|----------------------------|
|   | Nana Kotuashvili               | 790280387                  |
|   | Tsiuri Begiashvili             | 598773477                  |
|   | Ketino Zerekidze               | 595582970                  |
|   | Natela Khachidze               | 555205574                  |
|   | Beka Midelashvili              | 598313858                  |
|   | Dato Lomidze                   | 598604884                  |
|   | Irma Farekhelashvili           | 598724447                  |
|   | Margalita Gogichashvili        | 599378304                  |
|   | Shalva Grigalashvili           | 555570374                  |
|   | Soso Terterashvili             | 599407457                  |
|   | Marine Papunashvili            | 598003437                  |
|   | <b>C3- Gantiadi college</b>    |                            |
|   | Otar Dabrundashvili            | 577900411                  |
|   | <b>C2- Nursery</b>             |                            |
|   | Nukri Papunashvili             | 599491001                  |
|   | Levan Kachkhuashili            | 591700895                  |
|   | Tariel Munjishvili             | 551909220                  |
|   | Amiran Edilashvili             | 596777877                  |
|   | Ioseb Farekhishvili            | 598202246                  |
|   | <b>C2- Vegetable producers</b> |                            |
|   | Malkhaz Kobaladze              | 598552402                  |
|   | Zurab Gogishvili               | 599737699                  |
|   | Nodar Gungliashvili            | 599910193                  |
|   | Iza Okropiridze                | 599188012                  |
|   | Galina Kelekhsaeva             | 599318319                  |
|   | Lela Begeluri                  |                            |
|   | Ioseb Chalauri                 |                            |

## 9.7 Annex 7:Qualitative Interview and Focus Group Discussion Notes

**Informant:** Mr. Kirk Ramer  
**Position:** Chief of party  
**Affiliation:** NEO Project  
**Cell:**  
**Date of Interview:** August 23, 2013

- Mr. Ramer is responsible for overall management of the project
- As major change of the strategy, was identified inclusion of IDP population in second and third component activities of the project. At initial stage IDPs were not eligible for project activities other than fourth component.
- NEO-USAID-GOG have agreed and identified target areas of the project. Priority was given to more poor with high unemployment rate and vulnerable (mountainous areas). Since then no changes experienced.
- Greatest success of comp III is considered vocational training with impressively high rate of employment (70-80%). For second component: creation of fully functional value chains from primary production including marketing.
- Challenges:
  - For component III one of the biggest challenges was to identify vulnerable population with high motivation, dedication and capacity. For this face to face interviews were performed and intensive work by local staff was conducted to make as good choose as possible.
  - Fear of potential beneficiaries to lose social assistance and free health insurance, if participate in programme activities. There were cases when beneficiaries after receiving per diems for training lost their social assistance. Project had to address the relevant gov. inst. to restore the status of participants. This fear also concerns on-the-job training participants.
  - For component II, relines of farmers to grants and less interest of finding other source of funding. Primarily 70% of total project cost was financed by NEO and 30% by applicant. Recently NEO announced request for applications and was asking contribution of 50-70% from farmers. Very few applications were received and follow up showed that farmers had no money and were reluctant to loans. For next year NEO is planning to work more with microfinance institutions to show farmers availability and possible benefits of their cooperation.
- Would change municipalities and even regions. Problem is the fragmentation of land, due to this farmers have limited capacity to compete. Farmers with limited recourses and knowledge have difficulties to compete with bigger producers of other more advanced regions. In order to achieve more considerable and long run impact choosing more advanced regions would be better targets.
- No gender requirements. Participation is not limited or fine tuned to men or women, during outreach staff is trying to make sure women know about activities. During scoring no preferences in gender.
- Up to moment financed VCHs mainly create seasonal jobs and mainly are limited to supported. In order to achieve spread over effect grantees are asked to give for free 10% of produced seedling to other farmers. These activities are expected to generate more jobs. Unfortunately

these kind of indirect beneficiaries are not monitored. Nurseries are expected in long run to trigger new jobs creation as farmers planting new gardens will require labor force.

- For additional strategies to increase spread over other than 10% giving back strategy is to limit NEO contribution in order to give more assistance. However existing strategy is considered good enough.
- In project selection NEO is mainly targeting projects with more beneficiaries, in order to reach max quantity of beneficiaries. Another criteria is for farmers to be able to replicate the activity. For example meteo project with relatively low cost has already 6000 beneficiaries.
- NEO created association, however they are of a limited capacity in management. Next year it is planned to assist them in capacity building to operate as commercial enterprises. In order to improve sustainability critical is considered management. One of the main objectives is to make them more attractive to VCH players though uniting small farmers in associations.
- Seedling production was one of the most successful interventions. Seedlings were distributed to up to one thousand farmers creating considerable number of seasonal jobs. Nurseries created high number of permanent fulltime jobs. Hazelnut past management intervention is expected to have a lot of job creation. As it showed mechanical method of treatment as the most cost effective. Results will be available next year.
- Interventions like meteo stations generate fewer jobs; however they are very effective in production cost savings.
- Focus during the selection of VCH is made on products with high market demand. Most of the VCH supported are high value crops.
- Market demand; profitability and growth potential; number of possible beneficiaries and relatively quick impact.
- Strawberry VCH is considered as most successful. Very quick impact, within few months. Association created is working properly and is increasingly popular as market demand is very high and demand also comes from Abkhazia. Due to high market demand there was even no need for forward agreements with buyers. These buyers were not able to offer market prices.
- Usually most expensive part of the inputs has to be financed by NEO. For ex in green house projects NEO is covering frame of green house.
- Selection is made according to set criteria of prior experience, access to infrastructure, cost share size. Applications are being scored on competitive bases.
- Mainly experience and cost share is taken as indicator for sustainability of the project.
- Smaller beneficiaries are more reluctant to loans. Fear of losing collateral and most of the cases offered interest rate is considered as less affordable.
- Meteo stations been huge success as it was free of charge for farmers and it considerably reduced cost of their production, this was also reflected in increase of beneficiaries. The more expensive the new technologies, is more difficult to farmers to replicate it. In this term NEO is more focusing on less expensive innovations.
- For now NEO is only supporting applicants in access to credit under component III. In case when graduates of vocational training or livelihood package recipients requires some additional equipment they are assisted to get loans from NEO partner microfinance institutions. For CHCA NEO is financing their administrative cost of the organization. AIC is independently provides this services.
- It is planned to promote credit in agricultural direction from next year. As Government started to distribute low interest agricultural loans and NEO is planning to include promotion of this loans in activities. NEO is also planning to work on crop insurance from next year.
- Directions are primarily chosen for high demand.

- Sustainability of assistance provided to vulnerable population is questionable for the moment. Vocational training participants are more promising as these skills are highly demanded in country. Low business sense is the main concern.
- Greatest success of the III component is the ratio of employment in participants of vocational training.
- Selection of geographical areas closer to cities would be more beneficial for the interventions as there are more opportunities of employment.
- Training providers benefit from payment made for the training that helps with their sustainability.

