



USAID
FROM THE AMERICAN PEOPLE

GEORGIA

Impact Evaluation of the Georgia New Economic Opportunities (NEO) Project

Report on the Endline Impact Evaluation of NEO's Component 1, 2 and 3 Activities

January 29, 2016

This publication is made possible by the generous support of the American people through the United States Agency for International Development (USAID/Georgia) under the Impact Evaluation for New Economic Opportunities (NEO) Project implemented by Banyan Global, Counterpart International and United Nations Association of Georgia (Contract #AID-114-C-12-00004). The contents are the responsibility of the authors and do not necessarily reflect the views of USAID or the United States Government.

IMPACT EVALUATION OF THE GEORGIA NEW ECONOMIC OPPORTUNITIES (NEO) PROJECT

REPORT ON THE ENDLINE IMPACT EVALUATION OF NEO'S COMPONENT 1, 2, AND 3 ACTIVITIES

Prepared for

United States Agency for International Development (USAID/Georgia)

Prepared By:

Gary Woller, PhD
Patrick Sommerville
Keti Kharatiani
Beka Dzadzamia

January 29, 2016

Banyan Global

1120 20th Street, NW
Suite 950 South
Washington, DC 20036
Tel: 202-684-9367

E-mail: mgriffith@banyanglobal.com

Web: www.banyanglobal.com



**United Nations Association Georgia
(UNAG)**

2 Dolidze St. 4th Fl.
Tbilisi 0171, Georgia
Tel (+995 32) 33 25 16
Fax: (+995 32) 33 11 67;
E-mail: otto@una.ge
Web: www.una.ge



Table of Contents

Acronyms	v
List of Tables	vi
List of Figures	viii
1 EXECUTIVE SUMMARY.....	1
1.1 Background.....	1
1.2 Evaluation Questions and Research Hypotheses	1
1.3 Evaluation Design	2
1.4 Conclusions.....	4
1.4.1 Evaluation Questions	4
1.4.2 Research Hypotheses	8
1.5 Recommendations.....	13
1.5.1 Local Economic Development	13
1.5.2 Rural Development	14
1.5.3 Vocational Education	15
1.5.4 Gender	15
2 INTRODUCTION.....	16
3 NEO PROJECT	16
3.1 Component 1 — Local Economic Development.....	16
3.2 Component 2 — Rural Economic Development.....	17
3.2.1 Production Grants	18
3.2.2 Agricultural Training.....	18
3.3 Component 3 — Assistance to Vulnerable Households	18
3.3.1 Agricultural and Non-Agricultural Training	18
3.4 Vocational Education.....	19
4 EVALUATION QUESTIONS AND HYPOTHESES.....	20
4.1 Evaluation Questions.....	20
4.2 Research Hypotheses	21
5 EVALUATION DESIGN	22
5.1 Quasi-Experimental, Mixed-Methods Design.....	22
5.2 Sampling Plan	23
5.2.1 LED Sampling Plan	24

5.2.2	Rural Development & Vocational Education Sampling Plans.....	27
5.2.3	Final Sample Numbers in the Baseline & Endline Surveys	30
5.2.4	Controlling for Selection Bias.....	30
5.3	Qualitative Methodology.....	35
6	ANALYTICAL APPROACH	36
6.1	Difference-in-Difference Approach	36
6.2	Intepreting the Evaluation Findings	38
7	LIMITATIONS OF EVALUATION DESIGN	40
7.1	Limitations of Quasi-Experimental Designs.....	40
7.2	Limitations of the NEO Evaluation Design.....	41
8	FINDINGS.....	43
8.1	LED FINDINGS	44
8.1.1	Impact of LED Activities on Participants’ Perceptions of Local Government	44
8.1.2	Impact of LED Activities on Participants’ Satisfaction with Local Government	47
8.1.3	Impact of LED Activities on Participants’ Civic Engagement	48
8.1.4	Public Awareness & Perceptions of NEO LED Activities & Instructure Projects.....	50
8.1.5	Qualitative Findings Related to NEO’s LED Activities	52
8.1.6	Gender Impacts of LED Activities	55
8.2	Rural Development Findings.....	57
8.2.1	Impact of Rural Development Activities on Household Income & Subjective Perceptions of Household Financial Conditions.....	57
8.2.2	Impact of Rural Development Activities on Household Coping Strategies & Food Security.....	59
8.2.3	Impact of Rural Development Activities on Household Asset Ownership	60
8.2.4	Impact of Rural Development Activities on Housing Conditions	61
8.2.5	Impact of Rural Development Activities & Vegetables and Grain Production, Sales, Income & Jobs 61	
8.2.6	Impact of Rural Development Activities on Cane Fruit Production, Sales, Income & Jobs.....	63
8.2.7	Impact of Rural Development Activities on Stone Fruit & Hazelnut Production, Sales, Income& Jobs	64
8.2.8	Impact of Rural Development Activities on Bulk Honey Production, Sales, Income & Jobs	65
8.2.9	Impact of Rural Development Activities on Adoption of New Technologies & Practices	65
8.2.10	Rural Development Findings in Context.....	67
8.2.11	Qualitative Findings-Agricultural Grant & Training Beneficiaries	69
8.2.12	Qualitative Findings-Livelihood Package Recipients	72

8.2.13	Impact of Rural Development Activities on Enterprise Sales, Income & Employment	74
8.2.14	Impact of Rural Development Activities on Access to Credit	74
8.2.15	Gender Impacts of NEO Rural Development Activities	75
8.3	Vocational Education Findings.....	75
8.3.1	Impact of Vocational Education Activities on Household Income & Subjective Perceptions of Household Financial Conditions.....	76
8.3.2	Impact of Vocational Education Activities on Household Coping Strategies & Food Security.....	76
8.3.3	Impact of Vocational Education Activities on Household Asset Ownership & Housing Conditions ..	78
8.3.4	Employment Status after Completing the Vocational Education Course	78
8.3.5	Impact of Vocational Education Activities on Wage & Salaried Employment	79
8.3.6	Impact of Vocational Education Activities on Enterprise Self-Employment	79
8.3.7	Impact of Vocational Education Activities on Agricultural Self-Employment	80
8.3.8	Impact of Vocational Education Activities on Access to Credit	80
8.3.9	Satisfaction with Vocational Education Activities	81
8.3.10	Perceptions of the Impact of Vocational Education Training.....	82
8.3.11	Gender Impacts of NEO Vocational Education Activities	82
9	CONCLUSIONS.....	84
9.1	Evaluation Question 1	84
9.2	Evaluation Question 2	86
9.3	Evaluation Question 3	87
9.4	Evaluation Question 4	88
9.5	Evaluation Question 5	89
9.6	Evaluation Question 6	90
9.7	Evaluation Question 7	91
9.8	Research Hypothesis 1.....	92
9.9	Research Hypotheses 2 & 3.....	92
9.10	Research Hypothesis 4.....	93
9.11	Research Hypothesis 5.....	93
9.12	Research Hypothesis 6.....	94
9.13	Research Hypothesis 7.....	95
9.14	Research Hypothesis 8.....	95
9.15	Research Hypothesis 9.....	95

9.16 Research Hypothesis 10.....	96
9.17 Research Hypothesis 11.....	96
9.18 Research Hypothesis 12.....	97
9.19 Research Hypothesis 13.....	98
10 RECOMMENDATIONS	98
10.1 Local Economic Development	98
10.2 Rural Development.....	99
10.3 Vocational Education.....	100
10.4 Gender	101
11 ANNEXES	102
11.1 Annex 1: Evaluation Statement of Work	102
11.2 Annex 2: Statement of Difference	110
11.3 Annex 3: Sample Distribution across Surveys, Municipalities, Communities and Villages	111
11.4 Annex 4: Endline Surveys.....	118
11.5 Annex 5: List of Qualitative Respondents.....	196
11.6 Annex 6: Qualitative Interview Guides	201
11.7 Annex 7: Conflict of Interest Forms for Team Members.....	222

ACRONYMS

APMA	Agricultural Projects Management Agency
CHCA	Charity Humanitarian Center Abkhazeti
CIDA	Canadian International Development Agency
DID	Difference-in-Difference
DPCE	Daily Per Capita Expenditures
EDP	Economic Development Plan
FGD	Focus Group Discussion
GEL	Georgian Lari
GOG	Government of Georgia
IDP	Internally Displaced Persons
KII	Key Informant Interview
LED	Local Economic Development
MED	Municipal Economic Development
MRDI	Ministry of Rural Development and Infrastructure
NEO	New Economic Opportunities Project
OLS	Ordinary Least Squares
OR	Ordinal Logistic Regression
PSM	Propensity Score Matching
RCT	Randomized Controlled Trial
SPSS	Statistical Package for the Social Sciences
UNAG	United Nations Association Georgia
USAID	United States Agency for International Development
USD	United States Dollar
USG	United States Government
VAT	Value-added Tax
VSP	Village Support Program
YEA	Young Economists Association

LIST OF TABLES

- Table 1: Final Distribution of Surveys, KIs and FGDs in the Baseline and Endline Survey Rounds
- Table 2: Component 2-3 Sampling Plan along with MDE Calculation
- Table 3: Final Sampling Distribution
- Table 4: Sample Size in the Baseline and Endline Surveys
- Table 5: PSM Covariate Balance
- Table 6: Baseline and Endline Sample Size by Survey
- Table 7: Impact of LED Activities on Perceptions of Local Government
- Table 8: Impact of LED Activities on Perceptions of Local Government Service Provision
- Table 9: Impact of LED Activities on Participants' Knowledge about Local Government
- Table 10: Impact of LED Activities on Satisfaction with Local Government Services
- Table 11: Impact of LED Activities on Satisfaction with Local Government Officials
- Table 12: Impact of LED Activities on Interest and Involvement in Village Affairs
- Table 13: Impact of LED Activities on Participants' Civic Engagement
- Table 14: Impact of LED Activities on Civic Engagement
- Table 15: Impact of LED Activities on Participants' Perceptions Related to Solving Village Problems
- Table 16: Awareness of EDP Process in Treatment and Control Communities
- Table 17: Awareness and Perceptions of Infrastructure Projects in Treatment and Control Communities
- Table 18: Impact of NEO Infrastructure Projects on Perceptions of Local Government and Civic Engagement
- Table 19: Gender Impact of LED Activities
- Table 20: Impact of NEO Rural Economic Development Activities on Household Income and Subjective Financial Conditions
- Table 21: Impact of NEO Rural Economic Development Activities on Household Coping Strategies
- Table 22: Impact of NEO Rural Economic Development Activities on Household Food Security
- Table 23: Impact of NEO Rural Development Activities on Household Asset Ownership
- Table 24: Impact of NEO Rural Development Activities
- Table 25: Impact of NEO Rural Development Activities on Vegetable and Grain Production and Income
- Table 26: Impact of NEO Rural Development Activities on Vegetable and Grain Production Leakage
- Table 27: Impact of NEO Rural Development Activities on Cane Fruit Production and Income
- Table 28: Impact of Rural Development Activities on Stone Fruit and Hazelnut Production, Sales, Income and Jobs
- Table 29: Impact of NEO Rural Development Activities on Stone Fruit and Hazelnut Production and Income
- Table 30: Impact of NEO Rural Development Activities on Stone Fruit and Hazelnut Production Leakages
- Table 31: Impact of NEO Rural Development Activities on Bulk Honey Production and Income
- Table 32: Impact of NEO Rural Development Activities on Bulk Honey Production Leakages
- Table 33: New Technologies and Practices Included in the Rural Development Survey
- Table 34: Impact of NEO Rural Development Activities on the Adoption of New Technologies and Practices
- Table 35: Absolute Change in Key Outcomes Variables among Rural Development Participants
- Table 36: Impact of NEO Rural Development Activities on Access to Credit

Table 37: Gender Impact of NEO Rural Development Activities
Table 38: Impact of NEO Vocational Education Activities on Household Income and Subjective Financial Conditions
Table 39: Impact of NEO Vocational Education Activities on Household Coping Strategies
Table 40: Impact of NEO Rural Development Activities on Household Food Security
Table 41: Impact of NEO Vocational Education Activities on Household Asset Ownership
Table 42: Impact of NEO Vocational Education Activities on Housing Conditions
Table 43: Employment Status of Vocational Education Participants
Table 44: Impact of NEO Vocational Education Activities on Wages and Salaried Employment
Table 45: Impact of NEO Vocational Education Activities on Enterprise Self-Employment
Table 46: Impact of NEO Vocational Education Activities on Agricultural Self-Employment
Table 47: Impact of NEO Vocational Education Activities on Access to Credit
Table 48: Satisfaction with Different Dimensions of Vocational Education
Table 49: Overall Satisfaction with Vocational Education
Table 50: Perceived Impact of Vocational Education
Table 51: Gender Impact of NEO Vocational Education Activities
Table 52: Number of Jobs and Impact on Jobs Created using Non-Adjusted Job Total

LIST OF FIGURES

Figure 1: Difference-In-Difference Method

Figure 2: Graphical Depiction of the Difference-in-Difference Method

1 EXECUTIVE SUMMARY

1.1 Background

This report presents the findings from the endline impact evaluation of the Georgia New Economic Opportunities (NEO) project. Funded by USAID at an estimated \$20.5 million, NEO is a four-year project based in Tbilisi, Georgia with the objectives of improving rural incomes, reducing poverty, improving food security, addressing production constraints among small-scale agricultural producers, assisting internally displaced persons (IDPs) 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.

1.2 Evaluation Questions and Research Hypotheses

The NEO impact evaluation seeks to answer the following seven Evaluation Questions and 11 research hypotheses:

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?*
- 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?*
- 3. 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?*
- 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 non-agricultural 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?*

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

Research Hypotheses:

1. *Participation in LED activities improves citizens' perceptions of local government.*
2. *Participation in LED activities increases citizens' participation in local government.*
3. *Participation in LED activities increases citizens' level of civic engagement.*
4. *Participation in LED activities improves citizens' perceptions of civic engagement.*
5. *Participation in LED activities increases citizens' awareness of local government services, including who is responsible for delivering those services.*
6. *Participation in LED activities increases citizens' satisfaction with local government services.*
7. *Participation in rural economic development activities improves the food security of beneficiary households.*
8. *Participation in rural economic development activities increases the average value of on-farm and enterprise income among small agricultural producers and vulnerable households.*
9. *Participation in rural economic development activities leads to increased yields of targeted agricultural commodities.*
10. *Participation in rural economic development activities leads to increased adoption of improved production practices among small agricultural producers and vulnerable households.*
11. *Participation in rural economic development activities raises beneficiary households above the minimum subsistence level.*
12. *Participation in rural economic development increases income diversification among vulnerable households.*
13. *Participation in vocational education and on-the-job training activities leads to improved long-term employment among vulnerable household members.*

1.3 Evaluation Design

Under the terms of the evaluation Scope of Work, the NEO evaluation covers three of NEO's four project components: (1) community local economic development (LED) planning, (2) rural economic

development, and (3) assistance to strengthen highly vulnerable households and individuals.¹ The impact evaluation is a longitudinal evaluation using a mixed-methods, quasi-experimental design consisting of three panel surveys covering NEO’s LED, rural development (Components 2-3) and vocational education activities together with qualitative research methods implemented in a baseline and endline evaluation round. Endline survey results were analyzed utilizing a Difference-in-Difference (DID) approach, and provided with context on the basis of qualitative observations.

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 endline sample size of 1,141 treatment respondents consisting of 383 treatment respondents in the LED survey, 485 treatment respondents in the rural development survey and 272 endline respondents in the vocational education survey. The endline evaluation round also included 38 key informant interviews (KIIs) and 22 focus group discussions (FGDs), which were conducted with project beneficiaries and other key project stakeholders (see Table 1).

Table 1. Final Distribution of Surveys, KIIs and FGDs in the Baseline and Endline Survey Rounds

Project Component	Survey Respondents				KIIs		FGDs	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
	Treatment	Control	Treatment	Control				
LED	462	462	383	410	7	19	3	12
Rural production	554	574	485	480	12	19	9	10
Vocational education	312	316	273	261				
Total	1,328	1,352	1,141	1,151	19	38	12	22

As with any quasi-experimental evaluation design, the validity of the evaluation findings hinges critically on how closely control respondents are matched to treatment respondents, which is necessary to reduce the amount of ‘selection bias’ in the sample. In this light, the evaluation design employed three methods to reduce selection bias. First, the evaluation team matched treatment and control villages along a set of selection/matching criteria agreed-on with NEO management. Second, control respondents were matched to treatment respondents in each dataset post-survey using propensity score matching (PSM).

¹ Under Component 4, NEO works with homeowners associations, tenants’ associations, municipal governments and other entities to improve the quality and sustainability of IDP housing.

Third, a series of DID regressions were run for each outcome variable of interest using a fixed-effects estimation model.

Notwithstanding the above procedures, the evaluation design includes a number of limitations that stem from the nature of quasi-experimental design in general and from specific attributes of the NEO evaluation design. The latter set of limitations is largely the result of a number of decisions made and agreed to during the evaluation design phase so as to bring the cost of the evaluation within the allowable budget. A primary practical implication of these design limitations is that each of the three samples may not be sufficiently large to pick up significant impacts that are relatively small in size. This implies in turn that the findings generated through the DID analysis are not necessarily definitive and must be interpreted with a certain degree of caution, particularly regarding findings where there was insufficient evidence to detect an impact. These findings may in fact represent the absence of impact for a particular outcome variable or may represent a case where an impact exists, but it was not of sufficient size to be picked up by the survey. With this caveat in mind, a summary of the primary conclusions and recommendations drawn from the evaluation findings are presented below.

1.4 Conclusions

The main evaluation conclusions are organized below by the seven evaluation questions and 13 research hypotheses listed above. By way of brief summary, the evaluation found a number of significant impacts in each of the three survey populations (LED, rural development and vocational education). As a result, we conclude that participation in NEO's Component 1-3 activities has had a significant and positive impact on: beneficiaries' perceptions of local government, satisfaction with local government, satisfaction with local government officials, and level of civic engagement (LED); on-farm income earned from cane fruit, stone fruit and hazelnut production and share of crops brought to the market (rural development); and beneficiaries engaged in enterprise self-employment and income earned from enterprise self-employment (vocational education).

1.4.1 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?*

The community mobilization process that forms the heart of NEO's LED approach resonated strongly with qualitative respondents in LED communities. Overall, the LED process was well done and closely followed NEO's LED methodology. NEO made good faith efforts to disseminate information about the LED process to community members and local government officials, facilitate participation by a reasonably wide cross-section of community members and engage in a participatory process of developing the communities' LED plans. Those community members of local government officials who participated in the LED process

generally agree that the process was effective in improving the capacity of community members to engage in community-based decision-making; identify common problems, prioritize needs and apply solutions; and engage in resource mobilization and planning.

At the same time, however, the community LED plans examined tended to be vague and contain similar priorities across communities—such as access to mechanization, improvement of animal breeds—that reflected more general country-wide sectoral priorities as opposed to the specific, localized priorities of the NEO LED communities. In the end, the LED plans created with project assistance had limited utility for communities or other stakeholders, either tending to reflect generic priorities, or reflecting back the municipal government’s most probable funding priorities.

NEO was very successful in attracting the (particularly municipal) government’s participation and financing of prioritized infrastructure projects, much more so than was evidenced (or indeed expected) at the baseline stages of the project, and well in excess of project targets. In fact, in several of the LED communities studied, the local government cost share exceeded the minimum 15% cost share required by the project, reaching as high as 50% in some cases, with most of the government funding coming from municipal budgets.

As for the sustainability of the LED process, it is too early still to reach any definitive conclusions, although there are some clues, each of which point to potentially low sustainability. These clues include the following:

- None of the communities examined during the evaluation have updated their LED plans once NEO assistance ended.
- The generic-like content of the LED plans that reflect broader government priorities rather than specific local priorities.
- The failure to integrate the community LED plans in the government’s Municipal Economic Development (MED) plans at the district level. This outcome, combined with the one above it, appear likely to produce a demotivating effect for local community members to continue with the process.
- The low levels of community awareness related to NEO’s LED process, the existence and content of the LED plan, and the NEO-led infrastructure rehabilitation project found in the LED survey.

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?*

The in-kind provision of productive assets under Component 2 and 3 rural development activities had a significant and positive impact on the on-farm income earned by beneficiary cane fruit and stone fruit/hazelnut producers. This improvement in on-farm income, however, has yet to translate directly into increased household income, as measured by Daily Per Capita Expenditures (DPCE) or other objective or

subjective measures of household wellbeing. To the extent that these income gains are sustained, we might reasonably expect this to translate into improved household income and household wellbeing over time. Moreover, in those cases where the small-scale farmers did experience improved on-farm production and income, the in-kind provision of productive assets played a key role in their success.