**Informant:** Mr. Saba Sarishvili  
**Position:** Deputy Chief of Party  
**Affiliation:** NEO Project  
**Cell:**  
**Date of Interview:** August 23, 2013

- Mr. Sarishvili is responsible for technical side of the component II and III.
- No major changes in strategy or implementation of the project.
- No changes in targeted municipalities identified at the inception of the project.
- High efficiency of disbursed funds, especially vocational training where 70% got employed, on-the-job training is also promising, but for now it is too early to judge as component just started and there are no graduates to this moment.
- Identification of proper participants is a challenge. Motivation and capacities are difficult to identify. For this reason face to face interviews are conducted with candidates for vocational training and questioners are distributed for on the job and livelihood package component participants. Rigorous selection process is key for the success.
  - All III component participants are benefiting from social assistance of the government. Fear of losing social assistance is in some cases keep possible beneficiaries reluctant to participation in the programme.
- Would have worked with training providers a bit more, as due to geographical reasons NEO is limited in selection.
- No special instrument is used to ensure women participation in any of programme components.

Respondent is covering III component of the programme and preferred to discuss comp III

- Sustainability of the activity is depending on proper selection of beneficiaries. For this reason substantial resources are spent on selection process.
- Greatest success is the ratio of employment of vocational training participants. Whereas short coming is the technical base of colleges providing trainings.
- ?
- Before cooperation with NEO most of the colleges were state owned and were practicing courses financed by government. After becoming commercial these colleges have financial and

curriculum flexibility difficulties. Cooperation with NEO is helping them address both of these difficulties.

**Informant:** Mr. Eduard Shermadini  
**Position:** Agriculture development adviser  
**Affiliation:** NEO Project  
**Cell:**  
**Date of Interview:** August 26, 2013

- Four regions were selected by USAID. Value chain analyzes were conducted in all four regions with participation of NEO staff in order to identify priority VCHs for the regions. Vegetables were chosen as suitable for all four regions. Depending on climatic conditions, open field or green houses were financed. Nurseries for fruits were established and new variety of seedlings imported. All directions were chosen based on market demand, development potential and number of possible beneficiaries.
- Nurseries were assisted with grafting material and irrigation systems.
- Cost share from grantees was mainly operational costs. Low buy in was not considered as possible issue for less sustainability for the respondent as main trigger for sustainability was considered high market demand and applicant's experience in the field.
- VCH assessments were determining VCHs with maximum beneficiaries and high rate of rent ability.
- Following assessment, trainings were conducted in respective fields. Trainings were also used for measurement of interest from population of this particular field. This was followed by call for applications. Decision of granting was made on competitive bases with main criteria as follows: access to relevant infrastructure, cost share amount, number of possible new jobs created, experience and present income. Selected applicants were checked on site by team of experts in relative fields including environmental specialist. NEO technical evaluation committee is scoring the project and after is sent to USAID for final approval.
- All main specifications of assets to be procured are made by NEO, with limited participation of grantees.
- Production processes are monitored and onsite technical assistance is provided.
- Grantees should be registered entities.
- Quarterly monitoring is performed. Monthly monitoring forms are field by grantees, including economic data and jobs created.
- No major changes were observed since inception of the project.
- Geography of targeted areas also did not change.
- Greatest success was considered high number of beneficiaries and new technologies implemented which show high rate of interest and success from local population.
- Main challenge is to pursue farmers in transforming farms towards more advanced technologies and approaches. Demo plots are playing important role in this.

- Project does not foresee any tools for ensuring participation of women; however women are significantly presented in project activities.
- Some influence on local communities other than direct jobs created can be considered. Such as increase of sales for input suppliers and other benefits from increased incomes of grantees.
- In frame of the project few non registered associations are created. Main purpose is to organize farmers in facing challenges together and manage grant. Association chair man is not paid. Main issues are with weak management. Some of the crated associations are having common assets, no difficulties observed so far.
- As main specification of chosen VCHs is high profitability and number of beneficiaries, almost all activities are of big success and important. In terms of job creation open field fruits and vegetable activities are considered as main employer along with nurseries. Meteo station beneficiaries are expected to have considerable cost saving effect in terms of more optimally used chemicals.
- Due to early stage of main activities respondent could not identify most successful VCH for the moment. However strawberry activities are considered as most promising. Berry culture for Samegrelo region was totally new and of high risk as because of no history, no guarantees for success were provided. As it was predicted by specialists from NEO strawberry production developed and provided significant profit to producers. All this triggered interest from population and their engagement in process by increasing number of producers in the region.
- Existing experience of farmers and rural population on loans are negative. Loan is considered as last option for finance attraction. NEO has decided to decrease its share of total project from 70% to 40% in order to increase buy in and sustainability from grantees. Results of the decision will be available in few months.
- In order to overcome the difficulty to pursued farmers to implement new technologies and attitudes, NEO is highly promoting DEMO plots.
- NEO is working on the idea of partnership with loan and insurance providers for the future.
- High market demand is one of the main requirements while choosing VCHs, so all productions assisted by NEO is of high market demand. Few of the products are sold on forward agreements.

**Informant:** Mr. Tshotne Iashvili  
**Position:** Livelihood adviser<sup>7</sup>  
**Affiliation:** NEO Project  
**Cell:**  
**Date of Interview:** August 26, 2013

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<sup>7</sup> Mr. Iashvili is covering third component of the project and answers are respectively provided for the component.

- Like other respondents Mr. Iashvili could not identify major changes in strategy, geography or other fields of the project since inception, other than inclusion of IDPs in second and third components of the programme. Before IDPs were targeted by fourth component of the project and were excluded from others. Decision on inclusion of IDPs was based mainly on fact that fourth component was not sufficiently enough concentrated on income increase of IDPs.
- Greatest success of the project was considered high number of employment after vocational training. Main key to success is well designed package of given knowledge and professional tools for graduates of vocational training.
- Greatest challenges are dealing with irresponsible grantees mistreating gifts received after vocational training. Usually after intervention of project staff and assistance from other graduates situation improves.
  - Also very important is difficulties with social assistance. Fear of losing social assistance in most of the cases restrains possible beneficiaries from participation in project activities.
- On the question what respondent would have changed main issue was flexibility of package amount, especially for livelihood package and a bit more resources allocated to it. For the moment livelihood package is estimated in around 2000 Gel.
- Targeted population in third component should be below 100k points. Points are provided by Ministry of health and social protection. Everyone below this score is socially vulnerable. Scoring is done according to quit sophisticated procedures and is very difficult to define clear lines. This threshold was preferred by respondent to be higher, at 150k. As persons having 100k-150k are very similar in terms of living conditions and sometimes not providing assistance to this group of people does not leave sense of fairness.
- Third component includes three main activities. These are: Vocational training, on the job training and livelihood package.
  - Vocational training: all authorized colleges with appropriate curriculum were eligible for participation in the project. Local staff of NEO in regions has disseminated information on village level with Temi work group and Gangebels. Courses were chosen according to demand from population and labor market.
    - Vocational training participants were chosen after the interviews. Based on training results and final interviews participants receiving tool kits were chosen. All recipients of toolkit had concrete plan of employment. After receiving toolkit they are monitored weather they are following employment plan. All participants received certificate of successful completion of the training. Few receivers of toolkit have addressed CHCA for no interest rate loan in order to procure more sophisticated tools for work.
  - On the job training: in preliminary phase NEO staff was conducting meetings with possible employers. Following discussions questionnaire for possible beneficiaries were prepared. Because of big workload NEO decided to outsource this activity. As a result of the tender two companies (AIC and CIDA) are implementing on the job training and livelihood package activities. Responsibility of these companies includes identification of beneficiaries and future employers. Start up businesses is not priorities, where as expanding businesses get more chances for financing. Cost share from organization in this component varies from 35 to 50 percent. Upper limit of 2k GEL is considered for one

job created. Seasonal job can be considered as employment. Future employee conducts training on its own depending on its needs. AIC and CIDA are monitoring the training process and further development of relations between employer and employee. For the moment only two ladies have finished the course and are employed.

- Livelihood package: AIC and CIDA are working on village level with Temi workgroup and are conducting meetings with possible beneficiaries. Special questionnaire is filled and according to them decision is made. Main criteria are: experience and motivation. Ones who indicate in questionnaire that they want to be employed go to on the job training; ones willing self-employment go for livelihood package. Package value varies from 2k to 2.5k Gel. Once who are most ready to start the activities get financing. Decision on who to finance is made by AIC or CIDA. Respondent was not able to indicate clear criteria for selection.
- On the question on assistance provided to vulnerable population is more sustainable or more on immediate needs oriented, respondent expressed hope for more sustainability. Selection process is aiming at choosing participants which will have more sustainable effect.
- Duration of the vocational training was preferred to be longer than existing two month period, as for some professions two month are rather short.
- Number of vocational training graduates have addressed CHCA for no interest loan and have received it. No other ties to financial institutions were made. CHCA is leaving the market and NEO is working with AIC and is financing administrative expenses of organization for loans to NEO grantees. However AIC is not able to provide loans without interest.
- According to respondent financial benefit of Vocational training providers have not the sole benefit for them. Most of the colleges were financed by government until very recent and they had room for improvement of their flexibility in terms of curriculum and quality of material base. NEO has provided assistance in improving those.

**Informant:** Mr. Gigi Mikabadze  
**Position:** Partner  
**Affiliation:** Ecofarm  
**Cell:**  
**Date of Interview:** September 11, 2013

- Ecofarm is cooperating with up to 150 farmers producing vegetables which have high demand on market as are new for Georgian producers (broccoli, different salads). Ecofarm has just opened packaging facility and has own distribution chain, mainly including hotels and large resellers in Georgia.
- Ecofarm is engaged in NEO activities with vegetable VCH including greenhouse and open field production. They supply grantees with seeds, fertilizers and chemicals needed for seedling production. Inputs are provided on consignment and seedlings are afterwards distributed by Ecofarm to farmers cultivating open field and greenhouse vegetables (broccoli and salad). Seedlings, fertilizer and chemicals are also provided on consignment to farmers and payment to farmers producing seedlings and final product is made after Ecofarm is marketing the product.

- Same approach is used for other farmers in Ecofarm VCH. Only relatively big farmers receive less inputs for consignment.
- Up to 25% of total turnover of Ecofarm is connected to NEO grantees. 60 contracts are signed with grantees and despite mainly organizational and approach to business difficulties, as most of them were subsistence farmers who are trying to move to more commercially oriented structure, Ecofarm is planning to expand activities with NEO grantees due to very high market demand mainly.
- In order to cope with organizational difficulties with farmers, Ecofarm with NEO is assisting them to create and maintain association. Chairman of association of open field vegetable producers in Kazbegi for example is paid by Ecofarm.
- Agreement with farmers includes all possible issues that can be identified at the time of signature. Such as: volume of production to be procured by Ecofarm, price and payment timing, harvest period and size of the product to be harvested.
- Company benefited from relations with NEO mainly by saved cost on administration as gathering such farmers is very difficult. NEO also provided irrigation system and technical support for producers, resulting considerably increased yield.
- Despite few misunderstandings performance of NEO grantees was evaluated as good. Some of the issues concerning harvest period or size of the product to be harvested become problematic, but was solved without damage to either party.
- Diversification of products is not considered for the moment as company is concentrating on products that presence of market is weak, but demand is high. These are mainly products distant for Georgian traditional agriculture.
- As company now is doing much of the work that usually association or cooperative should be doing, it is preferred to invest more in capacity building of association management. In terms of stronger association company will be able to save cost on organizational issues and pay higher price for the product.

**Informant:** Ten Persons  
**Position:** Vocational training graduates  
**Location:** Zugdidi  
**Cell:**  
**Date of Interview:** September 3, 2013

- All participants stated they were unemployed or self employed with very limited income. For two persons in group profession was totally new, for another two it was their existing profession. Rest six participants of the group had already practiced this profession.
- Information about vocational training mainly was received from Gangebelies. Some of the participants saw advertisement in TV, but did not consider they could participate. No clear answer was provided on reasons.
- As a result from vocational training everybody received certificates<sup>8</sup> for completion and some have received toolkits. A criterion for receiving toolkits was not clear to any of the participants.

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<sup>8</sup> Certificate is requested on state financed jobs

Toolkits were according to professions. Beekeepers received all necessary tools for activities, whereas cooks received stove or fridge which is not always enough for activities. Overall group expressed satisfaction with received toolkits. Should be noted that grantees do not participate in design of toolkit.

- None of the participants were employed; however they underlined income increase after courses. Mainly due to the toolkit and certificate that increased their competitiveness on the market.
- Large majority expressed high satisfaction with course although some indicated limited space and therefore not all could participate in practical training or had to wait quite a long time for others. In one occasion graduates of the same profession course, but course was not taken at the same time, received different toolkit. One was satisfied; another said it was worst quality tools possible. NEO was not approached with this issue as graduates considered that gift quality could not be argued.
- Duration of the course was another issue. According to respondents two month training is enough for trainees with some knowledge, but is quite challenging for the once starting from or almost from beginning.
- Vocational training created new source of income only for the two participants who before the training had totally different professions. Income source of the rest of the group was the same but increased.
- Knowledge received is considered as main asset, however whole group underlined that it would be very difficult to use this knowledge without toolkits.
- All participants of vocational training were offered low interest rate loans by AIC. Most of the participants had active loans, not only from AIC. Toolkits received from NEO in most of the cases were sufficient for work; only minor additional investment was required. Cooking was exception as it required much more investment in tools than other professions.
- Whole group properly used the toolkit. Most of the participants have invested more in tools; however given tools in most cases were enough for work.

**Informant:** 8 persons  
**Position:** Agriculture production grantees  
**Affiliation:** strawberry production  
**Date of Interview:** September 3, 2013

- All participants have received production grants. Grants included seedlings of strawberry imported from Spain and irrigation system (drip irrigation system). Contribution from NEO side was 75% which mainly was used for seedlings and irrigation. Contribution from farmers was 25% of total. This included land preparation and other operational costs.
- All grantees were physical entities and were considering themselves as commercial farmers. Some of the grantees applying were asked to become Individual entrepreneurs. These grantees have afterwards cancelled IE and went back to status of physical entities.
- Strawberries were very new direction for all participants and for Samegrelo region in total. Grantees have on average 0.2-0.3 Ha of land.
- Funds used for cost share of the project were own funds of the grantees. Loans were not used for cost share.
- Grantees are participating in almost all trainings organized by NEO. Even ones not connected to field of activity. Onsite consultation upon request is also provided by NEO and is considered very helpful by the grantees.
- Main source of income for all respondents were other than financed by NEO, even though they report 50 to 100% rentability (excluding NEO contribution). Most consider difficult to invest in further development despite high rentability.
- Two persons from the group have received grants from other projects previously and for different activities. Five of eight participants have business and four out of five have agricultural business. All participants with business activities had loans, others are eligible but are not taking due to high interest rates.
- Mainly seasonal jobs are created by projects. All together 8 projects have created 20 seasonal jobs.
- As strawberry is totally new culture for Zugdidi, production is increased noticeably, although very little to fill the demand.
- Again because of very new culture and just started production, all technologies possible for implementation at this stage are implemented. Mainly it is drip irrigation and mulch cover.
- Association was creating with NEO assistance and is managed by two members without cost. For the reasons of creation is considered decrease of production cost and ability to import seedlings. However on questions of membership options or other details concerning association benefits, no clear answer was provided. Sales are also done individually.