For livelihood package recipients, the receipt of in-kind assets played an important role in catalyzing the recipients' engagement in the relevant income generating activities and was again a key contributor in those cases where beneficiaries (e.g., greenhouse producers and beekeepers) leveraged the livelihood package assistance to increase their on-farm production and income. In these cases, beneficiaries tended to use the extra income earned to supplement their household consumption, although in some cases they sold the surplus.

- 3. 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?*

Participation in NEO's rural development activities has had a number of positive impacts on participants' on-farm income and production leakage (on-farm production not sold in the market). Most notably, project participation had a positive and significant impact on the on-farm income earned by participant cane fruit and stone fruit/hazelnut producers relative to non-participants. The impact on the on-farm income from these crops was, moreover, large in both absolute and relative terms. Among stone fruit and hazelnut producers, project participation further had a significant impact on the number of on-farm jobs created.

At the same time, however, we are unable to conclude that participation in NEO's rural development activities has impacted on-farm production or sales in each of the four sectors studied, or that it has impacted on-farm income among vegetable and grain producers and bulk honey producers, nor that they had impacted the rate of adoption of new on-farm technologies and practices among project participants.

In terms of job creation, we found a statistically significant increase of 1.4 on-farm jobs among participant stone fruit and hazelnut producers, but found insufficient evidence to conclude that a job impact existed among vegetable and grain, cane fruit and bulk honey producers.

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

Grants were a common means of financing projects across the spectrum of NEO activities. They were frequently coupled with ongoing training and technical assistance. Beneficiaries strongly valued the capacity development and technical assistance that were provided by NEO as part of the grant making process, and that were delivered flexibly on a demand-driven basis. In this respect, we can consider capacity development and technical assistance to be effective means of addressing project goals when taken together. Indeed, qualitative respondents uniformly stressed the importance of the training

received saying that without the training, they would not have been able to perform half as well as they did. Added to this, NEO's careful project selection and delivery of flexible training and technical assistance to accompany grants was a key means of success in this area.

While providing grants and other types of assistance may not have been sufficient to generate significant impacts in all cases; the evidence suggests that they are, nonetheless, necessary components of the intervention package contributing to project impacts where they occurred.

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

NEO worked with IDPs and vulnerable individuals to increase their access to financial services. Owing to their IDP or vulnerable status, however, this group of beneficiaries was not eligible to receive commercial loans. Consequently, NEO adopted the strategy of providing no or low cost loans to them via its implementing partner CHCA for the purpose of investing in project-supported livelihood activities. The idea was that once they started to generate income from their investments and repay their CHCA loans, they would demonstrate their creditworthiness and thus put themselves in a better position to access commercial credit in the future.

Evidence from the qualitative research indicates that this appears to be occurring in certain cases. For example, qualitative respondents in Samegrelo noted that they have since received additional loans from microfinance organizations to expand their businesses, and that their experience borrowing from CHCA has helped them to understand lending and establish a credit history. There thus exists anecdotal evidence that NEO's access to finance interventions were instrumental in helping some IDP and vulnerable beneficiaries access commercial credit for the first time, and they have potentially put others in a position to access commercial credit in the future.

Turning to the quantitative evidence, however, there exists insufficient evidence to conclude that participation in the NEO project facilitated a broad-based increase in access to financial services among participants in NEO's rural development and vocational education activities. To the extent that NEO's access to credit interventions did help IDPs and vulnerable individuals access commercial credit, this impact appears to exist more on a case-by-case than as a generalized phenomenon.

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?*

NEO's support to households under Component 3 has produced a number of significant impacts. First, livelihood support to small-scale agricultural producers under Component 3 has had a significant and positive impact on the on-farm income earned by cane fruit and stone fruit and hazelnut producers. Second, vocational education training provided to vulnerable households has also had a significant impact on the sales and income generated from non-agricultural (enterprise) self-employment. The absolute size

of these impacts is, moreover, large, indicating that, if they are sustained, they can be expected to make a significant contribution to improving the economic wellbeing of participant households and sustainably alleviating their poverty and vulnerability to shocks. Additional income earned from on-farm production activities is, moreover, important in helping beneficiaries address immediate subsistence needs in that most of the extra income earned as a result is used to meet the household's short-term consumption needs.

The financial support and training provided under Component 3 were highly valued by beneficiaries, and in some cases were valued more the livelihood package itself. Beneficiaries of both vocational training and livelihood packages valued training and technical assistance provided directly by NEO project staff, who were both knowledgeable and available. Perhaps the most intangible, but potentially impactful, result of these activities was the extent to which they motivated and catalyzed grantees to expand their activities and engage in new ones. Respondents consistently pointed to increased confidence and stimulus as a result of these activities.

7. Did the project affect men and women in the communities differently?

Overall, we are unable to conclude that the project *systemically* affected men and women differently in the project communities. NEO did not employ any particular emphasis on gender issues or on women's participation. NEO's gender focus was largely limited to disaggregating monitoring data by gender and tracking women's participation. Gender participation in activities tended to reflect local demographics, according to the specific nature of the economic development activity.

Notwithstanding, the gender analysis found a number of instances in all three datasets in which results differed significantly among male and female beneficiaries. Female beneficiaries acquired more favorable perceptions of their local government than did male beneficiaries on a number of outcome variables, while also acquiring less favorable attitudes on several measures of civic engagement. Female vegetable and grain farmers produced more kilograms and created more jobs, stone fruit and hazelnut producers increased on-farm income less, and women beneficiaries overall adopted more new technologies and practices. Among vocational education beneficiaries, household income grew more slowly among female beneficiaries, while female beneficiaries engaged in agricultural self-employment and increased land under cultivation and sales at lower rates. In contrast, female beneficiaries expressed greater satisfaction with the vocational education than did male beneficiaries.

1.4.2 Research Hypotheses

1. Participation in LED activities improves citizen's perceptions of local government.

Participation in NEO's LED activities have had a number of significant positive impacts on how participants perceive their local governments relative to that of non-participants. These include positive impacts in the following areas:

- Perception that local government works well
- Perception that local government spends its money wisely
- Perception that local government is good at solving problems
- Perception that local government is honest and trustworthy
- Perception that local government officials place the needs of the local community over their personal interests
- Perception that local government officials place the needs of the local community over the interests of their political party
- Knowledge about how to contact a local government official

2. *Participation in LED activities increases citizens' participation in local government; and*

3. *Participation in LED activities increases citizens' level of civic engagement.*

Given the overlap between research hypotheses 2 and 3, the conclusions reached apply to both. The findings presented above support the conclusion that participation in NEO's LED activities has had a number of significant and positive impacts on beneficiaries' participation in local government and their level of civic engagement. These positive impacts include the following:

- Frequency of attending a public meeting with a local government official
- Frequency of attending a public meeting of village members
- Frequency of getting together with others to raise an issue or problem
- Frequency of performing volunteer work

4. *Participation in LED activities improves citizens' perceptions of civic engagement.*

The evidence does not support the conclusion that NEO's LED activities have improved citizens' perceptions of civic engagement. The one significant and positive impact in this area was an increase in citizens' perceptions that community members were responsible for solving community problems.

5. *Participation in LED activities increases citizens' awareness of local government services, including who is responsible for delivering those services.*

Overall, the evidence does not support the conclusion that participation in NEO LED activities has had a significant impact on participants' knowledge of their local government nor on how they view the role of their local governments in providing public services. The exception to this finding had to do with the local government's role in providing clean drinking water where a significant and positive impact on citizens' awareness was found. Water provision was the focus of a number of village infrastructure projects, thus suggesting that, in this area, the NEO project did indeed achieve its impact objectives.

6. *Participation in LED activities increases citizens' satisfaction with local government services.*

Participation in NEO's LED activities has had a number of significant positive impacts on beneficiaries' satisfaction with local government services. These positive impacts include the following:

- Satisfaction with local government (in general)
- Satisfaction with interactions with Trustees (Rtsmunebulis)
- Satisfaction with local government provision of clean drinking water
- Satisfaction with local government maintenance of local roads
- Satisfaction with local government illumination of streets/roads
- Satisfaction with local government provision of cultural activities
- Satisfaction with local government maintenance of cemeteries

Notwithstanding the above impacts, the change in respondents' perceptions of their local government's ability to provide responsive services falls below the 20% target as measured by beneficiaries' overall satisfaction with their local government and their average satisfaction score across nine indicators of local government satisfaction. In the first case, their satisfaction scored increased by 12.4%. In the second case, their average satisfaction score increased by 7.1%.

7. *Participation in rural economic development activities improves the food security of beneficiary households.*

The incidence of food insecurity was very low among both treatment and comparison respondents in each of the three study populations at the baseline indicating that both the beneficiary and non-beneficiary samples were drawn from food secure populations. Not surprisingly, therefore, we found little change in food security in both treatment and comparison groups from the baseline to the endline such that there was insufficient evidence to conclude that a widespread impact on food security had occurred.

With that said, there was recurring anecdotal evidence from the qualitative research that livelihood package recipients used the proceeds generated from their project-supported livelihood activities to spend on household subsistence items. Thus while we are unable to conclude that a wide-spread impact on food security occurred, the project's livelihood support interventions do appear to have helped a number of beneficiary households meet their household subsistence needs.

8. *Participation in rural economic development activities increases the average value of on-farm and enterprise income among small agricultural producers and vulnerable households. (Components 2 and 3)*

Participation in NEO's rural development activities did produce significant improvements in the average value of on-farm income earned by cane fruit, stone fruit and hazelnut producers. These improvements were, moreover, both relatively and absolutely large.

9. Participation in rural economic development activities leads to increased yields of targeted agricultural commodities. (Components 2 and 3)

Despite the fact that yields generated by supported farmers consistently increased from the baseline to the endline, these increases were not large enough in relation to non-beneficiary farmers to conclude that NEO's rural development activities had an impact on on-farm yields. Neither can we conclude that NEO has met its target of increasing the average value of household production by 25% for agricultural grants and training beneficiaries, and by 15% for livelihood package recipients.

Qualitatively, KII and FGD respondents who participated in the rural economic development activities and representing the full range of agricultural production activities supported under Components 2 and 3 noted a number of cases in which on-farm yields increased. The qualitative evidence thus supports the existence of positive impacts on on-farm production that cut across the agricultural commodities supported by the project, although this impact appears to exist on a case-by-case basis only.

10. 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)

NEO placed relatively high priority on introduction of new commodities (e.g. strawberry, lettuce) and production practices (e.g. drip irrigation, mulch), and we found a very high level of satisfaction and productivity among beneficiaries of these activities in the qualitative research. In most of these cases, activities had continued and expanded. Importantly, respondents indicated high levels of interest on the part of their neighbors to adopt the same technologies and practices leading to the conclusion that some, albeit unknown, demonstration (spillover) effects via copying did occur.

Nonetheless, the quantitative analysis found insufficient evidence to support a conclusion that the adoption rate of new technologies and practices among project participants was higher than among non-participants suggesting the conclusion that the success stories reported by the qualitative research are more the exception than the norm.

With that said, the strongly counterintuitive nature of this finding (only 0.3 new technologies and practices adopted in the endline) raises the possibility that some miscommunication took place translating the general response categories in the survey questionnaire into the specific technologies and practices adopted by beneficiary farmers and then back again. This explanation, however, is mitigated by the practice adopted in the field by survey enumerators to provide more precise definitions provided by NEO for general response categories judged to be particularly vague.

11. Participation in rural economic development activities raises beneficiary households above the minimum subsistence level. (Components 2 and 3)

Among cane fruit and stone fruit/hazelnut producers participation in the rural development activities translated into a GEL 2,304 (USD 960) (1,052%) increase in on-farm income in the first case and a GEL 3,872 (USD 1,613) (845%) increase in on-farm income in the second case. We thus conclude that participation in the rural development activities has led to a significant improvement in the economic situation of these beneficiary households relative to the minimum subsistence level.

The findings further support the conclusion that rural development activities have helped certain beneficiaries to address immediate subsistence needs in that most of the extra income earned as a result is used to meet the household's short-term consumption needs. This practice has the effect in the short-term of helping the households meet their subsistence needs, while in the long-term, it frees up money to invest in productivity-enhancing assets that will help the households meet or exceed their subsistence needs into the future, assuming these changes are sustained over time.

These on-farm impacts, however, have yet to translate into significant measurable changes in overall household expenditure levels, which serve as a proxy for household income. Thus, for the time being, we are not able to conclude that NEO has met its target to raise 25% of targeted households above the official subsistence level. If, however, current trends among cane fruit and stone fruit/hazelnut producers continue, we have good reason to believe that household incomes among these producers will likewise increase significantly over time raising those households, where relevant, over the minimum subsistence level.

12. Participation in rural economic development increases income diversification among vulnerable households. (Components 2-3)

We conclude that NEO did in fact assist participants and their households to diversify into new income generating activities. Many rural development beneficiaries diversified their skills and production with assistance from NEO. This included agricultural training participants, vocational training participants and livelihood package recipients. Such diversification outcomes were built directly into NEO's assistance strategy. Agricultural training participants learned a variety of new cultivation techniques and were assisted in many cases by NEO to move into new production areas, while many on their own found new distribution channels for their products. Vocational training participants often branched into new product lines and markets, while livelihood package recipients learned to cultivate new crops or keep bees, and enjoyed high quality skills training and technical assistance delivered by NEO.

13. Participation in vocational education activities leads to improved long-term employment among vulnerable household members. (Component 3)

The vocational education activities had a significant impact on participants' employment as evidenced by the large shift among participants from unemployment, paid employment and agricultural self-employment to enterprise self-employment. This shift to enterprise self-employment, moreover, was accompanied by a more than GEL 1,534.32 (USD 639) (60.1%) increase in income earned from enterprise

self-employment relative to non-participants indicating both improved short-term employment and optimistic implications for participant's long-term employment outcomes.

1.5 Recommendations

Proposing recommendations in this case is complicated by the mixed nature of the quantitative findings in each of the three study populations. In this regard, we are assisted by the qualitative findings, which have provided additional insight about which aspects of the intervention designs worked well, which were most valued by beneficiaries and which appeared to be most associated with successful intervention outcomes where they occurred. Recommendations below are grouped into those that recommend the adoption of approaches currently being implemented by NEO and that recommend new approaches not currently being implemented by NEO.

1.5.1 Local Economic Development

Existing approaches

- Continue to utilize professional contractors for technical work associated with infrastructure rehabilitation to maintain high positive perceptions of project quality.
- For activities seeking to engage municipal government, support to infrastructure has clear value in catalyzing their involvement. Expect high levels of cost-share.

New approaches

- Review the utility of LED planning at the community level, as plans tend to be similar across multiple communities and there is weak evidence of their utilization.
- While we do recommend municipal engagement in LED planning, consider disassociating plans and projects due to the evident tendency for those priorities with the most feasible municipal funding prospects to be prominently identified.
- Explore other opportunities to promote the engagement of citizens with government (advocacy, civic education, association development, etc.) beyond LED planning and project prioritization, a strategy that appears to have had limited impact in this area.
- Where LED planning is undertaken, build-in incentives for follow-up and updating of plans.
- Explore synergies beyond the community/municipal link when conducting economic development planning activities, including opportunities to engage other government programs (e.g. VSP), local CSOs, and the private sector.
- Consider strengthened citizen education and outreach efforts to expose community members to mandated governmental planning processes, and make communities more explicitly aware of the existence of such plans and methods of engaging with government (i.e. citizen rights and responsibilities).
- Consider additional initiatives focused on small infrastructure projects. These projects, as implemented by NEO, are highly valued by communities. In terms of public relations objectives, they appear to have tremendous value.

- Consider mandating community cost-share, particularly if community ownership/maintenance of infrastructure assets is desirable. Alternatively, or in addition, include community maintenance planning as an integral part of the infrastructure investment strategy.

1.5.2 Rural Development

Existing approaches

- Link the provision of technical assistance and training with the introduction of new commodities and technologies.
- Vet potential grantees carefully prior to making enterprise development grants. Careful grantee selection may be more important than high cost-share/investment thresholds on the part of the grantee.
- Couple grant-making with a robust menu of training and technical assistance, preferably from sustainable local services providers rather than the project implementer itself.
- Link beneficiaries to local services providers for technical assistance and training and work with the latter to develop their capacity. Training and capacity development for beneficiary farmers and enterprise owners/operators is most sustainable when provided by local service providers rather than the project itself.
- Do not necessarily expect micro-grants, in-kind support and capacity building interventions provided as part of a livelihood support intervention to produce large productivity enhancing and income results. In many cases, this form of assistance is more likely to address important subsistence needs than to generate significant increases in on-farm or enterprise production and income.
- Link toolkits with robust training, ideally from sustainable local sources rather than the project itself. Make sure the training is on-demand, to the maximum extent possible

New approaches

- Contract farming arrangements should be carefully assessed to determine if there is demand among producers for such services prior to engaging in producer/wholesaler linkage creation. More generally, consider expanding interventions on the demand side for agricultural products produced by target farmers in addition to the supply side (production). Even though the contract farming arrangement in this case did not work, there are numerous other options for strategic interventions to create and/or strengthen the commercial linkages between targeted producers and buyers. In the end, without a market to sell their products, targeted farmers are unlikely to continue the production/post-production practices facilitated by the project. This is particularly the case for practices aimed at increasing product quality. Without links to buyers willing to pay a price that captures the value-added of improved quality, there is little incentive for farmers to continue quality enhancing practices or investments.
- Consider expanding interventions in input markets (e.g., seeds, chemicals, equipment, etc.) so as to link targeted farmers with a reliable and long-term supply of critical inputs that are necessary to sustain the production/post-production practices facilitated by the project. Where the project provides in-kind access to production inputs, it is particularly important to ensure that targeted

farmers have access to input suppliers who can replace or repair inevitably worn out or broken equipment.

- Identify opportunities to leverage public and private investments in grant-making activities, potentially building off of existing LED plans and government infrastructure financing priorities.
- Beware that larger value grant recipients may require credit to meet co-financing requirements. These borrowers should be actively vetted and linked to credit sources when appropriate.

1.5.3 Vocational Education

New approaches

- Clarify objectives for vocational training, specifically the extent to which these activities should result in diversification of client bases for individuals already engaged in a specific trade, or enable participants new to the economy and lacking skills to obtain formalized employment.

Existing approaches

- Assess the demand characteristics among intended beneficiaries and design the vocational education training appropriately. This is something NEO did particularly well, and other projects can learn from NEO's experience here. The large majority of NEO's vocational training participants were from rural communities where there are limited opportunities for wage or salaried employment. These rural economies are dominated by family-run microenterprises, which generally do not hire many, if any, outside workers. NEO's approach to vocational education thus focused on enterprise self-employment, as it was clearly identified as the most suitable approach. This focused approach, in turn, proved effective in helping graduates find gainful employment via enterprise self-employment.

1.5.4 Gender

New approaches

- Assess the extent to which project activities need to address gender inequities in particular areas (e.g. governance, community development, economic development, etc.) and build in specific objectives around those inequities wherever warranted. Projects should not expect gender impacts to happen organically, or as a fortuitous result of project implementation, but should have an explicit gender strategy with a set of clear objectives that go well beyond counting or disaggregated results.

2 INTRODUCTION

This report presents the findings from endline impact evaluation of the Georgia New Economic Opportunities (NEO) project. Funded by USAID at an estimated \$20.5 million, NEO is a four-year project based in Tbilisi, Georgia with the objectives of improving rural incomes, reducing poverty, 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.

Under the terms of the evaluation Scope of Work, the NEO evaluation covers three of NEO's four project components: (1) community local economic development (LED) planning, (2) rural economic development, and (3) assistance to strengthen highly vulnerable households and individuals. The impact evaluation is a longitudinal evaluation using a mixed-methods, quasi-experimental design consisting of a panel survey and qualitative research methods implemented over baseline and endline evaluation rounds. The panel survey interviews the same sample of beneficiary (treatment) and non-beneficiary (control) respondents in both baseline and endline survey rounds.

To create the treatment and control groups, we matched a sample of non-project villages to a set of project villages. We then randomly sampled households in each village to participate in the survey using a multi-stage cluster sampling design. In each evaluation round, we further administered a number of purposively selected key informant interviews (KIIs) and focus group discussions (FGDs) to a variety of project stakeholders. The LED baseline round was implemented during June-July 2012, while the Component 2-3 baseline round was implemented during July-August 2013. The endline evaluation round for all three components was implemented simultaneously during May-July 2015. The fieldwork for the Component 2-3 baseline round was divided into two research streams: (1) rural production, which included interventions aimed at increasing agricultural or small business productivity (Components 2 and 3), and (2) vocational education training (Component 3).