**Informant:** Eduard  
**Position:** Greenhouse veg producer  
**Affiliation:**  
**Location:** Tsalenjikha  
**Date of Interview:** September 3, 2013

- Eduard was a physical entity and has registered as Individual Entrepreneur in order to get grant for greenhouse vegetable production. He considers himself as commercial farmer as is oriented mainly on production for sale, although respondent could not tell number of sales he had.
- In frame of the project with NEO, greenhouse of 250 sq.m. was constructed for veg seedlings and vegetable production. 75% of investment was made by project and 25% mainly for operational costs were done by the grantee. Respondent had taken loan for co-financing.
- For 17 years grantee, was engaged in greenhouse vegetable production. All technologies according to the respondent that was possible to implement were implemented during the inception of the project. According to his observations income from activity has increased comparing to before NEO activities, but is not able to tell exact number or rate of increase.
- Project has created 4 seasonal jobs for the period of seedling production.
- Total income of the respondent is divided equally between nuts and vegetable production.
- This type of grant was first for the respondent, however he has participated in training organized by Economic Prosperity Initiative project financed by USAID and has received sprayer.
- Agreement with NEO was not considering any requirements for give-back.
- As before seedling were available for purchase only in Zugdidi, project activity made noticeable impact on seedlings production of Tsalenjikha district (NEO has finance one more greenhouse for same produce near this one).
- All technologies used on site were implemented at inception phase. Grantee has not implemented any other technologies since then. Only considered investment is for greenhouse area increase.
- According to respondent NEO has not linked/trained him with any of financial institutions and there was no need as he already had established relations and had loan.

**Informant:** Giorgi Dzadzamia  
**Position:** On-the-job training employer  
**Affiliation:**  
**Location:** Tsalenjikha  
**Date of Interview:** September 4, 2013

- About NEO project and this particular activity Mr. Dzadzamia found out from presentation made by NEO staff in local Gamgeoba. He filled application form and attached business plan.
- AIC made on site checks three times and after this he got grant.
- From the items listed in grant application NEO has procures 60% and 40% was procured by applicant. Agreement between Mr. Dzadzamia and AIC does not indicate amount of funds for the project, just lists items procured. It also does not give any details of what can be considered under employment (salary min, permanent or seasonal/on demand). Responsibility from the grantee is also not clear from agreement as it only indicates responsibility of grantee to employee two socially vulnerable persons from families with more than 4 parsons, until end of the project. Grantee has found future workers with own sources and could not remember of being told about criteria or having used them (socially vulnerable or family of four or any other) for selection of employees. Mr. Dzadzamia has employed two ladies, one for cleaning and one for cooking. They are working on demand basis, not every working day.
- Training for two ladies was organized by employer in local restaurant, where they were trained in serving gests. According to respondent this training lasted for one month. AIC also conducted one day training onsite.
- AIC performs onsite monitoring, however during monitoring documents are not requested and only visually is checked if these ladies are working. Monitoring timing is agreed with grantee upfront.

**Informant:**  
**Position:** On-the-job training participants  
**Affiliation:**  
**Location:** Tsalenjikha  
**Date of Interview:** September 4, 2013

- One out of two respondents has participated in vocational training provided by NEO before participating in on-the-job training. She has graduated from cooking course and received toolkit which included gas stove, kitchen combine and mixer. Both ladies were socially vulnerable. For second respondent on-the-job training was only activity with NEO.
- Despite statement of employer they have not mentioned training in local restaurant and could only remember one day training provided by two men (ladies were not able to define who they were or which organization they represented). Training included optimal ways of cooking with less cost and timing. For cleaning was “basic rules, like do not enter the room when guest is inside.”
- Both ladies expressed satisfaction with job, however they underlined few draw backs. Mainly it is instability of salary as they are working according to demand. It was first month of work and for cleaning lady salary was less than pension she receives. For both respondents these salaries

were second source of income. Cooking lady was planning to leave the job in following month as according to her, she had better option elsewhere.

- Respondents were not able to remember if they have filled any questioner before recruitment. They do remember interview, but not who was conducting it.

**Informant:** 5 persons  
**Position:** Greenhouse vegetable producers  
**Affiliation:**  
**Location:** Zugdidi  
**Date of Interview:** September 4, 2013

- All respondents have received grants for greenhouse construction with area of 250/500 sq.m. no other option was provided by NEO, although few could and preferred to invest in bigger greenhouses. Main informants were Gamgebelis and neighbors in some cases.
- Following primary request from NEO all of them have registered as Individual Entrepreneurs, however this request than was cancelled. Most considered themselves as commercial farmers as were oriented on sales.
- Interview was made at early stage of their project and it was only second harvest period, therefore sales were relatively small on average 2,000 GEL. Sales are made on forward agreement with company identified by NEO. Main inputs such as seedlings, fertilizers and chemicals are provided by same company on consignment and its price is deducted from sales.
- Funding as in other cases was 75% from NEO and 25% from grantees mainly for operational costs. Cost share was made with own funds only very limited part was bank loan.
- For most of them salads is new direction as is difficult to say if it successful at this early stage, but respondent were optimistic.
- Jobs were created depending on size of the greenhouse, 500 sq.m green houses were generating up to two permanent jobs, whereas 250 sq.m. were covered with family labor force.
- For majority of group income from this business was complementary, only one person identified as main income.
- All respondents were engaged in similar activities before and have not received any other donor support.
- According to respondents benefit of locals from the project is limited to created jobs.
- Produce produced by project was expected to have no to limited impact of local production.
- No new technologies were implemented by farmers as a result of trainings as were not considered needed or worth of cost for implementation mainly due to small scale of production. Mainly trainings were focused on production circles and agronomy.
- Most of the group considered themselves as eligible for loans. One has taken loan for increase of greenhouse area.

**Informant:** 8 persons  
**Position:** Hazelnut producers association  
**Affiliation:**  
**Location:** Zugdidi  
**Date of Interview:** September 4, 2013

- Respondents participated in number of trainings organized by NEO. Mainly trainings were concentrated on production methods and especially past management, as it is considered as crucial in hazelnut production. Most of the trainings had one day duration and included demonstrational part on demo plots.
- Whole group expressed satisfaction with trainings and would participate in more.
- Most useful was considered training on comparison of three kinds of treatment: bio medicine, mechanical and chemical medicine.
- After implementation of new technologies, yield has increased by 50%, but it should not only be tied to new technologies as this year weather conditions were much better comparing to previous. However increase in production is obvious.
- None of the group members have received support from other donors/NGOs.
- Main providers of information were Gamgebelis and NEO staff through presentations in villages.
- Group was familiar with the source of financing for the training (NEO/USAID), but hesitated to say who conducted training. Participants received tools like sprayers, uniform and sometimes even chemicals after trainings.
- Most useful knowledge gained through trainings was past management, respondents identified few key technologies that was unknown before and has sufficiently improved their past management. Short coming was limited attention to information on market situation.
- As projects are in start phase, all affordable technologies were implemented from the beginning. Increase of knowledge revealed advantages of implementing more new and high technologies, however due to limited size plots and price of these technologies they are not considered at this stage. Most of the respondents were not able to further develop technologically without assistance.
- Skills obtained during trainings are considered sufficient for applying new knowledge. Important role played demonstration plots visited in frame of training. Practical examples made choice of moving toward new unknown technologies easier.
- Respondents were not able to provide clear examples for results of applied new skills and technologies, as first harvest was not received yet. In terms of cost saved on production, 50% less chemicals were procured this year. No new jobs created.
- Whole group needed external assistance for expansion of business. Loans were not considered as option due to high interest rate. No training was provided on finance attraction.

**Informant:**

**Position:** Local leader  
**Affiliation:**  
**Location:** Zugdidi  
**Date of Interview:** September 4, 2013

- Respondent provided consultations during assessment of livestock sector by NEO.
- Limited to no impact on community was expressed.
- Main value of assistance provided by NEO was considered technologies and knowhow.
- Respondent was not familiar with direct beneficiaries of the project.
- Assisted people by NEO were medium to poor for respondent.
- Respondent was familiar with grant and training activities of NEO, but he underlined usefulness of trainings with an example of strawberry activity which was not considered before as possible in Samegrelo. Technical knowledge obtained during training are referred to as more sustainable and useful than only grants.
- Benefit for local community is more demonstrational effect of the activities than any other.
- New technologies, as strawberry production and new type of beehives introduces by NEO were interesting and many people are thinking to take over and implement these technologies. Many will do if longer observation proves success of these novelties.
- Respondent was not familiar with any jobs created, increased incomes or groups made by project.
- Respondent have not participated in any of NEO activities.

**Informant:** 8 Persons  
**Position:** Vocational training graduates  
**location:** Gori  
**Cell:**  
**Date of Interview:** September 6, 2013

- Two participants were having the same course done when decided to switch to Vocational training funded by NEO. Three of them had same profession and wanted to deepen the knowledge, whereas rest of the group did not have any profession before this training.
- Gamgeoba was the main information provider; some have also seen stickers with information and date for the meeting in gamgeoba.
- One of the respondents had taken the same course of hairdresser provided by AIC, before taking vocational training by NEO.
- As in other cases of vocational training, participants have received different toolkits for same courses done.
- Most part of the group was self employed, one was expecting to be hired by company of her uncle and three were inactive.
- Whole group observed behavior change towards more commercially oriented, as before they were considering themselves as amateurs of the profession, whereas after certified professionals who are supposed to be paid for their work.

- Lack of information from NEO about course options and other details, as what were the criteria for receiving toolkits, what toolkit will include, were considered as draw back. Some of the receivers of the toolkit already possessed same tools.
- Knowledge obtained was considered as min asset obtained, however whole group agreed that employment without tools would have been very difficult.
- More linkages with employers from NEO side are desired. Training course itself was appreciated by all participants with no problems worth of mentioning.
- Most of the group had linkages with profession they took training in, although most of them were doing it free of charge (cutting hair for neighbors children). After the training income from obtained profession was main income for half of the group. Rest had other incomes or social assistance.
- Only slight increase of incomes was observed.
- All respondents thought course had impact on their incomes as in terms of tools obtained as for documenting their knowledge (certified).
- Only three participants of the group had loans before. Others have never applied.
- Only one participant considered toolkit as enough for work.
- Future investments were planned only from own saving and not from the loans. Mainly due to high interest rates.

**Informant:** Gantiadi  
**Position:** Vocational training provider  
**location:** Gori  
**Cell:**  
**Date of Interview:** September 6, 2013

- College was engaged in similar activities with similar focus group since 2008. Relations with NEO started after collage has become one of the winners of the tender announced for vocational training. As collage was performing similar activities for the government programmes only courses were longer and also this college was engaged with USAID VEG project doing similar activities, they did not have to adapt to NEO as had everything ready. Carpenters profession was added to curriculum.
- Difference between government financed courses and NEO courses are mainly duration of the course and degree obtained. NEO training is for two months and is more oriented on practical training and is awarded with certificate.
- Relations with NEO also provide opportunities for the college to improve the material base as many tools needed are procured by NEO, when governmental funds are not enough for these updates.
- College is not participating in selection of the trainees and is satisfied with selection process NEO is using. For now all participants have received certificates of completion.
- No clear procedures identified of toolkits. Budget of training includes toolkits for every participant, however at the end of the course college and NEO staff decides whom to give toolkit. Decision making is not documented and does not have clear procedures.

**Informant:** Four Persons

**Position:** nursery  
**location:** Gori  
**Cell:**  
**Date of Interview:** September 6, 2013

- All participants were experienced (5-15 years) in agriculture and nurseries. Already for a while they were registered as Individual entrepreneurs and respectively considered themselves as commercial farmers.
- Two of the participants were operating one hectare enterprises as set by the project, two had invested more and increased area.
- Grants were provided with ratio of 75% NEO, 25% grantees, fund amount varies depending on culture ( berry-apples –other fruits) from 28 000 Gel to 38 000 GEL. All participants have financed cost share out of own funds and none used loans, although they all were eligible to take one.
- Coming out of specificity of nursery it is very early to measure success of implemented technologies or economic indicators. First sales were not performed yet.
- For the jobs created: each of the respondents have created three permanent jobs and up to five seasonal.
- All but one respondent have received grants previously from various projects, but not for nursery.
- Agreement with NEO included 10% seedlings give-back to socially vulnerable population.
- Impact on local production is expected in future mainly due to new varieties grown in nurseries. Demand on new seedlings is growing and large majority of gardens are from Soviet Union period and respectively are old plants and need to be replaced.
- As project was just implemented, grantees consider all the needed technologies are on place and no investments than increase of scale is foreseen.
- Only one respondent is planning to take loan for extension of operations, other is more oriented on external possible support. Coming out of past business activities all respondents had previously taken loans for different reasons.
- Only drawback of the programme was considered missed breakage of the production cycle which was not foreseen in inception and in order to keep business operational and not miss one year of sales grantees need to invest more in second ear for grafting materials. This investment is considered difficult at the stage; however all of the grantees plan to invest.

**Informant:** Five Persons  
**Position:** vegetable producers  
**location:** Gori  
**Cell:**  
**Date of Interview:** September 6, 2013

- One of the participants had nursery and along with seedlings was producing tomato's. Rests of the group were IDPs cultivating open field vegetables. All were physical entities. Nursery owner considered himself as commercial farmer, when IDPs were more keen on belonging to subsistence farmers at first, however after additional questions whether they were going to mainly sell the produce or consume made them reconsider the answer and change into commercially oriented farmers.