3 NEO PROJECT

The NEO project includes the following four components: (1) community LED planning, (2) rural economic development, (3) assistance to strengthen highly vulnerable households and individuals, and (4) promoting sustainability of internally displaced person households being rehabilitated with support from the USG. As mentioned above, the NEO impact evaluation covered only Components 1-3. A brief description of Components 1-3 is presented below.

3.1 Component 1 — Local Economic Development

In partnership with local communities, NEO developed economic development planning tools and assisted target communities to prepare or update existing community economic development plans (EDPs). In

each of its project communities, NEO formed a working group of residents who in turn formed focus groups that identified community priorities in the areas of agriculture, non-agriculture, infrastructure, and social sectors. These priorities, along with options for addressing them, were incorporated into the community's EDP. EDPs are intended to provide NEO with an entry point in target communities and to guide NEO interventions within those communities. To ensure the sustainability of the EDPs, NEO works to develop the capacity of appropriate government personnel and/or community leaders to maintain planning tools, generate plans and measure results. All EDPs are submitted to appropriate municipal governments for inclusion in stand-alone municipal economic development (MED) plans.

NEO applied a number of criteria in selecting its 10 project municipalities and 85 project communities. The most important of these criteria were the presence and share of vulnerable populations, the concentration of IDPs, the share of the population living below the poverty line, the geographic proximity to the conflict zone, the economic potential of the community, and the number of inhabitants in the community.

Within its 10 municipalities and 85 communities, NEO worked with community members to identify and implement specific small-scale infrastructure projects identified in the communities' EDPs, with a priority placed on rehabilitating or upgrading water, sewage, and irrigation systems, and other projects with direct economic benefits. NEO implemented at least one small-scale infrastructure project in each community where it worked.

Whenever feasible, NEO worked with the communities to leverage financing from national or local governments, and from in-kind contributions from beneficiary communities, so as to increase the impact of the small-scale infrastructure projects. Cash-for-work opportunities involving the local unskilled labor force were also implemented whenever feasible. NEO also looked for opportunities to support the adoption of energy efficiency or green technologies where they were in line with the project's overall objectives. Each infrastructure project was required to include an economic impact analysis and a sustainability plan that clearly identified required maintenance, costs, and funding sources.

3.2 Component 2 — Rural Economic Development

NEO sought to promote economic development as a core strategy to increase household production levels, diversify income sources, and create long-term employment opportunities. Using a variety of forms of technical assistance, NEO worked 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 promoted linkages among organized economic entities (e.g., producer associations) that were already operational in its target communities so as to promote economies of scale. The specific types of technical assistance varied according to the economic opportunities and constraints in each community; however, all interventions focused on increasing productivity, eliminating bottlenecks, and strengthening business skills.

Under Component 2, NEO implemented two primary interventions: production grants and agricultural training.

3.2.1 Production Grants

Production grantees were individual farmers who received in-kind grants from NEO to improve their on-farm or enterprise production and income. Production grantees included direct grantees that received grants directly from NEO and sub-grantees who received grants indirectly from NEO through their producer associations, which received the grants directly from NEO. NEO awarded grants and sub-grants to support productive activities in a variety of sectors, including tourism (e.g., guesthouse operation), strawberries, lettuce, seed potatoes, hazelnuts, open field vegetables, and greenhouse fruits and vegetables.

Another type of grantee included under Component 2 was an ‘input-supply grantee.’ These grantees were agricultural producers who received grants from NEO to produce and distribute production inputs, such as seeds or rootstock, to other farmers living in the community. We elected to exclude this group of grantees from the evaluation, as we considered them to be part of an intervention aimed at strengthening the agriculture ‘support markets’ in the target communities, which only affected on-farm production and income indirectly. In contrast, production grants were provided to small farmers for the purpose of directly increasing on-farm production and income.

3.2.2 Agricultural Training

NEO organized ad hoc agricultural trainings around demonstration plots established by the project to promote good cultivation practices across a range of targeted crops. Trainings lasted from one day to several days, depending on the crop and the practice being promoted. Participation in the training was entirely voluntary; NEO disseminated information about the training and invited farmers to attend. Some farmers attended a single training, while other farmers attended multiple trainings. NEO kept detailed records about which farmers attend which trainings.

3.3 Component 3 — Assistance to Vulnerable Households

Under Component 3, NEO provided 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. The project also sought to improve household food security through the use of ‘livelihood packages’ and vocational education.

3.3.1 Agricultural and Non-Agricultural Training

Livelihood packages consisted of a starter-kit for either an agricultural or non-agricultural income generating activity, paired with technical assistance through which the beneficiaries were taught to employ these kits, trained in basic business skills, and monitored regularly to ensure they had the support needed to develop their skills and enhance their income generating activities. Beneficiaries contributed between 5%-30% in-cash or in-kind to their livelihood packages depending on their resources and vulnerability status.

NEO provided 17 agricultural livelihood packages in areas such as aquaculture, animal husbandry (rabbits, poultry, beekeeping), fruit production (strawberries, berries, apples, etc.), vegetable production (open-field and greenhouse), and grain production. Agricultural packages ranged in value from GEL 1,100 (USD 447) to GEL 3,465 (USD 1,440), with an average value of GEL 2,600 (USD 1,081). NEO provided an additional 15 non-agricultural packages in areas such as 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 ranged in value from GEL 520 (USD 216) to GEL 3,000 (USD 1,247), with an average value of GEL 2,100 (USD 873).

A number of livelihood package recipients also received access to loan training offered through NEO's implementing partner Charity Humanitarian Center Abkhazeti (CHCA), and a small number (about 60% of those receiving the training) additionally received small, low-interest loans offered through CHCA. (The livelihood package survey sample was not stratified for whether the recipient received the access to loan training or received loans, as we expect to pick up a proportional number of those with and without training and loans through random sampling.)

NEO worked with community working groups to identify and survey 1,326 potential livelihood package recipients from NEO's 61 active target-communities. In order to qualify as a recipient, households must have displayed a strong commitment and potential for income generation, be registered in a socially vulnerable households database (SSA database) with a score below 100,000 points, have at least four family members who would benefit from the assistance, and have enough able-bodied family members to participate in their preferred activity.

3.4 Vocational Education

Under Component 3, NEO provided vocational education to members of vulnerable households through public vocational colleges or NGOs which NEO supported with grants to offer courses and develop curriculum on trades as diverse as electricity, plumbing, beekeeping, grafting, welding, apparel making, hairdressing, culinary services, and construction. NEO also incentivized 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 received 'toolkits' from NEO consisting largely of tools and equipment needed to carry out the income generating activity. (The vocational education sample does not stratify for whether the recipient received the toolkit, as we expect to pick up a proportional number of those with and without toolkits through random sampling.)

NEO also provided on-the-job training to other vulnerable individuals. Initially our intention was to include this group of beneficiaries in the Component 3 evaluation. Unfortunately, NEO had yet to launch this intervention or identify on-the-job-training participants at the time of the baseline, and thus we elected not to include it in the evaluation.

4 EVALUATION QUESTIONS AND HYPOTHESES

4.1 Evaluation Questions

The NEO impact evaluation is designed to provide rigorous and credible evidence to answer the following research 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? (Component 1)*
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? (Component 2-3)²*
3. *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? (Component 2)*
4. *What was the impact of providing grants vs. other types of assistance as a means of addressing project goals? (Component 2-3)*
5. *What was NEO's impact on increasing access to financial services for underserved agricultural and non-agricultural rural producers/processors/service providers? (Components 2-3)*
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? (Components 2-3)*
7. *Did the project affect men and women in the communities differently? (Components 1-3)*

² During the design and baseline phases of the NEO evaluation, Evaluation Question 2 was understood to apply to NEO's Component 1 LED activities. USAID has since clarified that when it developed this question, the intention was that the income status of community members would be affected primarily by 'in-kind procurements' provided by NEO to its beneficiaries, and not by infrastructure projects. Thus we now understand this evaluation question to apply to the in-kind provision of productive assets to agricultural grantees under Component 2 and livelihood package recipients under Component 3, which are analyzed in this report as part of the rural production survey.

4.2 Research Hypotheses

In addition to the above research questions, the NEO impact evaluation seeks to measure a variety of other research hypotheses related to each of the three project components covered by the evaluation:

1. *Participation in LED activities improves citizens' perceptions of local government. (Component 1)*
2. *Participation in LED activities increases citizens' participation in local government. (Component 1)*
3. *Participation in LED activities increases citizens' level of civic engagement. (Component 1)*
4. *Participation in LED activities improves citizens' perceptions of civic engagement. (Component 1)*
5. *Participation in LED activities increases citizens' awareness of local government services, including who is responsible for delivering those services. (Component 1)*
6. *Participation in LED activities increases citizens' satisfaction with local government services. (Component 1)*
7. *Participation in rural economic development activities improves the food security of beneficiary households. (Components 2-3)*
8. *Participation in rural economic development activities increases the average value of on-farm and enterprise income among small agricultural producers and vulnerable households. (Components 2-3)*
9. *Participation in rural economic development activities leads to increased yields of targeted agricultural commodities. (Components 2-3)*
10. *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)*
11. *Participation in rural economic development activities raises beneficiary households above the minimum subsistence level. (Components 2-3)*
12. *Participation in rural economic development increases income diversification among vulnerable households. (Component 3)*
13. *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:

- *20% increase in adult perception in local governments' ability to provide responsive services. (Component 1)*
- *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 2-3)*

5 EVALUATION DESIGN

This section provides a brief description of the evaluation design, including the sampling plan used, methods used to control for selection bias, the analytical approach taken, and the limitations to the evaluation design.

5.1 Quasi-Experimental, Mixed-Methods Design

The NEO impact evaluation used 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 was surveyed twice, once in the baseline and then again in the endline. Data from these surveys was combined with qualitative information collected through KIIs and FGDs and with secondary information and data from NEO, government sources, and other donor projects working in Georgia to form a more complete picture of NEO performance over time.

The household survey included three separate samples representing three distinct beneficiary populations among NEO clients: LED (Component 1), rural production (Components 2 and 3) and vocational education (Component 3). Because of the inherent differences between the vocational education intervention and the other Component 2-3 interventions (production grants and agricultural and non-agricultural training), which tended to focus on strengthening on-farm and non-farm production activities, it made sense to treat them as separate populations for sampling and analytical purposes.

Whereas an experimental (or randomized controlled trial, or RCT) evaluation design, which randomly assigns households and/or communities to benefit or not benefit from project interventions, would have provided the highest level of rigor possible, this was not a feasible option for the NEO evaluation. At the time of the baseline, NEO had already selected its 85 project communities, thus eliminating the possibility of randomly assigning communities into the project.

In lieu of an experimental design, we used a quasi-experimental research design that matched a sample of control (non-project) villages to a sample of treatment (project) villages, and then randomly sampled households in the control villages to participate in the survey along with a randomly selected sample of Component 1 households or Component 2 and 3 beneficiaries. 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 sought to minimize sources of selection bias caused by observable factors.³

Quasi-experimental designs, however, suffer from a number of weaknesses relative to experimental designs, weaknesses that may be exacerbated by the particular constraints faced by the evaluation team related to budget limitations and logistical challenges. These weaknesses, along with the constraints faced by the Banyan Global evaluation team and limitations to the NEO evaluation design, are discussed at length below.

5.2 Sampling Plan

Ideally we would have used simple random sampling to create the sample of treatment and control households for each of the three survey samples. Simple random sampling is when every eligible household in the target population has the same probability of being selected to participate in the survey. This sampling methodology requires a list of all eligible households in the target population. Unfortunately, no such list existed for the 85 NEO communities. Moreover, budget limitations made a simple random sample covering all 85 of the project communities infeasible.

In lieu of a simple random sample, we used 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. With clustering, fewer communities covering a smaller geographic area are required to make the sample, thus improving the cost-effectiveness of administering the surveys.

On the downside, cluster sampling may not reflect the full diversity of the target population, and it provides less information per observation and higher standard errors than a simple random sample. It thus requires a larger sample size, all else equal, to achieve the same level of precision as a simple random sample. The loss of effectiveness using cluster sampling instead of simple random sampling is known as the 'design effect.' The design effect is the ratio of the actual variance under the cluster sampling method to the variance computed under the assumption of simple random sampling. To compensate for the loss in variability from cluster sampling, the standard practice is to multiply the base sample by the size of the design effect. For well-designed cluster sample, the design effect usually ranges from 1-3.⁴

³The 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 outcomes. 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.

⁴ See, for example, Matthew J. Salganik. (2006). "Variance Estimation, Design Effects, and Sample Size Calculations for Respondent-Driven Sampling." *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 83(7),

5.2.1 LED Sampling Plan

To calculate the LED sample size, we took an iterative approach, which consisted of a number of steps to find a sample size that offered an acceptable level of precision, but which also allowed us to keep the cost of the survey within budget. In fact, the presence of binding budget constraints influenced all aspect of the evaluation design and sampling plan, requiring a number of decisions throughout the evaluation process that involved trade-offs between cost-feasibility and measurement precision.

Assuming a design effect of 2, an estimated proportion of 50%, a confidence (margin of error) of +-5% and a double-tailed hypothesis test, we initially calculated the required LED treatment sample size using the equation shown below:

$$n_{pps} = deff \times \frac{N \hat{p}_{srs} \hat{q}_{srs}}{d^2} = deff \times n_{srs}$$
$$\frac{1}{t_{1-\alpha/2, m-1}^2 (N-1) + \hat{p}_{srs} \hat{q}_{srs}}$$

Where:

n_{pps} = Sample size for cluster sample

n_{srs} = Sample size for simple random sample

N = Population size

p_{srs} = Estimated proportion

$q_{srs} = 1 - p_{srs}$

d = Desired absolute precision (confidence interval/margin of error)

$t_{1-\alpha/2, m-1}$ = T-value for the number of cluster - 1

The above formula produced a treatment sample size of 768 households, which when matched by an equal number of control households produced a total sample size of 1,536. A sample size of 1,536, however, significantly exceeded the budget allocated for the LED survey. After discussing this issue with USAID, the decision was made to accept a lower confidence interval, equal to +-7.1%, which yielded a treatment sample size of 384 and total sample size of 762, again assuming design effect of 2, an estimated proportion of 50% and a double-tailed hypothesis test.

98-112; United Nations. (2005). "Designing Household Survey Samples: Practical Guidelines." Studies in Methods Series F No. 98, Department of Economic and Social Affairs.

We next used data from NEO’s internal monitoring survey to calculate the minimum detectable effect (MDE) of the sample related to NEO’s goal of achieving a 20% increase in the adult perception of local government’s ability to provide responsive services. The minimum detectable effect is the smallest effect that, if true, has an X% probability of producing an impact estimate that is statistically significant at the Y level.

To calculate the minimum detectable effect for the adult perception of local government, we used the method suggested by Bloom (1995), which takes the multiple of the standard error that corresponds to a statistical power of .80,⁵ an alpha of .05,⁶ and two-sided hypothesis test to be used for the impact analysis. The equation to calculate the standard error is shown below. The information to calculate the formula was again taken from the NEO monitoring survey data.

$$\sigma_c = \sqrt{\frac{\sigma^2(1-R^2)}{T(1-T)n}}$$

Where

- σ_c = Standard error of the impact estimator
- σ = Standard deviation of the continuous outcome
- T = Proportion of the study sample to the treatment group
- n = Sample size
- R² = Explanatory power of the impact regression

Plugging the relevant numbers into the above formula yielded a minimum detectable effect of 6.1%. This value is significantly smaller than the 20% increase targeted by NEO for this particular impact variable, indicating a high probability that we would be able to measure whether NEO achieves its targets with relation to this impact variable. We thus concluded after this analysis that a treatment sample size of 384 households (and total sample size of 768 households) would provide the best level of precision possible given existing budget constraints.

In the last step, we increased the sample by 20% to account for anticipated panel attrition. Experience with panel surveys shows that a certain percentage of panel participants can be expected to drop out of the survey between survey rounds for reasons such as death, illness, migration, unavailability or refusal

⁵ Statistical power is the likelihood that the sample will detect an effect when there is an effect there to be detected. A statistical power of .80 means that if there is an effect of size X, then the sample will detect this effect with an 80% probability. Statistical power is equal to 1 - β , where β is the probability of making a Type II error, or concluding there is no effect when, in fact, there is one.

⁶ Alpha, or α , is the probability of making a Type I error, or concluding there is an effect when, in fact, there is not one.

to answer. To determine the expected rate of panel attrition, we consulted other survey organizations that have carried out panel survey research in Georgia, including the Georgian Centre of Population Research (GCPR) and the Institute of Social Studies (ISS). According to these sources, panel attrition is typically in the range of 14-20%, depending, among other things, on geography with a higher attrition rate in mountainous regions. We elected to take the most conservative approach and assume a panel attrition rate of 20%. Incorporating the expected panel attrition rate into the sample size calculations increased the target treatment sample size in project communities for the LED survey from 768 to 922 households with equal amounts in the treatment and control samples.

Once we had finalized the sample size, we next worked with NEO to select the sample communities for cluster sampling approach. To determine the treatment sample size within each of the 10 project municipalities, we allocated the target treatment group sample size of 461 across the 10 project municipalities in proportion to the number of Sakrebulo in each municipality relative to the total number of Sakrebulo across the 10 municipalities. Next, to determine the number of Sakrebulo within each municipality to be sampled, we divided the sample size allocated to each municipality by 20, which was the number of households surveyed in each location, and rounded up to the nearest whole number. Having determined the number of treatment Sakrebulo in each municipality, we next randomly selected that number of Sakrebulo in each municipality to serve as the treatment communities for the evaluation. Finally, we randomly selected one village in each of the treatment Sakrebulo where the survey was to take place.

After selecting the treatment Sakrebulo and villages, we next selected an equal number of control Sakrebulo in each municipality from among the communities where the project did not plan to work. To select the control villages within these communities, the evaluation team worked closely with NEO staff to identify a sampling frame of potential control villages and then to match them to the treatment villages using the following matching criteria: population (we used the 2002 Georgian population census), geographic location, agricultural production patterns, humanitarian/development agency activities (e.g., presence of donor initiatives within the villages), proximity to main highways and administrative borders, and the share of vulnerable and IDP households, as determined by the SSA. The village matching criteria were selected after a series of discussions between the evaluation and NEO management teams for their perceived importance relative to other observable village characteristics, their use by NEO in selecting the project communities, and the availability of relevant secondary data and/or in-depth project knowledge. Having identified the matching criteria, the evaluation team next held a series of discussions with the NEO management team to apply the matching criteria and make the final selection of treatment and control villages. While our sampling plan called for us to select a single control village from each Sakrebulo, in some cases it was necessary to select two small villages instead of one because we could not find other appropriate matches.

Within the treatment and control villages, we selected sample households using the random walk method. A random walk approach to sampling is appropriate where no reliable list of households exists for the village. As applied in this case, the survey enumerators walked through the village and interviewed households at random using the following randomization protocol. In each sample village, the field

supervisor assigned each survey enumerator a starting point and a walking direction in the village. The starting point could be a school building or another easily identified point. Enumerators were instructed to sample the closest household to this starting point and then move to the each Nth household in a randomly selected direction. The size of the sampling interval differed in each village depending on the village size. To determine the sampling interval, the number of households in the village was divided by the desired sample size for that village and adjusted for the expected non-response rate.

5.2.2 Rural Development and Vocational Education Sampling Plans

For the Components 2 and 3 surveys, we identified four distinct sampling populations, each receiving a different set of project interventions. These four sampling populations included: (1) production grantees, (2) participants in ‘ad hoc’ agricultural trainings, (3) livelihood package recipients and (4) participants in vocational educational training programs under Component 3.

Our original intention was to conduct the Components 2-3 surveys in the same treatment and control villages where we conducted the LED survey. This plan, however, proved to be infeasible owing to the wide dispersion of Component 2-3 activities across project communities and villages and existing budget constraints. Under the existing budget constraints, it was only possible to sample a maximum of 930 treatment respondents and 930 control respondents (1,860 total) for the Component 2 and 3 survey, including 20% oversampling for panel attrition.

With this in mind, we ran a number of different sampling scenarios and calculated the MDE for both samples using a similar iterative process used to determine the LED sample size and agreed with USAID on the sampling results shown in Table 2. Sample size calculations were done with regards to NEO’s goal to achieve a 25% increase in the average value of targeted household production for Component 2 participants and a 15% increase in the average value of targeted household production for Component 3 participants, assuming a design effect of 2, statistical power of .80, an alpha of .10, a confidence interval of +-10%, an estimated proportion of 50% and a single-tailed hypothesis test.

Table 2. Component 2-3 Sampling Plan along with MDE Calculation

Intervention	Sample Size	MDE*
Production grants	126	24.4%
Agricultural training	266	16.8%
Sub-total Component 2	392	13.8%
Livelihood packages	178	20.6%
Vocational education	360	14.4%
Sub-total Component 3	538	11.8%
Total	930	9.0%
*After adjusting for 20% panel attrition		

As seen in Table 2, the MDE fell below the target of 25% for production grants and agricultural training survey and below the target of 15% for vocational education survey. The MDE for the livelihood package sample, however, exceeded the target for the livelihood package sample by 5.6 percentage points. Taking

the Component 2 interventions as a group, the MDE fell comfortably below the 25% target at 13.8%. Similarly, the combined sample of Component 3 interventions fell comfortably below the 15% target at 11.8%. The MDE for the entire Component 2 and Component 3 sample was 9.0%.

The MDE for combined Component 2 and Component 3 samples gave us a reasonably high degree of confidence that, if a statistically significant effect (change) of 9% or more existed across the component beneficiaries, our sample would find it. We, nonetheless, also wanted to analyze each intervention separately to determine what their individual impact is on the target outcome variables. While we were encouraged that the MDE in three of the four intervention samples fell below the targeted increase in household production, we were less encouraged by the results for the livelihood package sample. Regardless, we were unable to structure the sample under the existing budget constraints so as to generate an MDE below the targeted increase in household production for livelihood package recipients, assuming reasonable standards of statistical rigor.

The sampling frames for the rural development and vocation education treatment groups were NEO's beneficiary list, which included 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 exceeded the sample size, we selected survey respondents from each study village at random using the NEO beneficiary list.

Because it was not feasible to design functional criteria for selecting individual control subgroups for all of four treatment populations (e.g. livelihood treatment and livelihood control), the sample included a single control group instead, which represented the statistical average for households in the sample villages. When analyzing the survey data and comparing the control group to treatment groups, only those control respondents who were engaged in the same production or livelihood activities as the treatment respondents were included in the analysis.

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, including such things as multiple beneficiaries per household, incorrect addresses, deaths, unavailability, incorrect identities, and refusal to answer.

Due to the above and other factors, the evaluation 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 evaluation team was still unable to complete the planned number of treatment and control surveys. In the end, the baseline final sample included 865 observations

in both treatment and control groups. The distribution of the sample among sampling populations, along with the adjusted MDEs, is shown in Table 3.

Table 3. Final Sampling Distribution

Intervention	Actual Sample Size	MDE*	Intervention	Target Sample 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%
Total	865	8.5%	Total	930	0.0*
*After adjusting for 20% panel attrition					

As seen in Table 3, 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 fell from 0% to 8.5%, although the latter is still well under the performance targets established by NEO.

To select the study villages for the Component 2-3 sample, we used the following three-step process. First, we selected project villages that had members of at least two beneficiary groups residing in them. Second, from the villages selected in Step 1, we selected the villages that had at least 20 beneficiaries residing in them. Finally, 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.

We again used the random walk method to identify and interview the control respondents within the sample villages using the same process described above, although with one significant difference. At the beginning of the interview, the enumerator administered a screening question to determine if any of the family members was or had been a beneficiary of any of NEO Component 2 or 3 interventions and whether any family members were engaged in the activities supported by the project. If the household failed either of the screening questions, the enumerator exited the house 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. The actual number of treatment and control participants interviewed in each village, however, did not always achieve a 1-1 match. The 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 samples for the production grant, livelihood package, and vocational education interventions are nearly equal to the total number of beneficiaries, the distribution of survey respondents across study villages was similar to the distribution of beneficiaries for these interventions. In contrast, the number of agriculture training beneficiaries significantly exceeded the sample size. Thus the survey respondents for this intervention were distributed proportionally to the number of beneficiaries across the treatment communities.

5.2.3 Final Sample Numbers in the Baseline and Endline Surveys

The final LED survey covered 10 municipalities, 42 Sakrebulos and 47 villages, compared to 11 municipalities, 52 Sakrebulos and 67 villages in the rural development survey, and 10 municipalities, 65 Sakrebulos and 65 villages in the vocational education survey. Overall, there were 1,352 treatment respondents in the baseline and 1,151 treatment respondents in the endline (see Table 4). The number of KIIS and FGDs conducted in the baseline and endline, along with the number of FGD respondents in parentheses, are also shown in Table 4. (A detailed breakdown of the survey respondents by components, municipalities, communities and villages during the endline evaluation round is presented in Annex 3.)

The sample size difference between the baseline and endline survey rounds is explained by panel attrition. From the baseline to the endline surveys, overall panel attrition was 15.0%, which is less than the 20% panel attrition rate anticipated in the evaluation design. The panel attrition rates for the LED, rural production and vocational education surveys were, respectively, 14.3%, 15.5% and 16.9%, again less than the 20% expected panel attrition rate in all three cases.

Table 4. Sample Size in the Baseline and Endline Surveys

Project Component	Survey Respondents				KIIs		FGDs	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
	Treatment	Control	Treatment	Control				
LED	462	462	383	410	7	19	3 (42)	12 (31)
Rural production	554	574	485	480	12	19	9 (66)	10 (35)
Vocational education	312	316	273	261				
Total	1,328	1,352	1,141	1,151	19	38	21 (108)	22 (64)

5.2.4 Controlling for Selection Bias

Whereas a quasi-experimental design is a rigorous alternative when an experimental design is not feasible, it does have some drawbacks. The most potentially serious of these drawbacks is that, regardless of which methods are used to match treatment and control respondents, the match will never be perfect. Thus some unknown degree of selection bias inevitably enters the sample. Our research design adopts three methods to limit the degree of selection bias in our three survey samples. The first method was to work closely with NEO management to match the treatment and control villages so as to minimize the

differences between the two groups in terms of the following observable village characteristics: population, geographic location, presence of donor initiatives, proximity to main highways and administrative borders, and the share of vulnerable and IDP households.

This approach worked reasonably well in the LED sample, in which the baseline sample of treatment and control group respondents were nearly identical in terms of household demographic characteristics and household economic conditions. However, it worked less well in the baseline sample of rural development and vocational education respondents judging by the number of statistically significant differences between the two groups, including household size, marital status, age, and gender. In the vocational education baseline survey, control group respondents differed significantly from treatment group respondents in terms of age, household size, gender, marital status, primary source of household income, and education level.

The second method was to match treatment to control respondents in the combined baseline and endline datasets using propensity score matching (PSM). PSM is a statistical matching method that approximates the conditions of an RCT design by creating matched groups with a statistically equal likelihood of exposure to an intervention. With PSM, researchers are able to create intervention and matched comparison groups where the only difference between them is exposure to the intervention. The propensity score is defined as the probability that a unit in the combined sample of treated and untreated units receives the treatment, given a set of covariates (*observed* variables). Use of the propensity score approach increases the accuracy of impact measurement because it controls for unaccounted observable factors that might bias a person to enroll in a program respond favorably to program interventions.

The propensity score is defined as the probability of receiving treatment based on measured covariates:

$$e(x) = P(Z=1 | X)$$

where $e(x)$ is the propensity score, P a probability, $Z=1$ a treatment indicator with values 0 for control and 1 for treatment, the "|" symbol stands for 'conditional on,' and X is a set of observed covariates.

In other words, the propensity score expresses how likely a person is to be selected into the treatment group given observed covariates. This score is useful because it can be used to match participants from the treatment group to participants from the control group who have a very similar estimated propensity score. This matching process creates balance between treated and untreated participants on the propensity score and more importantly is also expected to create balance on the covariates that were used to estimate the propensity score. This balancing property is a key aspect of PSM because a balanced pre-test covariate cannot be a confounder anymore in that it cannot bias the treatment effect estimate. The balance that a randomized experiment is expected to create by design is established with PSM through statistical matching.

One potential downside to doing PSM is that it can reduce the number of observations in the dataset available for analysis. To obtain impact estimates that are generalizable to the population of NEO beneficiaries, it was necessary for the pool of control households to have a sufficient number of observations with characteristics corresponding to those of the treatment households. If the comparison pool is large enough, adequate matches may be possible, even if the average unmatched characteristics

are different. If matches cannot be made, however, it may be necessary to discard households whose characteristics cannot be matched in estimating impacts. If this step results in a large number of discarded households, PSM can have the effect of reducing the effective sample size, potentially leaving too few observations to conduct the analysis at acceptable levels of statistical precision.

In applying PSM to the three survey datasets, we undertook the following analytic steps. First, to identify potential covariates, we ran dozens of logit regressions in each dataset using multiple different combinations of predictor variables with plausible theoretical links to project participation and anticipated outcomes so as to identify those variables that were most robustly associated with project participation. Variables tested included demographic variables, IDP status and a wide range of variables measuring different dimensions of household wellbeing, vulnerability and productive capacity.

Second, having narrowed down the list of possible covariates, we then ran a number of sensitivity tests using the SPSS⁷ PSM function with different combinations of covariates and different distance calipers (maximum allowable difference between two observations) so to determine the 'best' combination of covariates and calipers.

Third, on selecting a final set of covariates and distance calipers, we next estimated the propensity scores and performed the matching procedures for each data set using the nearest neighbor technique, matching with replacement and a caliper of .009. Matching with replacement means that a single observation in the control group can be reused and matched to more than one observation in the treatment group. This approach was adopted to ensure that a sufficient number of observations remained in the dataset to meet our minimum sample size targets. This approach also served to reduce the overall imbalance between the two groups, because the closest possible observation in the control group can be used for matching, even if this observation has been used for a different match.

A caliper is a maximum distance that two units can be apart from each other (on their estimated propensity scores) and is defined in units of standard deviations of the logit of the estimated propensity score. Defining a small caliper will usually result in better balance at the expense of finding fewer units that can be successfully matched. Conversely, a large caliper will retain more matches, but some of them will be slightly imbalanced, and might yield a larger bias in the estimation of the treatment effect. Whenever a caliper is defined each treated unit will be matched to one or more (depending on the options chosen by the user) control unit that is randomly drawn out of all control units that fall within the caliper.

There is little advice in the literature on the choice of a caliper (Lunt, 2013)⁸. Drawing on the results of

⁷ Statistical Package for the Social Sciences (SPSS) is a widely used statistical analysis software package.

⁸ Mark Lunt. (2014). "Selecting an appropriate caliper can be essential for achieving good balance with propensity score matching." *American Journal of Epidemiology*, 179 (2): 226-235.

Cochran and Rubin,⁹ Rosenbaum and Rubin¹⁰ recommend a caliper of 0.25, Austin¹¹ recommends a caliper of 0.20, and Thoemmes¹² recommends a caliper of 0.15. Other researchers, such as Stuart¹³ and Caliendo and Kopeinig,¹⁴ refrain from making any recommendations with regards to an ideal caliper size. A caliper of .009 is more stringent than those recommended in the above studies and was motivated by our desire to improve the quality of the matches achieved given the differences between the treatment and control respondents in the Component 2-3 dataset and, more generally, the sampling challenges encountered in all three surveys. The tradeoff of a more stringent caliper is the potential loss of observations and information from unmatched respondents. So as to minimize this tradeoff, we conducted a series of sensitivity tests to determine the ‘optimal’ caliper that would both meet stringent matching requirements and leave enough observations in the datasets to meet our sample size targets, taking into account the expected panel attrition rate.

Finally, we ran a series of model adequacy checks so as to check whether balance on the covariates was achieved through the matching procedure. Balancing property requirements ensure that when groups are matched based on the propensity score, the average characteristics between the groups are not significantly different. To determine whether this was the case, we ran a series of procedures to test whether the average values of covariates in the treatment and control groups are significantly different from each other. As seen in Table 5, the test values are statistically insignificant in each case, indicating no statistically significant differences in average covariate values between the treatment and control groups and indicating in turn that balance on the covariates has been achieved.

Table 5. PSM Covariate Balance

LED	Test Value*	Rural Production	Test Value	Vocational Education	Test Value
Age of respondent	.43	Sex of respondent	.63	Owns refrigerator	.27
Owns refrigerator	.84	Owns independent heating system	.28	Owns automatic washing machine	.59
Owns satellite dish	.87	Owns motorized insecticide pump	.27	Owns satellite dish	.42

⁹ W.G. Cochran and D.B. Rubin. (1973). “Controlling bias in observational studies: a review.” *Sankhya, The Indian Journal of Statistics*, 35(4): 417–446.

¹⁰ P.R. Rosenbaum and D.B. Rubin (1985). “Constructing a control group using multivariate matched sampling methods that incorporate the propensity score.” *The American Statistician*, 39(1): 33–38.

¹¹ P.C. Austin. (2008). “A critical appraisal of propensity-score matching in the medical literature between 1996 and 2003.” *Statistics in Medicine*, 27(12): 2037–2049.

¹² F. Thommes. (2012). “Propensity score matching in SPSS.” Center for Educational Science and Psychology, Center for Educational Science and Psychology, University of Tübingen.

¹³ E.A. Stuart. (2010). “Matching methods for causal inference: a review and a look forward.” *Statistical Science*, 25(1): 1–21.

¹⁴ M. Caliendo and s. Kopeinig. (2008). “Some practical guidance for the implementation of propensity score matching.” *Journal of Economic Surveys*, 22(1): 31–72.

Sold off productive assets to pay household expenses in last 12 months	.58	Owens landline	.90	Owens tractor	.71
Limited consumption of dairy products due to financial difficulties	.19	Apartment/house provided with internet	.58	Owens mechanical plough	.50
Limited consumption of potatoes due to financial difficulties	.12	Owens mobile phone	.97	Owens trailer	.43
Apartment/house provided with central hot water	.28	Owens cows	.96	Owens hand thresher	.43
Apartment/house provided with central gas supply	.12	Owens pigs	.78	-	-
Own pigs	.66	Owens rabbits	.61		
Own poultry	.28	-	-	-	-

*With one exception, the test values report level of statistical significance associated with chi-square tests. The exception is the age of the respondent, which reports the p value for the corresponding t-test.

Table 6 shows the effective sample size for each of the three survey datasets in the baseline and endline before PSM and then in the endline after PSM, along with the level of panel attrition before and after adjusting for PSM. It is noted there that the number of observations remaining after doing PSM exceeds 80% in each of the three datasets indicating that we successfully met our sample size targets in all three surveys.

Table6. Baseline and Endline Sample Size by Survey

Component	Number Baseline		Number Endline		Number after PSM		% Panel Attrition before PSM			% Panel Attrition after PSM		
	T	C	T	C	T	C	T	C	Total	T	C	Total
LED	462	462	383	410	382	382	82.9%	88.7%	85.7%	82.7%	82.7%	82.7%
Rural production	554	574	485	480	485	463	87.5%	83.6%	85.5%	87.5%	80.7%	84.0%
Vocational education	312	316	273	261	261	256	87.5%	82.6%	83.1%	83.7%	81.0%	82.3%
Total	1328	1352	1141	1151	1128	1101	85.9%	85.1%	85.0%	84.9%	81.4%	83.2%

The third method we use to control for selection bias was through econometric analysis via a fixed-effects regression model (described in Section 8.3) that includes a set of intercept and interaction dummy variables for group participation and time together with a set of control variables (covariates), which

control for the observable characteristics of the treatment and control group members as a source of bias, thus leaving only fixed effects, or unobservable characteristics correlated with project participation, in the estimation model. Fixed-effects regressions, such as the one we use, are useful for data that fall into different observation groups. In such cases, we want to control for characteristics of those groups that might affect the dependent variable. However, we can never be certain that we have all the relevant control variables, so were we, for example, to estimate a simple ordinary least squares (OLS) model, we would have to worry about unobservable factors that are correlated with the variables included in the regression, resulting in omitted variable (or selection) bias. If, however, we set up a fixed-effects regression model and assume that these unobservable factors do not vary within the observation groups over time (a standard assumption), then the fixed-effects regression eliminates the source of omitted variable bias.

5.3 Qualitative Methodology

The qualitative endline research included 38 KIIs and 22 FGDs, for a total of 66 participants, conducted from April to June 2015. This research built on previous baseline qualitative research conducted during the baseline evaluation round. Local expert Beka Dzadzamia conducted all KIIs and FGDs with Banyan Global providing guidance and general oversight. The qualitative research included all four regions covered by NEO, including Samegrelo-Zemo Svaneti, Racha-Lechkhumi, Shida Kartli and Mtskheta-Mtianeti. The specific locations, along with the beneficiary KII and FGD participants, were selected at random and matched to the maximum extent possible to the same proportion of the quantitative survey treatment sample.

In addition to KIIs and FGDs conducted with project beneficiaries, we also conducted KIIs with NEO management and staff in addition to a number of randomly selected project-affiliated service providers. Overall, stakeholder groups covered by the endline qualitative research included the following (for a detailed list of qualitative research participants, see Annex 5):

- NEO management
- NEO staff
- Service providers
- Informed village residents
- LED Plan working group members
- Non-process participants
- Agricultural productivity grantees
- Vocational / on-the-job training participants
- Vocational / on-the-job training providers
- Livelihood package recipients

To analyze the qualitative data, the evaluation team created detailed summaries of all KIIs and FGDs drawing on a combination of audio recordings and interview notes. The evaluation team next conducted a thematic analysis of the summaries organizing them into recurring themes and sub-themes associated

with each of the evaluation questions and research hypotheses.

6 ANALYTICAL APPROACH

6.1 Difference-in-Difference Approach

To measure the impact of NEO interventions on the outcomes of interest using the household survey data, we used the difference-in-difference (DID) approach. The DID approach is a common analytical method used for both experimental and quasi-experimental longitudinal datasets. The approach compares the change in a particular outcome from the baseline to the endline within the treatment group to the change in the same outcome over the same period of time within the control group. Referring to Figure 1, the DID estimate, and NEO’s impact on the outcome variable of interest, is equal to $(a - b) - (c - d)$, or the degree of change among the treatment group compared to the degree of change among the control group. The DID approach assumes that the change in the relevant outcomes among the treatment subjects would have the same trend as among the comparison subjects.

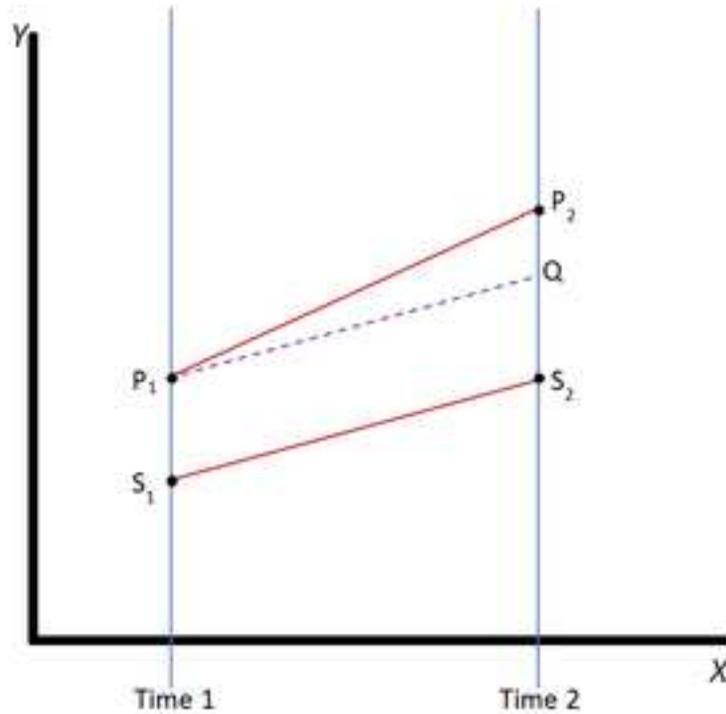
Figure 1. Difference-In-Difference Method

	Treatment	Control
Baseline	a	c
Endline	b	d

It is worth re-emphasizing here that the DID approach evaluates the change in the treatment group relative to the change in the control group—it does not evaluate the level of absolute change in the treatment group. In the DID approach, it is not uncommon to observe a large absolute change in the treatment group that is, nonetheless, not statistically insignificant once it is compared to the change in the control group.