- Nursery owner was in business for up to twenty years and had turnover of 80-100K GEL. For others it was all new direction.
- All main assets needed for project implementation and in case of IDP also some inputs were provided by NEO, land preparation and labor was to be financed by the grantees.
- Training provided was considered as highly effective. Tomato harvest increased by about 50% in quantity, sales were ongoing and applicant was experiencing difficulties, so income increase was not yet obvious. For IDPs, they were expecting first harvest in few weeks.
- Two jobs were created by nursery. Open field activity due to small scale has not created any jobs other than applicant themselves.
- Only one person from the group (IDP) has received assistance from other donors.
- Nursery owner tried to take loan and was refused due to insufficient collateral. One out of the IDPs had ongoing loan.
- As in other cases, nursery had liability of 10% (seedlings) give-back to socially vulnerable population.
- Mulch technology was implemented by tomato producer after training and had dramatic increase of production and decreased labor in soil treatment measures.
- Tomato production was financed by NEO on 0.5 ha. Applicant invested additionally and increased area to 1ha at the time of inception.
- With NEO support association of open field vegetable producers (mainly IDPs) was created. However three out of four respondents were not aware of this. Association was founded by individuals received grants from NEO and all members are also grantees of NEO.
- No loan training was conducted.
- As identified by one of the participants, a number of vocational training participants (IDPs) are engaged in open field vegetable production component.

**Informant:** 8 Persons  
**Position:** open field vegetable production  
**Location:** Kazbegi  
**Cell:**  
**Date of Interview:** September 7, 2013

- NEO has supported respondents with grants for open field vegetable production. Irrigation system and some other inputs were provided by the project and grantees had to cover labor. From the beginning grantees were offered to be part of the VCH. Chain included delivery of seedlings and needed inputs for production on consignment, forwarded agreement on sales. Price of seedlings is deducted from final payment by buying company (Ecofarm). All other inputs were financed by NEO.
- Association of 23 farmers of Kazbegi district was established. However due to late inception of the project, part of the members used land for other more traditional crops and missed first season for the veg. production. Chairman of the association is paid by Ecofarm.
- All respondents were considering themselves as commercial farmers.
- For all of the respondents this was the first year of vegetable production (broccoli, salad). These cultures are very new to the district.
- Onsite training and on demand consultations provided by NEO were highly appreciated. All grantees admitted they could not have made it without this assistance. Mulch system was adopted and all users were very satisfied.

- No results could be measured for the moment as only few of the respondents had harvest just before the interview. It was difficult to measure as none of them have cultivated same culture so had nothing to compare to. Delays with payment from Ecofarm were identified as main difficulty for the moment.
- Jobs are not created as 0.02 to 0.1ha are cultivated and farmers are coping by themselves.
- For the technologies presented during the training, respondents identified hydroponic greenhouse system which they liked. However do to high price and weather conditions (mountainous region) in was not considered as feasible option for development. All other technologies were possible were implemented by the project. No additional investment from the grantees has taken place.
- None of the respondent had or was going to take loan as considered interest rate too high. No training on loans was conducted by NEO.

**Informant:** 5 Persons  
**Position:** Production grantees  
**Location:** Dusheti  
**Cell:**  
**Date of Interview:** September 7, 2013

- Grants were given for potato seeds and vegetable seedlings and tomato production. 75% from NEO and 25% from grantees. As in other cases greenhouses in seedlings production, potato seeds of elite quality were provided by NEO. Grantees contribution was mainly labor and some inputs.
- Seedling producers were part of the value chain and were supplying open field vegetable producers with seedlings. At this stage all of them expressed worries as open field producers were late with harvest and seedlings at this time were losing quality or were dying.
- Potato seed producers were financed as separate entities with seeds. However after they were united in association and again funded with machinery. One member out of four, were planning to leave association as he was not able to use machinery on his turn as it was not functioning.
- All respondents were physical entities and have not received any other donor or NGO assistance before.
- As it was first year for all respondents any data on harvest or income difference was not available. Tomato producers identified increase of harvest by about 50% due to irrigation and mulch systems implemented in frame of the project.
- Potato seed producers were expecting difficulties in sale as imported seeds were less expensive and most of them were planning to plant the seeds and turn them to regular potatoes in order to increase income.
- Only one respondent has financed his cost share from loan. Others could take the loan, however due to high interest rate have not done so and used own funds.
- All respondents had 10% give-back to vulnerable population agreement with NEO.
- Only seasonal jobs were created.
- Trainings were performed mainly on production cycle and most of the technologies were implemented by project.
- All expressed need of machinery, however due to high price procurement was not considered.
- No training on loans or finance attraction was conducted.

## 9.8 Annex 8: Evaluation Design

For the Component 2 and 3 surveys, we identified four distinct sampling populations, each receiving a different set of project interventions. These four sampling populations include: (1) production grantees, (2) participants in ‘ad hoc’ agricultural trainings under Component 2 and 3, (3) recipients of livelihood packages and (4) participants in vocational educational training programs under Component 3. Each of these four interventions is described at length above in Section 3.

### 9.8.1 Proposed Sample

Our original intention was to conduct the Components 2-3 surveys in the same treatment and control villages where we conducted the Component 1 survey. This, however, proved to be infeasible, owing to the wide dispersion of Component 2-3 activities across project communities and villages and existing budget constraints. Based on our calculations, we could only sample 930 treatment respondents and 930 control respondents (1,860 total) for the Component 2 and 3 evaluation, including 20% oversampling to account for panel attrition. With this in mind, we ran a number of different sampling scenarios and agreed with USAID on the sampling plan shown in the table below.

**Table 16382 Sampling Plan along with MDE Calculation**

| Intervention                             | Sample Size | MDE* <sup>9</sup> |
|------------------------------------------|-------------|-------------------|
| Production grants                        | 126         | 24.4%             |
| Agricultural training                    | 266         | 16.8%             |
| <b>Sub-total Component 1</b>             | <b>392</b>  | <b>13.8%</b>      |
| Livelihood packages                      | 178         | 20.6%             |
| Vocational education                     | 360         | 14.4%             |
| <b>Sub-total Component 2</b>             | <b>538</b>  | <b>11.8%</b>      |
| <b>Total</b>                             | <b>930</b>  | <b>9.0%</b>       |
| *After adjusting for 20% panel attrition |             |                   |

The sampling plan in the above table was calculated based on the following assumptions:

- Outcome variable of interest = Change in the average value of targeted household production (mean value of GEL 6,000).
- Target increase in the outcome variable for Component 2 = 25%.
- Target increase in the outcome variable for Component 3 = 15%.
- Standard deviation of the outcome variable ( $\sigma$ ) = GEL 5,799 (The mean value of the outcome variable is GEL 6,000.)

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<sup>9</sup> The minimum detectable effect is the smallest effect that, if true, has an X% change of producing an impact estimate of key impact variables that is statistically significant at the Y level.

- Proportion of the study sample to the treatment group (T) = 50%.
- Explanatory power of the impact regression ( $R^2$ ) = 0.80.
- Alpha (probability of Type I error) = 0.10
- Single-tailed hypothesis test.