Figure 2 presents a graphical depiction of the DID method. The line P represents the treatment group, while the line S represents the control group. Both groups are measured on the outcome (dependent) variable at Time 1 (baseline) before either group has received the treatment, represented by the points P_1 and S_1 . After the treatment group then receives the treatment, both groups are again measured at Time 2 (endline). Not all of the difference between the treatment and control groups at Time 2 (the difference between P_2 and S_2) can be explained as being an effect of the treatment, because the treatment group and comparison group did not start out at the same point at Time 1. The DID method calculates the ‘normal’ difference in the outcome variable between the two groups (the difference that would still exist if neither group experienced the treatment), represented by the dotted line Q. Note that the slope from P_1 to Q is the same as the slope from S_1 to S_2 . The treatment effect is the difference between the observed outcome and the ‘normal’ outcome (the difference between P_2 and Q), which is in turn equal to the difference in the slope between line Q and P_2 .

Figure 2. Graphical Depiction of the Different-in-Difference Method



For each outcome of interest, we estimate the DID value (or coefficient) and its statistical significance by regressing the outcome of interest on a set of variables using a fixed-effects regression model that takes the following form:

$$O = a + bP + cT + d(P*T) + fX + \varepsilon$$

Where:

O = Outcome of interest.

a = Intercept.

P = Indicator of NEO participation that takes on the value of 1 if the respondent is a NEO participant and a value of 0 if the respondent is not a NEO participant.

T = Indicator of time that takes on the value of 1 if the observation is made in a treatment year (endline) and a value of 0 if the observation is made in a non-treatment year (baseline).

$P*T$ = Interaction term created by multiplying P times T . This term is equal to 1 if the respondent is a NEO participant and the observation is made in a treatment year, and 0 otherwise.

X = Set of covariates (control variables). The set of covariates are unique for each of the three survey populations and are the same set of covariates used for propensity score matching.

ε = Error term.

The coefficient for P^*T , or d , is the DID coefficient of interest in our analysis, and is equal to the amount by which the average outcome in the treatment group has changed relative to the average outcome in the control group. (Alternatively, P^*T is a slope dummy variable, and its coefficient d measures the change in slope among the treatment group measured in Figure 2 by $P_2 - Q$.) The direction and statistical significance of d tells whether the average change in the treatment group is greater or lesser than the average change in the control group, by what amount, and whether this difference is statistically significant. Where this difference is statistically significant, we can conclude that the difference, after controlling for other factors, can be attributed to project participation.

6.2 Interpreting the Evaluation Findings

In interpreting the evaluation findings, the reader should keep in mind the relative roles of quantitative and qualitative data in the analysis. The quantitative data, derived from the three household surveys, has been designed (with the limitations described above) to be representative of the relevant target population, and is thus used to generalize findings about project impact to the entire target population. Owing to its small sample size, the qualitative data derived from the KIIs and FGDs is inherently not representative of the target population and thus cannot be used to generalize findings to the entire population. Rather, its purpose in the analysis is to understand better how the project has impacted specific individuals within the relevant target population and the process by which this impact has occurred. In cases where the quantitative and qualitative data conflict, this does not mean that the one is valid and the other invalid, but rather that changes occurring at the individual level may not be shared widely enough among project beneficiaries to be picked up at the population level, or alternatively, that significant changes at the population level may not be universally shared at the individual level.

The primary method for generating findings at the population level is the DID regressions, which are run for multiple outcome variables in each of the three survey datasets. Depending on the nature of the dependent variable—whether it is continuous, dichotomous or ordinal—DID regressions are run using one of three methods: ordinary least squares, logistic regression, and ordinal logistic regression.

Ordinary least squares (OLS) is a method for estimating the unknown parameters in a linear regression model with a continuous dependent variable, with the goal of minimizing the differences between the observed responses in the dataset and the responses predicted by the linear approximation of the data. Visually this method is represented by the sum of the vertical distances between each data point in the set and the corresponding point on the regression line; the smaller the differences, the better the model fits the data.

Logistic regression (logit) is used when the dependent variable is dichotomous. Logistic regression measures the relationship between the categorical dependent variable and one or more independent variables by estimating probabilities using a logistic function. Logit can be seen as a special case of generalized linear model, and is thus analogous to linear regression. Logit is useful for situations in which we want to be able to predict the presence or absence of a characteristic or outcome based on values of a set of predictor variables.

Ordinal logistic regression (OR) is used to predict an ordinal dependent variable given one or more independent variables. It can be considered as a generalization of binomial logistic regression. As with other types of regressions, ordinal regression can also use interactions between independent variables to predict the dependent variable. In this case, the dependent variable is the order response category variable and the independent variable may be categorical or continuous. The ordinal scales used for the DID analysis range in each case from worse to better outcomes (e.g., a score of 1 indicates the worst outcome and a score of 5 indicates the best outcome).

The primary statistic of interest in the quantitative analysis is the DID coefficient, which measures the direction, size and statistical significance of NEO's impact on the outcomes of interest. In the analysis that follows, we restrict our presentation to reporting and assessing the DID coefficient so as to answer the relevant evaluation questions and research hypotheses.

In interpreting the DID coefficient, there are three possible findings: insufficient evidence of impact, positive impact, and negative impact. For all DID regressions, the null hypothesis is 'no impact,' and thus when the DID coefficient is insignificant, this means that there is insufficient evidence to reject the null hypothesis. Given the limitations in the evaluation design described above, a finding of insufficient evidence does not indicate definitive proof of no impact, but rather indicates that the evidence does not allow us to infer that any impact occurred.

A finding of positive impact occurs when the DID coefficient is both positive and statistically significant, while a finding of negative impact occurs when the DID coefficient is both negative and statistically significant. In both cases, a statistically significant DID coefficient means that sufficient evidence exists to reject the hypothesis and conclude that the project has had a significant impact on the relevant outcome variable in either a positive or negative direction. In analyzing the DID coefficients, we consider coefficients with a statistical significant level of .10 or better to be evidence of a statistically significant impact.¹⁵

As a final comment, it should be noted that we ran DID regressions on multiple outcome variables, often measuring different dimensions of the same outcome. We did this because there is no universal agreement on which outcome variable is the 'best' measurement, and we thus wanted to see how robust findings were across different outcome measures. It is not our expectation that all variables measuring a particular outcome must be statistically significant to conclude that a significant impact has occurred. At the same time, however, significant findings that are robust across multiple outcome measures offer, in

¹⁵ A file with a set of comprehensive tables showing the baseline and endline responses for each question in the LED, rural development and vocational education surveys, before adjusting for PSM, will be provided in conjunction with this report.

our view, stronger evidence for impact. Our analysis subsequently takes into account both perspectives and seeks to strike a balance between them.

7 LIMITATIONS OF EVALUATION DESIGN

In this section we discuss the limitations of the evaluation design described above. The limitations described below fall into two general categories. The first category includes the limitations inherent to quasi-experimental designs, while the second category includes the limitations specific to the NEO evaluation design.

7.1 Limitations of Quasi-Experimental Designs

Quasi-experimental designs have, among others, two primary limitations. The first limitation is that they (typically) match only on observable group characteristics, whereas unobservable group characteristics can be as or more important in determining both membership in the treatment group and the success of the treatment. In the context of the NEO evaluation, potentially important unobservable characteristics can exist both at the community level and at the household or individual level. At the community level, unobservable characteristics may include, for example, the community's vulnerability status, the nature of social cohesion among community members, or the quality of local government institutions. At the household or individual level, important unobservable characteristics may include, for example, the entrepreneurship, ambition, or risk orientation of household members. By their nature, quasi-experimental designs are not capable of accounting for all potentially important unobservable community or households/individual characteristics.

The second limitation is that, no matter what matching criteria are used and how strictly they are applied, no match is perfect with regards to observable characteristics. There invariably remains some degree of variation with regards to observable group characteristics, in addition to unobservable characteristics. Thus even the best quasi-experimental designs retain some unknown level of selection bias, meaning that one can never know for certain to what degree observed impacts were indeed caused by project participation.

With this said, there are methods to compensate for these limitations of quasi-experimental designs. We have employed three of these methods in this evaluation: matching on observable characteristics, PSM and fixed-effects DID regressions. With regards to the matching, there always exists the concern that the matching criteria may not cover all the important observables. With this in mind, the Banyan Global evaluation team worked closely with the NEO management team to identify a set of key observable matching criteria, which NEO itself used to select its control communities for the LED survey, including the communities' IDP status, which is a measure of community vulnerability or social and economic marginalization. It is important to note, however, that NEO did not always apply these matching criteria in a strict fashion, deferring at times to the recommendations of municipal officials, so there was bound to be some slippage in the matching process. (Note, however, that for the rural development and vocational education surveys, the control respondents were selected from the same communities as the

treatment respondents meaning that selection bias introduced through community matching procedures was not an issue.)

The process used to conduct the PSM analysis, however, was aimed specifically at compensating for any slippage that might have occurred in the matching process. We did this by conducting lengthy and detailed sensitivity tests to select the covariates used for the PSM analysis involving a wide range of household demographic, wellbeing and productive capacity variables, together with a stringent matching criteria (narrow caliper). In the end, however, some unknown degree of selection bias inevitably remains in the three survey samples, as is common with quasi-experimental designs generally.

A further limitation that applies to any survey-based design of this nature, which asks detailed and intimate questions about respondent's household conditions and productive activities, is that respondents often have any number of incentives to withhold information or provide misleading information. In this case, for example, many NEO beneficiaries are registered in a GOG socially vulnerable households database, which potentially creates reluctance on their part to disclose information about an increase in their incomes or spending, as they may believe that such disclosure could lead to their loss of welfare payments provided by the government.

To mitigate against this possibility, as well all other potential sources of misleading information, all survey enumerators participated in an in-depth training prior to beginning the survey in which they were trained in every aspect of survey administration. While in the field, field supervisors reviewed each completed survey each day to check for completeness, coding accuracy and other irregularities. Finally, during the data analysis, all survey data were subjected to a complete cleaning process, which, among other things, looked for response patterns suggesting data irregularities. As a result of this process, we did not detect evidence that significant or widespread data irregularities existed.

7.2 Limitations of the NEO Evaluation Design

The NEO evaluation design, and particularly its sampling plan, have their own set of limitations due largely to a number of decisions made during the design stage, each with its own set of tradeoffs. Before discussing these limitations, however, it is helpful to consider the context in which these decisions were made. The primary contextual consideration was the limited budget available relative to the evaluation scope, which covered three project components and multiple activities within each of those three components.

Early on the Banyan Global evaluation team discussed with USAID the possibility of reducing the evaluation scope to fewer project components and/or fewer sets of activities within those components, but the decision was made to keep the evaluation scope as is. In light of this decision, the evaluation team engaged in a collaborative process with USAID and NEO to develop a research design that both kept the evaluation cost within existing budget constraints and satisfied minimum standards of statistical rigor. Within this context, a number of critical decisions were made during the evaluation design process, each of which introduced important limitations or potential limitations, in the evaluation design. These decisions, and their implications, are described below.

- (1) The beneficiary populations falling under Components 1, 2 and 3 comprised three distinct sampling populations with each receiving distinct project services aimed at achieving a distinct set of outcomes, thus requiring in turn a distinct survey instrument. Although important differences existed between beneficiaries receiving agricultural grants and training under Component 2 and livelihood assistance under Component 3, each was receiving assistance to improve their agricultural or non-agricultural productivity and income. Thus the decision was made to include them in the same sampling population and survey them using the same survey instrument. In lieu of this decision, and given the mandate to include all three project components in the household survey, a fourth sampling population would have been necessary, which would have pushed the cost beyond the available budget. In the end, it was agreed to survey the following three treatment populations: (1) households within LED community (Component 1); (2) beneficiaries receiving assistance to increase on-farm and off-farm productivity and income, including agricultural grant and training beneficiaries and livelihood package recipients (Components 2-3); and (3) vocational education beneficiaries (Component 3).

An important trade-off of this pragmatic decision was that it limited the sample size that could be attained in each of the three surveys, otherwise the overall sample size would have exceeded what was possible given the existing budget. A practical implication of this trade-off was that it made it necessary to accept lower levels of statistical precision (e.g., confidence interval of $\pm 7.1\%$ in the LED sample, and a confidence interval of $\pm 10\%$, an alpha of .10 and single tailed hypothesis test in the rural development and vocational education samples) and lower minimum detectable effects, thus making it more difficult in the latter case to find significant effects of project interventions, particularly smaller ones, to the extent they occurred.

An additional trade-off of including agricultural grant and training beneficiaries under Component 2 with livelihood package assistance beneficiaries under Component 3 in the same sampling population is that the former generally engage in larger-scale and more advanced (e.g., greater use of modern agronomic practices) agricultural production than the latter. This decision had the potential of misrepresenting the actual performance within either or both groups if analyzed at the aggregate level (e.g., by overstating performance among livelihood package recipients or understating performance among agricultural grant or training beneficiaries).

- (2) Within the existing budget constraints, it was not possible to send the survey enumeration teams to an equal, or near equal, number of control villages for the rural development and vocational education surveys. Thus the decision was made to sample control households for these two surveys in the same villages as the treatment households. The implication of this decision was that it increased the possibility of contamination bias, or spillover effects, which occurs when changes taking place among project beneficiaries (e.g., adoption of improved agronomic practices) spill over into the control households (e.g., control households copy the agronomic practices adopted by treatment households). The risk of contamination bias is presumably lower when treatment and control locations are more geographically distant and is presumably higher

when treatment and control locations are more geographically proximate. The evaluation design assumes that the control households do not receive the treatment, but if contamination bias does occur, this assumption does not (strictly) hold true thus violating the conditions for creating a valid counterfactual (e.g., what would have happened without the project). In this case, and assuming the treatment is effective, the rate of change among the treatment households is compared to a higher than otherwise rate of change among control households (due to the spillover effect) meaning that the measured project impact is smaller than it might otherwise be.

- (3) The baseline measurement for the rural development and vocational education surveys did not take place until these two interventions had already been underway for several months. Thus there exists the possibility that significant changes had already occurred by the time of the baseline survey meaning that the longitudinal measurement may not have captured the full extent of change leading in turn to an underestimation of project impact. It is worth pointing out here, however, that the decision to delay the rural develop and vocational education baseline surveys was not arbitrary but instead reflected the fact that NEO was adding beneficiaries on a rolling basis and thus it was necessary to delay the baseline surveys until a sufficient number of beneficiaries could be identified. Had we attempted to conduct the baseline survey much sooner than this, we would not have been able to identify a sufficient number of beneficiaries to meet our sample size targets.

A primary practical implication of the above design limitations, and in particular the trade-offs made with respect to the MDEs, is that the findings generated through the DID analysis are not necessarily definitive and must be interpreted with a certain degree of caution, particularly regarding findings where there was insufficient evidence to detect an impact. These findings may in fact represent the absence of impact for a particular outcome variable or may represent a case where an impact exists, but it was not of sufficient size to be picked up by the survey.

With that said, it should be noted that this is a common issue with most impact evaluations in that detecting smaller and smaller effects requires an exponentially increasing sample size. Still, the trade-offs adopted in the NEO evaluation design in response to budget constraints have introduced significant enough limitations, or potential limitations, that these limitations have been noted in detail above. Readers are encouraged to keep them in mind when interpreting the findings and conclusions reported below.

8 FINDINGS

This section presents the main findings related to each of the three primary study populations. In what follows, we begin by presenting the findings from the DID regressions for each set of related outcome variables followed in some cases by a discussion of the related qualitative findings.

8.1 Led Findings

8.1.1 Impact of LED Activities on Participants' Perceptions of Local Government

Table 7 shows how participation in LED activities has affected participants' perceptions of their local government across multiple perception measures. In Table 7 and subsequent tables, values in columns headed by a 'B' indicate baseline values for those variables, and values in columns headed by an 'E' indicate endline values for those variables. For continuous and ordinal variables, the values in these columns are the arithmetic means of the responses, while for dichotomous variables, the values in these columns are the percentage of affirmative responses. For those DID coefficients that are statistically significant, the level of statistical significance is reported using a superscript next to the coefficient value. As seen in Table 7, participation in NEO's LED activities has had a significant impact on participants' perceptions in eight of the 17 outcome variables and in all but one of these cases the impact was positive. Relative to non-participants, LED participants expressed greater agreement that their local government works well, spends its money wisely, is good at solving problems, is honest and trustworthy, places the needs of the local community over their its personal interests and the interests of its political party and has significant authority. The size of the impact varies and ranges from a low of .47 to a high of .87 with an average of .60, meaning that the perceptions among treatment respondents increased relative to control respondents by an average of .60 points along a 5-point scale.

Table 7. Impact of LED Activities on Perceptions of Local Government

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Impact of local government on daily life	1.99	2.10	2.07	2.23	OR	.12
Interest in local government	3.02	2.69	3.14	2.61	OR	-.42 ^{.03}
Influence of women on decisions taken by local authorities?	2.52	2.43	2.52	2.56	OR	.03
Is making my village a better place to live	2.91	2.99	3.14	3.29	OR	.28
Is efficient and well run	2.95	3.06	3.16	3.36	OR	.25
Works well	3.77	3.42	3.76	3.63	OR	.47 ^{.02}
Spends its money wisely	2.92	3.02	3.10	3.39	OR	.49 ^{.03}
Is good at solving problems	2.90	2.97	3.07	3.38	OR	.52 ^{.01}
Is honest and trustworthy	3.30	3.40	3.26	3.63	OR	.56 ^{.01}
Provides opportunities for residents to participate in decision making	2.94	3.17	3.15	3.42	OR	.28
Communicates to residents what it is doing	3.00	3.14	3.22	3.40	OR	.07
Listens to the concerns of residents	3.00	3.24	3.22	3.47	OR	.04
Acts on the concerns of local residents	2.90	3.02	3.13	3.35	OR	.23
Treats all types of people fairly	2.97	3.08	3.12	3.32	OR	.24
Places the needs of the local community over their personal interests	2.91	2.96	3.03	3.28	OR	.62 ^{.01}
Places the needs of the local community over the interests of their political party	2.86	2.91	2.92	3.27	OR	.61 ^{.01}
Has significant authority	3.84	3.51	3.79	3.84	OR	.87 ^{.00}

Table 8 shows how participation in NEO’s LED activities has affected participants’ perceptions of their local government’s role in providing public services. As seen there, in only one of the eight outcome variables was the DID coefficient statistically significant, indicating that, on balance, there is not sufficient evidence to infer that NEO’s LED activities had a significant impact on how participants viewed the role of their local governments in providing public services, relative to non-participants.

The sole exception to this finding has to do with the provision of clean drinking water. In this case, participants increasingly acknowledged the local government’s role in providing clean water relative to non-participants, increasing their perceptions by .65 points relative to the control respondents along a 5-point scale. Given that water provision was the focus of a number of village infrastructure projects, this finding is not surprising.

Table 8. Impact of LED Activities on Perceptions of Local Government Service Provision

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
How much do you feel the local government is currently involved . . . ?						
Providing access to clean drinking water	2.26	2.30	2.16	2.45	OR	.65 ^{.01}
Collecting and disposing of solid waste	2.52	2.07	1.59	2.15	OR	-.03
Maintaining local roads	1.89	2.26	2.03	2.38	OR	-.02
Providing preschool	1.94	2.42	1.87	2.35	OR	.12
Creating and maintaining green areas	1.53	1.87	1.63	1.97	OR	-.08
Illumination of streets/roads	1.74	2.04	1.56	1.93	OR	.22
Offering cultural activities	1.38	2.00	1.49	2.09	OR	-.02
Maintaining cemeteries	1.55	2.14	1.63	2.23	OR	.06

A final measure of the impact of NEO's LED activities that is relevant here is how they have impacted participants' knowledge about their local government. The results in Table 9 are similar to Table 9 in that only one of the DID coefficients is statistically significant, indicating that there is insufficient evidence to infer that, on balance, participation in NEO's LED activities had a significant impact on participants' knowledge about their local government. The only statistically significant result in this case indicates that LED participants were increasingly confident about knowing how to contact a local government official, with an average increase of .51 points on the relevant 5-point scale, relative to non-participants.