As seen in the above table, the Minimum Detectable Effect for production grants, agricultural training, and vocational education samples falls below the target of 25% in the first two cases and below the target of 15% for vocational education. The MDE for the livelihood package sample, however, exceeds the target for the livelihood package sample by 5.6 percentage points. Taking the Component 2 interventions as a group, the MDE falls comfortably below the 25% target at 13.8%. Similarly, the combined sample of Component 3 interventions falls comfortably below the 15% target at 11.8%. The MDE for the entire Component 2 and Component 3 sample is 9.0%.

The MDE for combined Component 2 and Component 3 samples give us a reasonably high degree of confidence that, if a statistically significant effect exists across the component beneficiaries, our sample will find it. We, nonetheless, would also like to analyze each intervention separately to determine what their individual impact is on the target outcome variables. While we are encouraged that the MDE in three of the four intervention samples falls below the targeted increase in household production, we are less encouraged by the results for the livelihood package sample. Regardless, it appears that we will be unable to structure the sample so that we can generate an MDE below the targeted increase in household production for livelihood package recipients assuming reasonable standards of statistical rigor.

The sampling frame for the treatment group was NEO's list of beneficiaries, which includes the identities, places of residence (region, municipality, village), and contact information for each of its Component 2 and 3 beneficiaries. Owing to (1) the wide dispersion of production grant, livelihood package, and vocational education beneficiaries across project villages and (2) the large sample size required for these three interventions relative to their beneficiary population, we adopted the practical expedient of including all beneficiaries from a particular study village in the treatment sample wherever practical. For the agriculture training intervention, where the beneficiary population significantly exceeds the sample size, we selected survey respondents from each study village at random using the NEO beneficiary list.

Because it was not feasible to try design functional criteria for selecting individual control subgroups for all of four treatment populations (e.g. livelihood treatment and livelihood control), the sample includes single control group instead, which represents the statistical average for households in the sample villages. With a single control group, the sample offers not only the opportunity to make comparisons between the project clients and non-clients, which is the primary objective of the survey, at the survey endline but also to make comparisons at that time between specific groups of clients and the rest of their communities (e.g. how better or worse-off are the livelihood package recipients compared to agricultural training participants or 'all non-clients within the same or neighboring communities).

## 9.8.2 Final Sample

Unfortunately, the original sampling plan found in the table above turned out not to be practical once researchers began the fieldwork. In the end, the survey team was only able to interview 865 treatment households, along with a matching number of 865 control households, which was 6.9% less than planned, even though we increased the number of sampling units (villages) from 50 to 66 during the fieldwork.<sup>10</sup> The main shortages occurred in the vocational education survey, which fell 49 interviews short of the targeted 360 (13.6%), and in livelihood packages survey, which fell 31 interviews short of the targeted 178 (17.4%). We were able to make up some of the loss by increasing the number of production grant and agricultural training respondents in the first case by seven from 126 to 133 and in the second case by eight from 266 to 274. Although there is a considerable loss in the number of vocational education and livelihood package surveys, these losses do not fall below the assumed 20% attrition rate and thus do not impact the baseline. If we can manage to minimize the amount of panel attrition in the endline survey, the loss in information and statistical rigor caused by the baseline sampling difficulties need not be significant.

Once the survey team had received the beneficiary lists from NEO, it invested a good deal of time in filtering the beneficiary lists to eliminate duplicate, incomplete or unclear items on the lists for all four sampling populations. In the end, however, the beneficiary lists had a number of problems that served to severely limit the sampling frame from which we could select the survey participants. These problems include the following.

- *Multiple beneficiaries within households:* There were a large number of cases where two or three beneficiaries belonged to a same household (it is very common in Georgia to maintain the family name after marriage). Because each survey instrument measured a number of household level indicators, it did not make sense to interview more than one person within the same household.
- *Incorrect addresses:* Beneficiaries often did not live at the addresses provided by in the beneficiary list by the time of the interview (e.g., works in Turkey, moved to Tbilisi or Batumi, was conscripted, got married and moved to another region, was jailed, etc.).

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<sup>10</sup> At this point, it is useful to note that in the Evaluation Design Plan for the Component 2-3 survey, we wrote the following, “It is important to note that we cannot rule out the possibility that we will need to make adjustments to the above sampling plan as a result of developments in the field. In particular, if we cannot find/survey the required number of treatment and control respondents in the 50 study villages, it may be necessary to extend the sample to an additional set of villages that did not meet our initial sampling criteria, as described above.”

- *Accidental beneficiaries:* The survey team encountered a few cases where a respondent who, although listed as a beneficiary, actually lived in Tbilisi or another major city and was only visiting relatives in the village, during which time he or she participated in the training.
- *Death:* Two beneficiaries died before the interviewers' visit.
- *Restricted access:* Police did not allow the survey team to enter Artsevi village in Shida Kartli due to security concerns in the area.
- *Out of contact:* The survey team could not locate several of the listed beneficiaries who, for example, were not at home or could not be reached by phone.
- *Refused to participate:* Four beneficiaries refused to participate in the survey.
- *Wrong identities/beneficiaries:* There were a number of cases in which a person was incorrectly listed as a beneficiary. These included people who were invited to an event and introduced to the training materials, but were in no way connected to the field of interest. (For example, one of them was a full-time driver who did not own a land, while another was an IDP, who thought the training was actually a charity event).

Due to the above and other factors, the survey team found it necessary to increase the number of sampling units (villages) from 50 to 66 so as to meet the sampling targets. Despite increasing the number of sampling units by almost by one-third, the survey team was still unable to complete the planned number of treatment and control surveys. In the end, the final sample included 865 observations in both treatment and control groups distributed among the study groups as shown in the following table.

**Table 183 Final Sampling Distribution**

| Intervention          | Size       | MDE*        |                       | Size       | MDE*        |
|-----------------------|------------|-------------|-----------------------|------------|-------------|
| Production grants     | 133        | 21.7%       | Production grants     | 126        | 24.4%       |
| Agricultural training | 274        | 15.2%       | Agricultural training | 266        | 24.4%       |
| Sub-total Component 2 | 407        | 12.4%       | Sub-total Component 2 | 392        | 13.8%       |
| Livelihood packages   | 147        | 20.7%       | Livelihood packages   | 178        | 15.3%       |
| Vocational education  | 311        | 14.4%       | Vocational education  | 360        | 14.4%       |
| Sub-total Component 3 | 458        | 11.7%       | Sub-total Component 3 | 538        | 11.8%       |
| <b>Total</b>          | <b>865</b> | <b>8.5%</b> | <b>Total</b>          | <b>930</b> | <b>0.0*</b> |

*\* After adjusting for 20% panel attrition*

- *NEO had given 186 grants and sub-grants allocated across sectors and locations.*
- *NEO had trained 2,468 farmers*
- *NEO had provided only 19 livelihood packages, but had shortlisted another 320 for the coming year*
- *498 vulnerable persons had participated in one of the NEO-sponsored vocational educational courses*

As seen in the above table, the change in the sampling distribution actually improved the MDE for the production grantee and agricultural trainee samples from 24.4% to 21.7% in the first case and from 24.4% to 15.2% in the second case, while worsening the MDE for the livelihood package sample from 15.3% to 20.7%. The MDE for the vocational education sample remained the same despite the drop in

sample size. The MDE for the consolidated sample also worsened from 0% to 8.5%, although the latter is still well under the performance targets established by NEO.

### **9.8.3 Selecting the Study Villages**

To select the original 50 study villages, we used the following three-step process.

1. We selected project villages that had members of at least two beneficiary groups residing in them.
2. From the villages selected in Step 1, we selected the villages that had at least 20 beneficiaries residing in them.
3. So as to ensure an adequate number of production grantees in the sample, we made minor adjustments to the villages selected in Step 2 by adding four additional villages each in the regions of Mtskheta-Mtianeti, Racha-Lechkhumi and Shida Kartli.

### **9.8.4 Selecting the Survey Respondents (3)**

We used the random walk method to identify and interview the control respondents. Enumerators were given detailed instructions for the start-point of the random walk, directions and the sampling interval. The sampling interval depended on the size of the village and the number of control respondents targeted for that village. Before any interview, the enumerator was required to check if any of the family members was or had been a beneficiary of any of NEO Component 2 or 3 interventions. If so, the enumerator exited the household and continued the route to the next assigned house. Within the control households, the enumerator interviewed the person responsible for household production.

Our goal was to achieve a 1-1 match of treatment to control participations in each study village. As seen in Table 2, however, the actual number of treatment and control participants interviewed in each village did not always achieve a 1-1 match. The reason for this is that survey team was frequently unable to find several of the beneficiaries residing in some of the villages, or there were not enough unique beneficiaries in the villages (e.g., multiple beneficiaries lived in a single household) to meet the sampling target for those villages. The team, therefore, had to look for other treatment respondents in other villages.

Because the sample for the production grant, livelihood package, and vocational education interventions is nearly equal to the total number of beneficiaries, the distribution of survey respondents across study villages is similar to the distribution of beneficiaries for these interventions. In contrast, the number of agriculture training beneficiaries significantly exceeds the sample size. Thus the survey respondents for this intervention are distributed proportionally to the number of beneficiaries across the treatment communities.

### **9.8.5 Spillover Effects**

As mentioned above, the selection of treatment and control individuals/households from the same villages introduces a significant risk of sampling bias via spillover contamination. The likelihood of copying behaviors, when non-beneficiaries copy the new/improved behaviors of project beneficiaries, is significantly greater if the non-beneficiaries live in the same village as the beneficiaries than if they lived in the same community, same region, or in an entirely different location. Spillovers in this case can occur through direct contact with the project beneficiaries, through common social or professional networks, or through word-of-mouth. Again, all of these are far more likely to occur within villages than across villages or across more geographically disbursed locations. As before, to the extent these spillovers exist, the survey will underestimate the actual component impacts.

We will attempt to account for possible spillovers in two ways. First, we include questions in the surveys trying to ascertain whether respondents have received services similar to those provided by NEO, whether from NEO itself or from other service providers. Second, we will use the key informant interviews and FGDs in the endline to probe for the existence and, if they occur, size of spillovers in the control villages and communities for each of the three project components being evaluated. We will make clear our findings, and their implications for our estimates of project impact, in the endline evaluation report.

### **9.8.6 Dealing with Sampling Bias (3)**

There are a number of potential sources of sampling bias in the Component 2-3 sample. To begin with, there are significant gender differences between the treatment and control samples. These differences are less relevant for production grantees, agricultural training and livelihood packages, where the survey questions focus more on household data and production. They are, however, more significant for the vocational education survey, where the survey questions focus more on the individual and individual outcomes.

Women made up 46.6% of treatment respondents for vocational education, compared to 65.8% of the control sample. This difference can be explained by the fact that the treatment respondents were handpicked from beneficiary list and contacted directly (hence the gender distribution in treatment communities was pre-defined), while the control respondents were sampled randomly in a limited geographic scope, representing a common gender distribution in respondents. On top of this, on the days when the survey team worked in a particular village, the men were often unavailable, because they were at work in the fields or elsewhere. (This also helps explain the disproportionate number of women in the other treatment samples.) By way of comparison, the Component 1 baseline, which used a similar random sampling method within the villages, had a gender distribution of 38.2% male to 62.8% female and 38.3% male in the treatment group and a gender distribution of 61.7% female to 38.3 male in the control group. These numbers are very similar to gender distribution for the vocational education sample.

There are also statistically significant differences between the treatment and control households in terms of their economic conditions within the rural economic development sample (production grantees, agricultural trainees, and livelihood package recipients). (At the same time, the treatment and control samples are quite similar in the vocational education sample.) However, similarly significant differences were observed within the treatment groups as well, confirming the unfeasibility of building a single control group that would match the whole of the treatment sample. Control household conditions, therefore, may be very different from one treatment population (e.g. production grantees), but may be similar to another treatment subgroup (e.g. livelihood packages).

Because it was extremely unfeasible for budgetary and other reasons to try design functional criteria for selecting individual control subgroups for all of four treatment populations, we created a single control group instead, which represents the statistical average for household conditions in the surveyed communities. With a single control group, the sample offers not only the opportunity to make comparisons between the project clients and non-clients, which is the primary objective of the survey, at the survey endline but also to make comparisons at that time between specific groups of clients and the rest of their communities (e.g. how better or worse-off are the livelihood package recipients compared to agricultural training participants or 'all non-clients within the same or neighboring communities). The downside of the single control group, however, was that it made it impossible to closely match the control households to the treatment households within each of the four treatment populations. The result is that the match between the treatment and control groups is not as good as we have preferred.

We will take two approaches to account for potential selection bias created by the differences between the treatment and control groups. First, as part of the difference-in-difference analysis after the endline survey, we will measure the project impact and control for observable and unobservable characteristics of the treatment and control sample by regressing the difference-in-difference estimator on a project participation variable and a set of covariates (control variables) believed to be related to project participation and results. This regression equation takes the general form shown below:

$$S = a + bP + cX + \varepsilon$$

Where:

$S$  = difference-in-difference estimator [(a-b) – (c-d)]

$a$  = intercept

$P$  = indicator of project participation that takes on the value of 1 if the respondent is a project participant and a value of 0 if the respondent is not a project participant

$X$  = set of covariates

$\varepsilon$  = error term

This regression equation controls for the observable characteristics of the treatment and control group members as a source of bias, leaving only fixed effects, or unobservable traits correlated with project participation. Provided that these unobservable traits do not vary over time, the regression equation

eliminates them from the analysis producing an unbiased estimate of the project's impact. We have included a broad range of potential covariates in the survey instruments so as to ensure that we can control for the most important sources of bias. By incorporating qualitative evaluations of the treatment and control groups in each survey round, moreover, we should be able to confirm whether key unobservable traits have in fact changed over time.

In addition to the regression analysis described above, we will attempt to analyze the results at the endline using the propensity score matching (PSM) method. PSM can help ensure that the control group is similar to the treatment group before doing the difference-in-difference analysis. A propensity score is defined as the probability that a household in the combined sample of treated and untreated households receives the treatment, given a set of observed variables. If all information relevant to participation and outcomes is observable, the propensity score (or probability of participation) will produce valid matches for estimating the impact of the project interventions. Therefore, rather than attempting to match on all values of the variables, cases can be compared on the basis of propensity scores alone.

## **9.9 Annex 9: Conflict of Interest Forms for Team Members**

Each of the evaluation team members signed a conflict of interest form. These forms, however, exist only in PDF format and thus are not included in this document. They have been provided to USAID separately.