Table 9. Impact of LED Activities on Participants' Knowledge about Local Government

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Do you know . . . ?						
How you can get involved in local decision making and solving village problems	2.54	2.44	2.69	2.48	OR	-.20
How to contact a local government official	3.14	2.62	2.95	2.65	OR	.51 ^{.01}
What services the local government is providing	2.68	2.43	2.66	2.52	OR	.28
What quality of service you should expect from the local government	2.54	2.35	2.53	2.43	OR	.19
Where to get information on what the local government is doing	2.59	2.35	2.58	2.49	OR	.18
Whether the local government is delivering on its promises	2.75	2.41	2.66	2.50	OR	.27

8.1.2 Impact of LED Activities on Participants' Satisfaction with Local Government

Table 10 shows how participation in LED activities has affected participants' satisfaction with their local government's services across multiple types of government services. The results present consistent evidence that participation in NEO LED activities has had a significant and positive impact on participants' satisfaction with local government services as seen by a positive and significant DID coefficient in five of the nine government services. Relative to non-participants, LED participants have increased their satisfaction with their local government's provision of clean drinking water, road maintenance, street illumination, provision of cultural activities and cemetery maintenance by an average of .55 points along a 5-point scale, with a high of .88 points and a low of .31 points.

Table 10. Impact of LED Activities on Satisfaction with Local Government Services

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
To what extent are you satisfied with . . . ?						
Providing residents access to clean drinking water	3.43	3.08	3.34	3.28	OR	.60 ^{.00}
Providing residents access to irrigated water for farming	2.57	2.41	2.50	2.26	OR	-.26
Collecting and disposing of solid waste	2.16	2.71	2.17	2.72	OR	-.05
Maintaining local roads	2.25	2.65	2.13	2.72	OR	.31 ^{.10}
Providing preschool	2.59	3.08	2.33	2.74	OR	-.05
Creating and maintaining green areas	2.12	2.28	2.00	2.28	OR	.28 [.]
Illumination of streets/roads	2.37	2.91	1.86	2.37	OR	.80 ^{.00}
Offering cultural activities	2.08	2.29	1.82	2.40	OR	.88 ^{.00}
Maintaining cemeteries	2.33	2.77	2.32	2.92	OR	.42 ^{.03}

Table 11 shows how participation in LED activities has affected participants' satisfaction with their local government officials. In this case, only one of the five DID coefficients is statistically significant. It is notable, however, however, that the one significant DID coefficient relates to the respondents' overall satisfaction with local government, in which LED participants' perceptions improved relative to non-participants by .38 points along the 5-point scale.

Table 11. Impact of LED Activities on Satisfaction with Local Government Officials

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
How satisfied are you with . . . ?						
Local Sacrebulo council member	3.11	3.02	3.15	3.16	OR	.29
Sacrebulo Chairman	3.12	2.90	3.23	3.06	OR	.20

Trustee (Rtsmunebuli)	3.18	3.10	3.28	3.23	OR	.30
Gamebeli	3.08	2.95	3.21	3.06	OR	.02
Local government in general	3.05	2.93	3.10	3.09	OR	.38 ^{.06}

8.1.3 Impact of LED Activities on Participants' Civic Engagement

Table 12 shows how participation in LED activities has affected participants' interest and participation in their village affairs. Surprisingly, participation in the LED activities is actually associated with a reduction in participants' interest in village affairs, falling by .49 points on the 5-point scale relative to non-participants. The DID coefficient for involvement in village affairs is not significant, indicating insufficient evidence to infer that an impact occurred.

Table 12. Impact of LED Activities on Interest and Involvement in Village Affairs

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Interest in village affairs	3.36	2.32	3.59	2.92	OR	-.49 ^{.02}
Involvement in village affairs	2.86	1.83	2.66	1.90	OR	-.23

Table 13 shows the impact of LED participation on different dimensions of participants' level of civic engagement. The findings in Table 14 indicate that participation in NEO's LED activities has had a number of significant and positive impacts on participants' level of civic engagement, including the frequency with which participants attended public meetings with local officials and village members, joined with others to raise an issue or address a problem, and performed volunteer work. The impact across these four outcome variables ranged from .48 to .62, averaging a .56 increase along the 5-point scale relative to non-participants.

Table 13. Impact of LED Activities on Participants' Civic Engagement

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
How often in last 12 months have you or someone else in your household . . . ?						
Attended a public meeting with a local government official	2.01	1.86	1.98	2.03	OR	.53 ^{.01}
Attended a public meeting of village members	2.13	1.88	2.06	2.00	OR	.48 ^{.02}
Got together with others to raise an issue or address a problem	2.02	1.66	1.90	1.75	OR	.60 ^{.01}
Performed volunteer work	1.57	1.43	1.47	1.51	OR	.62 ^{.01}
Attended a demonstration or protest	1.08	1.14	1.05	1.14	OR	.25
Contacted the media to raise awareness about a problem	1.07	1.06	1.05	1.03	OR	-.41
Wrote a letter to a local government official	1.11	1.05	1.05	1.02	OR	.06

Contacted a local government official in person	1.23	1.17	1.31	1.13	Logit	-.25
---	------	------	------	------	-------	------

For those respondents in the treatment and control groups who did contact their local government officials, participation in the NEO LED activities has led to increased levels of satisfaction with the local Trustee (Rtsmunebuli) by 1.58 points along the 5-point scale relative to non-participants (Table 14), although there is insufficient evidence to infer that it has also led to increased satisfaction with other local government officials or with the likelihood of contacting local government officials in the future.

Table 14. Impact of LED Activities on Civic Engagement

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
What is your level of satisfaction with the contacts . . . ?						
Local Sakrebulo Council member	3.76	3.75	3.86	4.00	OR	.78
Trustee (Rtsmunebuli)	3.88	4.09	3.63	3.55	OR	1.58 ^{.06}
Gamgebeli	3.37	3.02	3.32	3.11	OR	.50
Sakrebulo Council Chairman	4.50	3.08	2.82	3.20	OR	.57
Likelihood of contacting local government representatives in the future	2.32	2.01	2.44	2.22	OR	.06

A final measure of civic engagement is the degree to which LED participants' perceptions related to solving village problems changed over time relative to non-participants. Surprisingly, in Table 15 we see a statistically significant and negative impact of project participation in three of the five outcome variables assessed. In these cases, LED participants acquired less positive attitudes than non-participants related to opportunities for solving village problems, the benefits of working with others to solve village problems, and their intention to work with others to solve village problems in the future with an average negative impact of .46 points along the 5-point scale.

The good news in Table 15 is that the project participation has increased participants' perceptions that the community itself is responsible for solving its problems by .73 points on the 5-point scale relative to non-participants.

Table 15. Impact of LED activities on Participants' Perceptions Related to Solving Village Problems

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Level of agreement with . . . ?						
I am aware of opportunities to participate in solving village problems	2.93	2.80	3.19	2.87	OR	-.14
I am satisfied with opportunities to participate in solving village problems	2.79	2.67	3.06	2.71	OR	-.32 ^{.10}

I can make a difference in my community by working with other people to solve village problems	2.84	2.65	3.16	2.66	OR	-.53 ^{.01}
In the future, I will become more involved in working with other people to solve village problems	2.83	2.64	3.16	2.64	OR	-.52 ^{.01}
Community members are responsible for solving community problems	3.60	3.38	3.39	3.52	OR	.73 ^{.00}

8.1.4 Public Awareness and Perceptions of NEO LED Activities and Infrastructure Projects

In this section, we examine the public’s awareness and perception of the NEO LED activities and infrastructure projects in NEO LED communities. Table 16 presents a summary of treatment and control respondents’ responses to survey questions asking about their awareness of NEO’s LED process and infrastructure projects. By the endline, only 6% of residents in treatment communities knew that the community had an EDP, 2.9% were aware of public discussions held in creating the EDP, 2.3% participated in these public discussions and 2.9% were either very aware or somewhat aware of what was in the EDP. Even more surprisingly, these values were uniformly lower than the corresponding values among control group respondents.

Table 16. Awareness of the EDP Process in Treatment and Control Communities

Survey Question	Treatment		Control	
	Baseline	Endline	Baseline	Endline
Does your community have an EDP?	5.0%	6.0%	6.6%	10.5%
Were public discussions held in creating the EDP?	2.6%	2.9%	3.7%	6.0%
Did a member of your household participate in these discussions?	2.6%	2.3%	3.7%	4.7%
How well do you know what’s in the EDP?	2.3%	2.9%	3.7%	6.0%

The findings are similar when we look at community residents’ awareness of NEO infrastructure projects being implemented in their communities in Table 17. By the endline, fewer than 60% of treatment community residents were aware of an infrastructure project being implemented in their community over the last 12 months, an increase of 20.1%, compared to 70.6% of control community residents, an increase of 31.2%. Although this represented a significant increase over the baseline, it is a smaller increase than occurred in the control communities.

Also interesting is that Table 17 shows a large reduction in both the percentage of treatment respondents who said that they thought public discussions should be held about infrastructure projects and that a member of their household would be likely to participate in such discussions in the future equal to 20.9 percentage points in the first case and 50.7 percentage points in the second case. The reduction in both cases was smaller than in the control communities at, respectively, 30.7 percentage points and 31.1 percentage points. These are the opposite trends than we would have expected to observe in treatment

communities given the existence of the LED process and infrastructure projects in those communities, and NEO's considerable efforts to publicize both.

Table 17. Awareness and Perceptions of Infrastructure Projects in Treatment and Control Communities

Survey Question	Treatment		Control	
	Baseline	Endline	Baseline	Endline
Was an infrastructure project implemented in your community in the last 12 months?	38.6	58.7	39.4	70.6
Do you think public discussions related to infrastructure projects should be held?	73.6	52.7	79.8	49.1
If such discussion were held, how likely is it that your household participates?	75.9	25.2	61.9	30.8

Finally, Table 18 shows how the implementation of an infrastructure project has affected perceptions about local government and civic engagement among residents in treatment communities relative to residents in control communities. What is immediately notable in Table 18 is that the perceptions as measured by, respectively, 5-point and 3-point scales have, with one exception in the control group, fallen from the baseline to the endline. The DID coefficients in Table 18 reveal, however, the change was not greater in one direction or the other in the treatment group relative to the control group in each case. Thus, there is insufficient evidence to infer that the relative change was larger in one group or the other.

Table 18. Impact of NEO Infrastructure Projects on Perceptions of Local Government and Civic Engagement

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
How has this infrastructure development project or community-wide economic development activity affected your views of the following?						
Local government	2.58	1.95	2.24	1.66	OR	-.28
Contacting a local government official to solve a personal or village problem	2.67	1.95	2.36	1.60	OR	-.79
Citizen participation with local government to solve a village problem	2.76	2.00	2.39	1.52	OR	-.90
Participation with other citizens to solve a village problem	2.81	1.98	2.39	1.65	OR	-.34
How has this infrastructure development project or community-wide economic development activity affected the likelihood that you . . . ?						
Contact a local government official to solve a personal or village problem	2.73	2.21	2.74	2.36	OR	.46
Work with other citizens to solve a village problem	2.95	2.23	2.70	2.40	OR	1.81
Work on your own to solve a village problem	2.55	1.98	2.00	2.16	OR	1.45

The low levels of community awareness related to the LED plans and infrastructure projects reported above did not occur, however, for lack of effort. Under its LED methodology, NEO made significant efforts to publicize its work and involve diverse community members at every stage of the process. After completing every infrastructure rehabilitation project, moreover, NEO placed a large sign (110 cm. x 65 cm.) at the rehabilitated infrastructure site advertising both Georgian and English languages that the rehabilitated infrastructure was implemented and financed by NEO. Presumably, all people who travel past the sign, including treatment and control group members, would thus be aware that USAID/NEO was responsible for the rehabilitated infrastructure. Nonetheless, survey results indicate, for whatever reason, that there is insufficient evidence to infer that these efforts had a significant impact on public awareness.

At the same time, the qualitative respondents generally expressed strong satisfaction with the quality of the infrastructure projects implemented as part of NEO's LED interventions. This finding may be due to a number of factors, including budgets for projects that were higher than anticipated due to the unexpectedly large government cost-share (see below). As well, NEO utilized professional contractors and did not require cost-share in the form of community labor, which may have resulted in better quality construction. It is, nonetheless, noteworthy that most of the contractors in turn hired the local population as its construction labor force.

A relevant question that arises here is how to square the results in Tables 16-18 with the other results reported above showing a positive impact of NEO's LED activities on residents' attitudes and behaviors related to their local government and civic engagement. In answering this, it is worth pointing out that it is not necessarily the case that any impact of the LED activities on residents' attitudes and behaviors hinges on residents' awareness of NEO's LED activities and infrastructure projects. If, for example, the NEO LED activities helped change the nature of how community residents engaged with local governments and with each other, and/or how the local governments engaged with community residents, then these activities could have a general effect on residents' attitudes and behaviors regardless of their awareness of the NEO LED activities.

8.1.5 Qualitative Findings Related to NEO's LED Activities

The qualitative findings related to NEO's LED activities portray a more consistently positive picture of the activities and their impacts than the quantitative findings, indicating that, even where there is insufficient evidence of widespread quantitative impact, there exists qualitative evidence that impact did indeed exist in certain cases and was, moreover, important in these cases. At the same time, however, qualitative respondents also noted a number of issues, or potential issues, with the LED and infrastructure rehabilitation process. What follows below is a summary of the principle findings (not already mentioned above) coming out of the qualitative assessment of NEO's LED activities.

Community mobilization process was thorough and well-received

With regard to the community mobilization process that forms the heart of NEO's LED approach, the consensus among KII and FGD participants was that the process was well implemented. In all communities

visited, the initial meetings focused on presenting general information on project activities. Community representativeness attending the meetings varied according to the size of the community, distance between the villages, and road accessibility. The Governor’s representative in the community (Rtsmunebuli) disseminated information on the planned meetings by displaying announcements on information boards at local government buildings. The local government typically provided the meeting space, and in most of the cases the Rtsmunebulis were the most active participants in the process. Following the initial meeting, participants were asked to nominate and select working group members corresponding to the four main areas of NEO’s LED intervention: infrastructure, agriculture, small business and social. Working group members were selected according to their work experience or education. Despite the existence of selection criteria for working group and focus group members, researchers observed no cases in which someone who wanted to participate in a working group or focus group was rejected.

The duration of work among the working groups varied from three months to up to one year. Focus groups, however, were not always used, although most of the larger communities did have focus groups. In cases where focus groups were created, they primarily supplied information to the working groups. Attendance at all meetings held during this process was taken, but no minutes were recorded. KII and FGD respondents indicated that meetings were typically well attended.

Improved capacity for leadership and decision-making

Rtsmunebulis interviewed by researchers observed that the LED process helped improve the capacity of local populations to engage in community-based decision-making. As a result of the LED activities, local populations are now more familiar with decision-making procedures and have obtained skills in resource mobilization and planning. Community members, moreover, appear to be better able to identify common problems, prioritize needs and apply solutions. Further, the Rtsmunebulis noted that as a result of the LED intervention, the process of identifying and selecting village priorities for the government Village Support Program (VSP) has worked more smoothly. Similarly, in five of the 11 LED FGDs, participants also noted that the LED activities had increased local capacity for community decision-making.

Illustrative Quotes
<ul style="list-style-type: none">• “Of course, we have already figured out all the main priorities.” –Kazbegi Working Group member• “The problem is clear and we are used to the process.” –Gori Working Group member

LED plans were vague and tended to lack community-specific applicability

The NEO subcontractor, Young Economists Association (YEA), supported the working groups to finalize the LED plans. According to KII and FGD participants, and the evaluators’ review of the LED plans, most of the LED plans are vague and contain similar priorities across communities. Within the plans, most of the priorities, other than those related to infrastructure, are oriented around countrywide sectoral priorities (e.g. access to mechanization, improvement of animal breeds).

Weak LED plan integration into district development plans

For the most part, the contents of the community LED plans were not included in the district development plans, where they existed, and no actions or updates to LED plans were observed after NEO's exit from the communities. LED plans have great potential to be integrated into and inform the Ministry of Rural Development and Infrastructure (MRDI) VSP annual identification of priorities, which has procedures similar to the LED process to identify community-based projects. Despite procedural similarities, however, integration of the community LED plans was not evident in the communities covered by the qualitative research. In KIIs and FGDs with LED process participants, interviewees observed that the LED planning process was frequently thought of synonymously with infrastructure project prioritization. This insight gives some indication that specific project outputs (e.g., infrastructure projects) were driving the LED planning process.

Illustrative Quotes

- “They [municipalities] don’t have their own plan. While working at the USAID project, I’ve worked on such plans for the municipalities. We made them, but they remained untouched. The municipalities are unable to use them as working documents.” –LED Advisor
- “Normally [the municipality] should have been involved, but in the places where I have worked, municipalities didn’t have their plans.” –Regional Development Advisor

In their final stages, LED plans were presented to the district government for further inclusion into district planning. Despite considerably high government cost-share for NEO-supported infrastructure projects, we found no evidence that the LED plans had been included in district development plans. The turnover of local government that occurred in 2013 almost certainly contributed to this outcome.

Illustrative Quotes

- “Since we started the project, three governments have changed.” -LED Advisor
- “In Gori three governors have been changed, and each time everything starts over.” -LED Advisor

High level of government cost-share impacted priorities

In many cases, the financial cost-share from the government was higher than the required minimum. NEO's requirement for minimum cost-share from the local government on infrastructure projects was 15%, but according to interviewees, the government cost-share in some cases reached as high as 50%. Thus it was possible to do bigger projects than initially intended in some cases. Most of the contributions came from municipal budgets, which in some cases also included VSP funds for the government portion. There were yet other cases in which the cost-share was obtained from other donors.

NEO's requirements for mandatory government cost-share resulted, in some cases, in government priorities, rather than LED plan priorities, being funded. Respondents indicated that, in practical terms, this meant that the LED prioritization process was impacted by ensuring that priorities with high probability of government funding were reflected prominently in the final LED plans.

Illustrative Quotes
<ul style="list-style-type: none"> • “We were asking for 15% cost; 15% of 30,000 GEL is a small amount, but later we received GEL 10,000, even GEL 15,000, as cost share.” -LED Advisor • “We were trying to adjust our projects to the priorities of the municipality, because we were unable to start without them.” -LED Advisor • “We had to adjust to the choice of the municipality, because its co-participation was required by the contract.” -Community Mobilizer • “And about the cost-share: you won’t make a project that people want if municipality doesn’t want it. It demotivates.” -Community Mobilizer

Limited community ownership of infrastructure project

NEO-supported infrastructure project procedures include no requirement for a community-level cost share. There are some indications from the qualitative research that this factor resulted in a limited sense of ownership by local community residents. In addition to this, most of the KII and FGD respondents considered maintenance of the infrastructure projects to be the responsibility of the district government.

Illustrative Quotes
<ul style="list-style-type: none"> • “Maybe they still take care of it now, but anyway don’t consider it as their own.” -LED Advisor • “According to the letter, we are prepared. NEO was responsible for the design and part of the constructing work and the municipality took care of other part plus maintenance.” -LED Advisor

8.1.6 Gender Impacts of LED Activities

To test the gender impacts of NEO LED activities, our analytical focus shifts to the changes observed over time among female LED participants relative to the changes observed over time among male LED participants. We are interested specifically in determining whether the relative changes observed within the treatment group itself are smaller or larger for women relative to men, or whether the changes observed within the treatment group are gender neutral. To test this, we ran a separate set of gender regressions on the treatment group similar to the DID regressions that took the following form:

$$O = a + bG + cT + d(G * T) + \epsilon$$

Where:

O = Outcome of interest.

a = Intercept.

G = Indicator of respondent gender that takes on the value of 1 if the respondent is a female and a value of 0 if the respondent is male.

T = Indicator of time that takes on the value of 1 if the observation is made in a treatment year (endline) and a value of 0 if the observation is made in a no-treatment year (baseline).

$G*T$ = Interaction term created by multiplying P times T . This term is equal to 1 if the respondent is a female and the observation is made in a treatment year, and 0 otherwise.

ϵ = Error term.

Note that, as the observations in this case are limited to the treatment group, we are no longer concerned with selection bias and thus we have removed the set of covariates from the regression equation. Nonetheless, the interpretation of the regression coefficients is similar to the DID regressions in that the primary value of interest is again the DID coefficient, which measures the interaction between time and gender among treatment group members. In this case, a significant and positive coefficient means that the change from the baseline to endline among female participants was significantly larger than among male participants. A significant and negative coefficient means the opposite, while a non-significant coefficient means there is insufficient evidence to infer a statistically significant difference between male and female LED participants.

Those gender regressions that produced statistically significant DID coefficients are presented in Table 19. As seen there, 12 coefficients are statistically significant, including six positive coefficients, indicating that the relative effect of LED participation was larger on women than men, and six negative coefficients, indicating that the relative effect of LED participation was smaller on women than men.

Positive coefficients are concentrated in survey questions asking the respondent's awareness of the local government's role in the provision of selected public services, indicating that NEO LED activities significantly increased female participants' knowledge about the role of local government in providing public services relative to male participants. In contrast, the effect on female participants was smaller than on male participants in terms of increasing their knowledge about how to get involved in local decisions, their satisfaction with local government provision of cultural activities and cemetery maintenance, and their civic engagement, as measured by attendance of demonstrations, a belief that working with others can solve village problems and an intention to work with others in the future to solve village problems.

Table 19. Gender Impact of LED Activities

Dependent Variable	Female		Male		Regression Method	DID Coefficient
	B	E	B	E		
Perceptions of local government						
Local government involvement in providing clean water	3.30	3.08	3.51	3.34	OR	.38 ^{.06}
Local government involvement in waste disposal	2.18	2.73	2.14	2.69	OR	.70 ^{.00}
Local government involvement in maintaining roads	2.22	2.67	2.14	2.70	OR	.43 ^{.04}
Local government involvement in maintaining green areas	2.09	2.25	2.01	2.32	OR	1.03 ^{.00}

Local government involvement in providing cultural activities	2.01	2.27	1.86	2.46	OR	.93 ^{.00}
Local government involvement in maintaining cemeteries	2.29	2.75	2.99	2.99	OR	.44 ^{.04}
Knowledge of how to get involved in local decisions	2.48	2.41	2.81	2.54	OR	-.46 ^{.02}
Satisfaction with local government service provision						
Local cultural activities	1.48	1.61	1.35	1.57	OR	-1.64 ^{.03}
Cemetery maintenance	1.94	2.09	2.20	2.33	OR	-.45 ^{.10}
Civic engagement						
Attended demonstration	1.03	1.14	1.11	1.14	OR	-1.38 ^{.01}
Can make a difference working with others	2.81	2.57	3.27	2.80	OR	-.46 ^{.02}
Will be more involved working with others in future	2.82	2.54	3.25	2.79	OR	-.32 ^{.10}

8.2 Rural Development Findings

This section presents the findings from the rural development survey. We note here that the baseline rural development survey was conducted during July-August 2013, while the endline evaluation round was conducted two months earlier in the year during May-July 2015. The timing of the endline evaluation was driven by the imperative to complete the evaluation within the timeframe specified in the evaluation SOW. Despite the different timeframe of the endline evaluation, the relevant frame of reference in both baseline and endline surveys was the most recently completed production season.

Notwithstanding, the (at times) long lag time between the endline data collection and the end of the more recent production season is likely to have introduced an unknown amount of recall error by survey respondents, which may have affected the accuracy of the relevant measurements. The incidence of recall error, however, is mitigated by two, interrelated factors. First, the treatment and comparison respondents faced the same recall challenges. Second, the DID approach measures the relative change in key outcome variables. As we have no a priori reason to believe that one study group gave answers that were systematically biased upward or downward relative to the other group, the effects of any recall error are likely to wash out to a large degree.

8.2.1 Impact of Rural Development Activities on Household Income and Subjective Perceptions of Household Financial Conditions

To measure the impact of NEO's rural development activities (including in-kind procurements of production equipment) on the income and financial wellbeing of beneficiary households, we ran DID regressions on 10 objective and subjective variables of household financial wellbeing with the results shown in Table 20.

Note that of the objective and subjective measures in Table 20, the most relevant for our analysis (here and elsewhere) is Daily Per Capita Household Expenditures (DPCE). Household expenditures (or household

consumption) are a common method for measuring household income and household poverty status used by governments, donor agencies and academic researchers.¹⁶ To calculate DPCE, we asked survey respondents to estimate household expenditures for several expenditure items measuring weekly food, beverage, and tobacco expenditures; monthly non-durable goods and services expenditures (including savings), and yearly semi-durable and durable goods and services expenditures. We next normalized all expenditures so that they were measured in daily value after which we added all the expenditures and then divided by the total by the number of household members to come up with a final figure for DPCE.

In two of these 10 outcome variables, we find evidence of a significant impact of rural development activities on two measures of subjective wellbeing. In the first case, the impact is negative indicating a .69 point decrease on the 5-point scale among rural development participants relative to non-participants. While this finding may appear counter-intuitive, it makes sense if it were the case that the education process that accompanied NEO assistance made its beneficiaries more cognizant that their financial situation could and should be improved.

In the second case, the impact is also negative indicating a .58 point decrease on the 5-point scale relative to non-participants. This finding is consistent with a positive impact in that, as participants either improve their on-farm or enterprise production or expect to improve it, they would perceive less of a need for government assistance.

Table 20. Impact of NEO Rural Economic Development Activities on Household Income and Subjective Financial Conditions

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
DPCE	5.05	6.57	3.40	5.43	OLS	.27
Subjective assessment of household financial conditions	2.96	2.74	3.06	2.55	OR	-.69 ^{.00}
Change in household savings	2.42	2.41	2.44	2.38	OR	.09
Subjective change in household financial conditions	2.86	2.57	2.86	2.57	OR	-.16
Expected change in household financial conditions	3.32	3.10	3.32	3.10	OR	-.18
Applied for social assistance in last 12 months	42.7	28.0	39.5	21.2	Logit	.11
Granted social assistance in last 12 months	22.9	20.8	22.5	18.8	Logit	.06

¹⁶ See, for example, M. Ravallion. (1992). "Poverty comparisons a guide to concepts and methods." Living Standards Measurement Study Working Paper No. 88, World Bank; B.D. Meyer and J.X. Sullivan. (2002). "Measuring the well-being of the poor using income and consumption." NBER Working Paper.

Perceived importance of social assistance	3.68	3.60	3.55	3.04	OR	-.58 ^{.00}
Household member included in government health insurance in last 12 months	78.8	44.5	79.9	42.3	Logit	.10
Perceived importance of government health insurance	3.64	3.61	3.33	3.09	OR	-.13

8.2.2 Impact of Rural Development Activities on Household Coping Strategies and Food Security

In Table 21 we see that there is, on balance, insufficient evidence to infer that participation in NEO's rural development activities has reduced participants' reliance on coping strategies by limiting consumption of important goods or services as a result of financial difficulties. This finding makes sense given that the incidence of engaging in such coping strategies was quite low in both groups to begin with and either did not increase, or only increased slightly, from the baseline to the endline.

Notwithstanding, there are two cases in Table 21 in which the rural development activities do appear to have had a significant impact by reducing participants' reliance on limiting consumption of both electricity/heating fuel and medicines/medical treatment relative to non-participants by, respectively .45 and .37 points on the relevant 5-point scales.

Table 21. Impact of NEO Rural Economic Development Activities on Household Coping Strategies

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Has your household had to limit the consumption of the following due to financial difficulties?						
Bread, khomi, pasta	4.59	4.65	4.51	4.59	OR	.13
Butter, milk, cheese	4.33	4.27	4.12	4.18	OR	.11
Oil	4.47	4.47	4.33	4.38	OR	.08
Meat, chicken, or fish	3.73	3.45	3.55	3.41	OR	.09
Fruits, vegetables	4.67	4.46	4.63	4.37	OR	-.04
Potatoes	4.73	4.96	4.66	4.44	OR	.24
Fuel for cooking	4.57	4.01	4.49	4.05	OR	.13
Electricity or fuel for heating	4.04	3.82	4.30	3.80	OR	-.45 ^{.02}
Medicines or medical treatment	3.90	3.60	3.94	3.51	OR	-.37 ^{.03}

We next looked at whether participation in the rural development activities had an impact on different measures of food security. As seen in Table 22, very small percentages of respondents in both participant and non-participant groups reported either having insufficient food in the household or household members going to sleep hungry or going without food and the changes from the baseline to the endline were small in all cases. Not surprisingly, therefore, we found insufficient evidence to conclude that participation in NEO's rural development activities had a significant impact on the food security of beneficiary households.

Table 22. Impact of NEO Rural Economic Development Activities on Household Food Security

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
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?	.08	.05	.08	.06	OR	.21
Did you or any household member go to sleep at night hungry because there was not enough food?	.04	.03	.03	.03	OR	.05
Did you or any household member go a whole day and night without eating anything at all because there was not enough food?	.03	.03	.02	.02	OR	.44

8.2.3 Impact of Rural Development Activities on Household Asset Ownership

Table 23 shows the results of the DID regressions testing whether participation in the rural development activities had impacted participants' ownership of selected household assets. In seven of the nine cases, the DID coefficient is insignificant indicating that, on balance, there is insufficient evidence to infer that participation had an impact on household asset ownership.

There are two exceptions to this general finding. The first is that participation in rural development activities has led to increased ownership of color TVs among participants relative to non-participants. The second is that participation has led to decreased ownership of DVDs relative to non-participants. According to the odds ratio generated by SPSS along with the DID coefficient (not reported in Table 23), participants were 3.0 times more likely to own a color TV, while non-participants were 0.31 times more likely to own a DVD player.

Table 23. Impact of NEO Rural Development Activities on Household Asset Ownership

Dependent Variable	Treatment		Control		Treatment	DID Coefficient
	B	E	B	E		
Color TV	89.7	96.7	92.2	93.7	Logit	1.12 ⁰¹
Refrigerator	72.8	83.1	67.4	76.7	Logit	.291
Automatic washing machine	25.8	53.6	22.2	48.4	Logit	.400
Car	27.0	39.0	24.2	45.8	Logit	-.212
DVD player	11.5	20.4	4.1	24.0	Logit	-1.16 ⁰⁰
Personal computer	25.8	43.1	15.3	35.6	Logit	.35
Air conditioning	1.0	3.7	0.4	2.2	Logit	.25
Vacuum cleaner	9.9	19.2	3.7	14.9	Logit	-.51
Satellite dish	56.5	71.3	53.3	64.6	Logit	.31

In addition to the household assets included in Table 23, we also ran a series of logit regressions testing whether participation in NEO rural development activities had a significant impact on livestock ownership or productive asset ownership. These regressions yielded zero statistically significant DID coefficients, indicating insufficient evidence to infer that an impact had occurred in all cases.

8.2.4 Impact of Rural Development Activities on Housing Conditions

Table 24 next presents the results generated when testing whether participation in NEO rural development activities has impacted participants' housing conditions. Once again, on balance, there is insufficient evidence to infer an impact has occurred with the important exception that participants are 1.5 times more likely to own an individual water heating system relative to non-participants at the endline and 3.6 times more likely at the endline to own a central water heating system, although the percentage of participant households with a central water heating system is trivial in both groups.

Table 24. Impact of NEO Rural Development Activities on Housing Conditions

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Central water heating system	1.2	1.9	1.5	0.4	Logit	1.83 ^{.07}
Individual water heating system	18.8	36.3	16.6	31.1	Logit	.43 ^{.08}
Central gas	11.5	25.6	10.2	23.6	Logit	.09
Liquid gas	65.2	62.3	67.2	69.8	Logit	-.19
Electrical heating	1.4	2.5	1.1	0.9	Logit	.71
Gas heating-paid	3.5	5.7	1.5	2.2	Logit	.33
Gas heating-provided	5.6	5.7	3.5	3.3	Logit	.49

Summarizing the findings presented in Tables 20-24, there are relatively few cases where the DID coefficient is statistically significant. There is thus on balance insufficient evidence to infer that participation in NEO rural development activities has had significant and widespread impact on either objective or subjective measures of household financial wellbeing relative to non-participants.

8.2.5 Impact of Rural Development Activities and Vegetables and Grain Production, Sales, Income and Jobs

Next we examine whether participation in NEO's rural development activities has had an impact on participants' agricultural production, sales and income within the vegetables and grains, cane fruits, stone fruits and hazelnuts and honey sectors; on the adoption of new agricultural technologies and practices; on enterprise sales, income and employment; and on access to credit.

Note that in the analysis that follows, we do not break down the analysis by individual crops. Given the wide diversity of crops being produced by NEO beneficiaries, there would be insufficient observations for any single crop (or for most single crops) to permit meaningful statistical analysis. For this reason, we have grouped the crops into four categories corresponding to similar production methods: field production (vegetables and grains), vine production (cane fruits), and tree production (stone fruits and hazelnuts).

Grouping the crops in this way produced a sufficient number of observations in each group to allow for statistical analysis.

Table 25 shows the findings measuring the impact of NEO rural development activities on hectares cultivated, vegetables and grains production, sales, income and jobs created. Consistent with NEO’s internal definition of a ‘job,’ which is tied to the objective of increasing rural income levels and individual jobs/employment opportunities, we count all forms of on-farm employment as a job, whether they are formal, informal, full-time, part-time, temporary or seasonal jobs.

As seen in Table 25, none of the DID coefficients is statistically significant, indicating that there is insufficient evidence to infer a significant impact of project participation on the number of hectares cultivated, kilograms produced or jobs created in the vegetable and grain sector nor on the value of sales or income earned from vegetable and grain production.

To determine whether the inclusion of livelihood package recipients in the rural development dataset might be biasing the results downward, we ran the same set of DID regressions using the agricultural grant and training beneficiaries only. This did not produce any change in the specific or overall findings.

Table 25. Impact of NEO Rural Development Activities on Vegetable and Grain Production and Income

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Hectares cultivated	1.08	1.19	.80	.94	OLS	.10
Kilograms produced	699.67	231.29	1,086.75	392.57	OLS	246.29
GEL value sold	1,301.44	2,253.58	812.85	806.91	OLS	827.25
Net income	629.82	1,602.86	373.52	190.47	OLS	746.63
Jobs created	0.4	1.4	0.0	1.3	OLS	1.6

The one area in which participation in rural development activities does appear to have impacted the on-farm performance of vegetable and grain production is in relation to ‘leakage,’ which is defined here as the percentage of on-farm production that is not brought for sale to the market, whether because it is consumed at home, used to feed animals on the farm, used for seed or lost due to spoilage. As seen in Table 26, the DID coefficients for consumed at home and lost to spoilage are both negative and statistically significant, indicating a positive impact of project participation in those two cases totaling a 14.8% reduction in home consumption and a 4.3% reduction in spoilage relative to non-participants.

When restricting the analysis to agricultural grants and training beneficiaries only, the same findings result, although the size of the effect is larger in each case equaling an 8.7% decrease in home consumption relative to non-participants, and a 36.5% decrease in spoilage relative to non-participants.

Table 26. Impact of NEO Rural Development Activities on Vegetable and Grain Production Leakage

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		

Percent consumed at home	50.92	50.21	57.13	70.13	OLS	-14.75 ^{.00}
Percent spoiled	9.46	3.72	4.17	2.17	OLS	-4.25 ^{.04}
Percent used for seed	4.09	6.55	5.21	5.45	OLS	2.09
Percent used for animals	2.33	3.12	5.06	5.05	OLS	1.48

8.2.6 Impact of Rural Development Activities on Cane Fruit Production, Sales, Income and Jobs

We next ran the same set of DID regressions for cane fruit producers in the sample to determine the impact of NEO's rural development activities on cane fruit production, sales, income, jobs and leakage. As seen in Table 27, participation in NEO rural development activities had a significant and positive impact on the net income participants earned from cane fruit production compared to non-participants in the amount of GEL 2,268 (USD 943). An impact of this size in the context of rural Georgia is large in both absolute and relative terms and thus represents a substantial benefit of project participation to participant cane fruit producers.

In contrast to net income earned, the DID coefficients are statistically insignificant for the remainder of the outcome variables in Table 27 indicating insufficient evidence to infer that NEO's rural development activities have had a significant impact on cane fruit production, sales or jobs created.

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Hectares cultivated	.43	.02	.00	.03	OLS	-.37
Kilograms produced	719.60	732.50	328.33	281.19	OLS	-331.36
GEL value sold	108.36	183.09	1.43	9.50	OLS	73.73
Net income	219.42	2,522.59	-34.17	57.63	OLS	2,268.26 ^{.00}
Jobs created	0.9	2.2	0.1	0.0	OLS	0.2

Participation in NEO rural development activities further led to a 5.4% reduction in cane fruit consumed by the household (Table 28). (Kilograms used for seed or for animals had too few cells in the dataset to analyze.)

Table 28. Impact of NEO Rural Development Activities on Cane Fruit Production Leakage

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Percent consumed at home	.93	.56	.00	5.09	OLS	-5.37 ^{.00}
Percent spoiled	.01	.07	.00	.34	OLS	-.27

Running the same set of DID regressions on the agricultural grant and training benefits only produced a small increase in the income impact to GEL 2,523 (USD 1,049), while also producing a small reduction in the percentage consumed at home to 5.5%.

8.2.7 Impact of Rural Development Activities on Stone Fruit and Hazelnut Production, Sales, Income and Jobs

Table 29 presents the findings after running the same set of DID regressions for stone fruit and hazelnut producers in the sample. As seen there, participation in NEO rural development activities has had a statistically significant and positive impact on three of the outcome variables: number of hectares cultivated, number of trees cultivated, and the net income earned from production, producing an increase of .38 hectares cultivated, an additional 1,103 trees planted and an additional GEL 662 (USD 257) in income earned relative to non-participants. Although the impact effect is not as large as with cane fruit producers, an additional USD 257 in income earned is still substantial in the context of rural Georgia.

Another significant finding in Table 29 is that participation in NEO's rural development activities has produced an increase in on-farm employment of 1.4 workers among participant stone fruit and hazelnut producers relative to non-participant stone fruit and hazelnut producers. In contrast, there was insufficient evidence to infer that NEO's rural development activities have had a positive impact on the number of kilograms of stone fruits and hazelnuts produced or the lari value sold.

Table 29. Impact of NEO Rural Development Activities on Stone Fruit and Hazelnut Production and Income

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Hectares cultivated	.71	1.04	.66	.69	OLS	.38 ^{.03}
Number of trees cultivated	323.02	1,517.09	89.93	44.21	OLS	1,103.17 ^{.07}
Kilograms produced	30.90	45.21	27.48	23.65	OLS	16.04
GEL value sold	602.46	1,671.30	410.56	2,275.68	OLS	-494.13
Net income	457.70	4,329.93	384.79	3,984.21	OLS	662.16 ^{.08}
Jobs created	1.0	2.8	0.4	1.2	OLS	1.4 ^{.01}

Participation in NEO rural development activities further had a significant impact on stone fruit and hazelnut production leakage in terms of home consumption and production used for animals leading in the first case to a 7.6% reduction in home consumption relative to non-participants and in the second case to a 8.7% reduction in production used to feed animals relative to non-participants (Table 30).

Table 30. Impact of NEO Rural Development Activities on Stone Fruit and Hazelnut Production Leakage

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Percent consumed at home	2.13	1.34	4.42	12.0	OLS	-7.57 ^{.00}
Percent spoiled	.15	.02	.18	.69	OLS	-21.45
Percent used for animals	1.11	.23	.61	8.69	OLS	-8.73 ^{.00}

Running the same set of DID regressions on the agricultural grant and training beneficiaries again produced small changes in the findings by increasing the net income earned to GEL 895 (USD 372),

reducing slightly the percent consumed at home to 7.0%, and eliminating the impact on the percentage of production used for animals.

8.2.8 Impact of Rural Development Activities on Bulk Honey Production, Sales, Income and Jobs

This section reports the findings related to the impact of NEO rural production activities on bulk honey production, sales, income and job creation. Note that while the survey also asked questions about the production of other honey-related products—including honeycomb, retail packaged honey, beeswax, packaged bees, queens and nucs—the response rates for these other products were too low to allow for analysis.

As seen in Table 31, the DID coefficient was statistically insignificant for each of the bulk honey outcome variables, thus there is insufficient evidence to infer that NEO’s rural development had an impact on bulk honey production, sales, income and employment.

Table 31. Impact of NEO Rural Development Activities on Bulk Honey Production and Income

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Number of honeybee colonies	15.3	16.8	29.0	17.5	OLS	12.30
Number of hives	18.4	15.2	29.3	18.1	OLS	4.62
Kilograms produced	137.5	219.1	23.2	82.8	OLS	87.13
GEL value sold	1,371.3	1,814.2	220.0	889.3	OLS	-305.58
Net income	1,100.4	1,312.1	220.0	876.7	OLS	-388.95
Jobs created	0.2	0.1	0.0	0.0	OLS	-.02

Looking next at the leakage indicators in Table 32, we see that participation in the rural development activities has produced a 7.6% decrease in home consumption of bulk honey, while there is insufficient evidence to infer that it has impacted the percentage of bulk honey given away as gifts.

Table 32. Impact of NEO Rural Development Activities on Bulk Honey Production Leakage

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Percent consumed at home	26.6	32.1	27.5	45.4	OLS	-7.57 ⁰⁰
Percent gifted	13.6	12.9	53.5	16.1	OLS	-21.45

Running the same set of DID regressions on the agricultural grant and training beneficiaries only produced no meaningful changes to the results reported in Tables 31 and 32.

8.2.9 Impact of Rural Development Activities on Adoption of New Technologies and Practices

Table 34 shows the impact that participation in NEO rural development activities had on the adoption of the 17 new technologies/practices shown in Table 34. The list of new technologies and practices in Table

34 are those technologies and practices being promoted by NEO at the time of the baseline report, which were provided by NEO at the request of the evaluation team. Note that several of the technologies and practices listed in Table 33 are more categories of technologies and practices rather than specific ones, meaning that a number of specific technologies and practices might feasibly be counted under one of the categories. For example, new or improved production practices conceivably include several cultivation practices applicable to a single crop or to multiple crops. This approach was used at the baseline in certain cases because it was not possible at that early stage of the project to predict all of the specific technologies and practices that NEO might promote over the life of the project.

However, to mitigate against any possible miscommunication errors related to this question, the evaluation team sought the advice of NEO’s technical experts to provide more precise definitions of certain technology/practice categories judged to be overly vague, and during the enumerator training, enumerators were instructed to read these more precise definitions along with the general response category.

Table 33. New Technologies and Practices Included in the Rural Development Survey

Mechanical and Physical
New or improved land preparation practices
New or improved production practices
New or improved post-harvest handling practices
New or improved processing practices
New or improved energy technologies
Biological
New or improved livestock breeds
New or improved livestock health practices
New or improved plant varieties
New or improved soil management practices
Chemical
Sustainable fertilizer, pesticide, or insecticide practices
Soil amendments
Other Management and Cultural Practices
Sustainable water management practices
Sustainable land management practices
Sustainable production practices
Improved marketing practices
New or improved information technologies
Increased use of climate information technologies
Increased use of energy efficiency technologies

Table 34 shows the results of the DID regressions related to new technology and practice adoption. Because of the low rate of adoption among all survey respondents for any particular technology/practice,

we have added the up the number of adopters across all 17 technologies/practices for each respondent and used this as the dependent variable for the DID regressions. Thus, a respondent who has adopted two of the new technologies or practices found in Table 33 is counted as adopting two new technologies and practices.

As seen in Table 34, participation in NEO’s rural development activities are actually associated with a reduction in the number of new technologies and practices adopted by rural development participants relative to non-participants. From the baseline to the endline, project participants adopted .49 fewer new technologies and practices than did non-participants, and the difference is statistically significant. When limiting the regression to agricultural grant and training participants, the results are similar, only in this case, participants adopted .69 fewer technologies and practices than non-participants.

Table 34. Impact of NEO Rural Development Activities on the Adoption of New Technologies and Practices

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Number of technologies/practices adopted	.71	.30	.00	.12	OLS	-.49 ^{.00}

One possible explanation for this counterintuitive finding is that, while participants may have initially increased their adoption of the selected technologies and practices in response to the project interventions, this rate of adoption may not have been sustained and by the endline had fallen to rates existing prior to the intervention.

Another possible explanation is the presence of spillover effects in which non-participants ‘copied’ the behavior of participants by also increasing their adoption rates of the selected technologies and practices. This explanation, however, is belied by the low adoption rates among non-participant farmers in that, despite increasing their adoption rates from the baseline to the endline, by the endline they still only had adopted on average .12 of the 17 technologies and practices. Such a low adoption rate is inconsistent with a finding of significant spillover effects.

Yet another possible explanation for the low adoption rates reported by NEO beneficiaries is that the original list of 17 new technologies and practices did not, in the end, capture the full range of new technologies and practices promoted by the project, as NEO introduced additional technologies and practices over time that were not included in the original list of 17. Or, related to this is the possibility that in the process of recording specific answers into general response categories something got lost in the translation, which may have produced a systematic undercounting of technologies or practices adopted, despite enumerators’ efforts to clarify technology/practice definitions.

8.2.10 Rural Development Findings in Context

The rural development findings reported above include a number of statistically significant impacts. The most important of these is the finding that participation in NEO’s rural development activities have led to

a significant and positive impact on the income earned from cane fruit and stone fruit/hazelnut production. Moreover, this increase in income in both cases is absolutely large within the context of rural Georgian agricultural society.

In contrast to this important finding, the DID analysis did not produce sufficient evidence to infer that participation in NEO's rural development activities has had a similar positive impact on production or sales in any of the four sectors studied (vegetables and grains, cane fruits, stone fruits and hazelnuts and bulk honey), nor that it has had a significant impact on the number of new on-farm technologies and practices adopted. Nonetheless, arguably the key variable of interest, or bottom line, in the analysis is NEO's impact on on-farm income, and there is evidence to infer that, in at least two sectors, this impact has been significant.

Finally, the analysis also finds that participation in the rural development activities has a consistent impact on the percentage of crops that are not brought to market due to the various sources of leakage, particularly the percentage of crops consumed at home.

It is useful to note here that the DID analysis presented above paints a different picture of NEO's rural development outcomes than what is found in NEO's internal monitoring system, which also includes a survey of project beneficiaries, and which consistently finds evidence of positive impacts on both on-farm production and income. To illustrate, NEO's internal monitoring system found increases in on-farm production and income equal to, respectively, 316% and 4,234% among strawberry producers, 25% and 587% among lettuce producers, 200% and 174% among tomato producers and 200% and 200% among honey producers. In comparing the results of our analysis and NEO's internal monitoring system, we would point out that our analysis does not look at the absolute level of change in production and income among project participants but rather the level of change in production and income relative to non-participants and whether this relative level of change is statistically significant.

In fact, if we look solely at the absolute level of change among NEO's rural development participants in Table 35, we find that in 22 of the outcome variables reported (not including leakage variables), 18 increased in value from the baseline to the endline. Notable among the results shown in Table 35 is that the number of kilograms produced increased in three of the four sectors and the lari value of goods sold and the net income earned increased by substantial amounts in all four sectors. Our analysis thus confirms that production, sales and income among project participants were indeed increasing, usually by substantial amounts, in all four sectors. However, once this level of change was compared to the level of change occurring simultaneously among non-participant farmers, it was not large enough relative to the change occurring among non-participants to generate a statistically significant finding.

Finally, we would add that if indeed NEO's rural development activities had produced increases in on-farm production and income as large as those reported in its internal monitoring system (and as illustrated above), our rural development sample was more than sufficient to detect effects of such large sizes.

Table 35. Absolute Change in Key Outcome Variables among Rural Development Participants

Dependent Variable	Baseline	Endline	Percentage Change
Vegetables and Grains			
Hectares cultivated	1.08	1.19	10.2%
Kilograms produced	699.67	231.29	-66.9%
GEL value sold	1,301.44	2,253.58	73.2%
Net income	629.82	1,602.86	154.5%
Jobs created	0.4	1.4	250.0%
Cane Fruits			
Hectares cultivated	0.43	0.02	-95.3%
Kilograms produced	719.6	732.5	1.8%
GEL value sold	108.36	183.09	69.0%
Net income	219.42	2,522.59	1,049.7%
Jobs created	0.9	2.2	144.4%
Stone Fruits & Hazelnuts			
Hectares cultivated	0.71	1.04	46.5%
Number of trees cultivated	323.02	1,517.09	369.7%
Kilograms produced	30.9	45.21	46.3%
GEL value sold	602.46	1,671.30	177.4%
Net income	457.7	4,329.93	846.0%
Jobs created	1.0	2.8	180.0%
Bulk Honey			
Number of honeybee colonies	15.3	16.8	9.8%
Number of hives	18.4	15.2	-17.4%
Kilograms produced	137.5	219.1	59.3%
GEL value sold	1,371.3	1,814.2	32.3%
Net income	1,100.4	1,312.1	19.2%
Jobs created	0.2	0.1	-100.0%

To provide additional context to the rural development quantitative findings, we note that the qualitative research uncovered substantial evidence that, at the individual level, NEO's rural development activities were producing a number of important benefits to several of the KII and FGD participants. Thus while these benefits may not always have been shared across the entire population of rural development participants, they were significant to those who experienced them. We summarize these qualitative findings in the following sections.

8.2.11 Qualitative Findings-Agricultural Grant and Training Beneficiaries

Increased production and incomes

Rural development participants responding to the KIIs and FGDs agreed that the rural development activities were instrumental in helping them to increase on-farm and enterprise production and income. The majority of production activities supported by the project and observed by the research team were still in operation at the time of the 2015 fieldwork, suggesting that, at the very least, the rural

development participants interviewed perceived that they were generating good returns. For example, all greenhouse producers interviewed reported income increases, while only one nursery owner from Lentekhi was not fully satisfied due to a limited local market for products. A number of rural development participants who also have full-time salaried jobs noted that the increase in agricultural income resulting from project participation has since exceeded the income earned from their salaried jobs.

Illustrative Quotes
<ul style="list-style-type: none"> • “Now I see new directions. At first it was planned as a small local enterprise, but the results are incredible. We reconsidered this project many times...I didn’t plan this business to be so big.” – Service Provider in Zugdidi • “I have increased production to two hectares.” -Producer in Dusheti • “The project financed 350 sq. meters, and I added 150 meters on my own.” -Producer in Zugdidi • “Last year I had 30,000 seedlings, this year it will reach 40,000.” -Producer in Gori

Introduction of small numbers of successful new commodities

The evaluation team observed the successful introduction of new commodities in Samegrelo, Mtskheta-Mtianeti, Kazbegi and Tsageri. Despite the skepticism of the local population during early stages of production, many of the KII and FGD respondents noted that they have since increased areas under cultivation. A number of the respondents further noted that some of their neighbors have since adopted similar forms of cultivation practices, although it was not possible via the qualitative methods to verify whether this copying was indeed occurring or how widespread it was.

In Kazbegi, Mtskheta-Mtianeti regions, qualitative respondents indicated an increase in cultivated lands for potato after the introduction of new varieties. The same was true for interviewed lettuce cultivators in Kazbegi. In one of the communities of Tsageri, the number of beekeepers increased from 10 to 22 and, according to respondents, is still rising. Introducing strawberry production in Samegrelo was risky, as this region had no tradition of strawberry production. Nonetheless, the introduction of strawberry production there proved to be one of the most successful activities among interviewed producers. The number of berry association members in the region has since increased from 7 to 23 since the onset of the rural production interventions. The association is now, moreover, supplying farmers with seedlings in eastern Georgia, 500 kilometers from Samegrelo.

Illustrative Quotes
<ul style="list-style-type: none"> • “One grows big but was less resistant to the frost, the one that was brought from Zugdidi had an excellent result.” -Producer in Kazbegi • “It was said that local climate would be very good for the lettuce, because it doesn’t stand hot conditions, so we decided to try. Then it was followed by broccoli and strawberries.” -Producer from Kazbegi • “NEO laid out 10 demonstration plots, which have proven that the strawberry culture had potential in Samegrelo even though there was a huge skepticism about it.” -Producer in Samegrelo

- “I’ve observed all strawberry productions in Samtredia, and nobody had such big plantations as we have in Zugdidi.” -Producer in Samegrelo
- “After first successful harvest, activity has strong spillover effect in community. Most of the neighbors are interested in production of lettuce.” -Producer in Kazbegi
- “After introducing lettuce with NEO, we are now experimenting with different vegetables.” - Producer from Kazbegi
- “I’m thinking to grow strawberries. NEO is going to help me get seeds. If not, I’m going to buy them online in Holland or in the USA.” -Producer from Gori
- “There are definitely positive changes. Before we used to produce only potatoes. NEO offered us strawberries and lettuce, and we adopted that practice. We are little by little getting used to innovations.” -Producer in Kazbegi.

Adoption of new technologies and practices

Most of the qualitative respondents said that they had adopted new cultivation practices as a result of their participation with NEO and that they were open to further innovation in the future. According to respondents, moreover, several of their neighbors inquired how to implement these technologies with a handful even switching over to high value crops. (As explained above, however, the low adoption rate of project promoted technologies and practices by control farmers is inconsistent with a finding that widespread copying occurred.)

By way of other example, most greenhouse producers interviewed were using heating in their greenhouses prior to the project thus making production costly. By introducing new technologies for greenhouses that did not require heat and that adhered to a proper calendar for production, they were able to receive three harvests per year without heat. This improvement resulted in decreased greenhouse production costs and a corresponding increase in greenhouse incomes.

Illustrative Quotes

- “Yes, it was facilitated by NEO. I learned using pesticides and chemicals.” -Producer in Gori
- “We learned everything from the beginning to the end. We had trainings step by step. One thing that we didn’t learn is growing hydroponic strawberries.” -Producer in Samegrelo

Success of in-kind procurements

Qualitative respondents consistently stated that the in-kind provision of productive assets (e.g., drip irrigation, plastic mulch, beehives, tools) played a critical role in what success they experienced. For these farmers, the provision of productive assets was an important value-added that has allowed them to increase both area brought under production and the amount produced. A good example of this is drip irrigation. The respondent farmers did the first installation with support from NEO and supplier staff. Since that time, these farmers have developed the capacity to manage drip irrigation systems themselves, including system cleaning, repairs and installation of the new system on other plots, all absent external assistance.

Illustrative Quotes

- “Last year I was first to use plastic mulch with the lettuce, and it’s very good.” -Producer in Kazbegi
- “Training and tools were both important.” -Stylists in Tsalenjikha
- “We wouldn’t advance so much only with machine. At the same time we couldn’t afford buying such machines for 350 GEL.” –Vocational training participants from Gori
- “They taught us beekeeping and gave to each of us two hives with bees.” –Honey producer in Lentekhi

Producer-to-market linkage activities experienced limited success, possibly due to a lack of need for this service

As recounted by qualitative respondents, NEO’s support in linking producers to retailers experienced difficulties. For example, one NEO-facilitated contract farming arrangement between producers and EcoFarm did not work out due to a breach of contract by EcoFarm. Nonetheless, some were still able to sell what they produced by identifying alternative buyers and negotiating with them using legal forms of agreements that they had learned via their participation in the (failed) contract farming arrangement. For example, one vegetable producer in Zugdidi district started distributing his products by himself, along with the products produced by other farmers included in the EcoFarm contract farming arrangement. Other farmers in Kazbegi successfully contacted retailers in Tbilisi markets with whom they continue to engage in commercial transactions.

Illustrative Quotes

- “Now many people think to plant lettuce and strawberries, because we managed to get a good price for them.” -Producer in Kazbegi
- “Once a week I transport lettuce to Abkhazia and a refrigerator truck would be useful for me. The lettuce gets spoiled very fast in summer.” -Producer in Samegrelo

Supporting services bolstered the project’s economic impact

KII and FGD participants noted significant value-added attached to the provision of high-quality inputs from NEO coupled with knowledgeable advice by NEO staff and other experts. The meteorological stations and farmer house initiatives supported by NEO were frequently mentioned as examples that provided particular and tangible benefits. Based on information on possible disease outbreaks provided by the meteorological stations, respondent farmers were able to make informed decisions on the use of agrochemicals both so as to minimize their use and maximize their effectiveness. The strong consensus among qualitative respondents was that the effectiveness of NEO’s rural development activities was substantially improved through the provision of inputs and quality advice.

8.2.12 Qualitative Findings-Livelihood Package Recipients

Low initial but growing impact of beekeeping livelihood packages

Most of beekeeping grantees participating in KIIs or FGDs had received in-kind productive assets in the form of multiple beehives. In Lentekhi beehives were procured from one of NEO’s agriculture production grantees. Beekeepers interviewed during the qualitative research reported that they were not able to

start sales in the first year after receiving their packages. By the second or third year, however, they had initiated and expanded production beyond the assistance they initially received, aided by ongoing technical support from the supplier, and were now just starting earning a positive income from bulk honey production. The delay incurred in launching honey production and generating sales may explain the lack of significant quantitative findings above.

Some evidence of impact of greenhouse livelihood packages

In contrast to beekeeping livelihood packages, the in-kind assets received by greenhouse livelihood package beneficiaries appeared to have more immediate effects on income increases on the qualitative respondents. Livelihood package recipients were able to produce their first crop within only a couple of months after installation. Interviewed grantees found the training accompanying the package to be particularly useful. Some of them have since managed to follow market demand and change their products accordingly. For example, one greenhouse grantee in Bazaleti was rotating vegetable production with flowers.

Livelihood package recipients value training/technical assistance coupled with financial support

Qualitative respondents universally valued the financial support and training provided by NEO as part of their livelihood packages (and vocational education as well). All of the respondents expressed general satisfaction with the training, indicating that they would not have been able to utilize the toolkits effectively without the increase in skills and knowledge that came from the training. Several respondents even placed more value on the training than on the toolkits. Respondents further consistently praised the availability of NEO staff to provide technical assistance on a demand-driven basis, both in-person and remotely.

Illustrative Quotes
<ul style="list-style-type: none"> • “We learned a lot. We can’t claim to have known it before. The training was specialized in growing vegetables in the greenhouse.” -Greenhouse producer • “The NEO staff] is always very attentive and helpful. If they are here, they always comes and check how it’s going.” -Producer in Kazbegi

Livelihood packages address immediate subsistence needs

The timing of income generation depends on the type of livelihood package. Most of the qualitative respondents indicated that they utilized the production from their livelihood packages mostly for home consumption, although in some case they sold the surplus.

Illustrative Quotes
<ul style="list-style-type: none"> • “Production is mainly used for family needs.” -Beekeeping package recipient in Lentekhi • “Limited income from the beekeeping as most of the product received is used for family use.” - Beekeeping package recipients in Lentekhi • “Nobody really gets income in money here. We grow our everyday bread.” -Beekeepers in Oni.

Livelihood grantees are catalyzed

Most livelihood package participants interviewed emphasized the motivation that the NEO project provided and how it stimulated them to action. For example, almost all of the beekeeping package recipients interviewed indicated increased motivation to engage in other income-generating activities as a result of their work with NEO.

Illustrative Quotes
<ul style="list-style-type: none">• “Absolutely, it gave us an additional stimulation. At the same time we have sold some part of our goods.” -Livelihood package recipient in Bazaleti• “It filled our hearts with happiness and hope.” -LP recipients in Gori• “Many of the beneficiaries try to make steps forward; some have lost everything because of the frost. Livelihood has more social meaning.” –Regional Development Advisor

8.2.13 Impact of Rural Development Activities on Enterprise Sales, Income and Employment

The rural development survey asked a series of questions about the enterprises operated by rural development participants that were supported by the project. Unfortunately, the number of control respondents who operated enterprises was too small to allow for DID analysis, so the impact of NEO’s rural development activities on enterprise sales, income, and employment could not be evaluated.

8.2.14 Impact of Rural Development Activities on Access to Credit

Table 36 presents the DID coefficients measuring the relative change in access to credit among rural development participants as measured by whether the respondent applied for and received a commercial loan, the number of loans applied for and the number of loans received. Our analytical interest in Table 36 is whether participation in NEO’s rural development activities has increased participants’ creditworthiness as evidenced by their increased access to loans from commercial lending institutions, such as commercial banks, microfinance institutions, non-bank financial institutions, etc. These include loans provided at market rates and loans from commercial lenders provided at subsidized rates, such as subsidized loans provided by banks under the GOG’s Agricultural Projects Management Agency (APMA). As such, the zero interest loans provided by the project through CHCA are not included in the analysis.

As seen in Table 36, none of the DID coefficients measuring credit access are statistically significant indicating insufficient evidence to infer that NEO’s rural development activities had an impact on participants’ access to commercial credit.

Table 36. Impact of NEO Rural Development Activities on Access to Credit

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Applied for a loan	35.7%	39.2%	27.9%	35.6%	Logit	-.120
Received a loan	33.2%	38.4%	25.7%	35.4%	Logit	-.153
Number of loans applied for	1.3	1.2	1.2	1.1	OLS	.075

Number of loans received	1.2	1.2	1.1	1.1	OLS	.054
--------------------------	-----	-----	-----	-----	-----	------

The qualitative research with rural development participants sheds additional light on the findings reported in Table 36. The key means of credit access provided by the project was the CHCA no interest loan program, which were small loans used mainly by IDPs and vulnerable individuals interested in purchasing supplements to NEO-provided toolkits, or who were not receiving toolkits, but who were willing to invest themselves. Some of the respondents in Samegrelo, however, stated that they have received additional loans from microfinance organizations to expand their businesses, and that their experience borrowing from CHCA had helped them to understand lending and establish a credit history. A number of grantees, moreover, borrowed money to pay the cost-share on NEO-supported activities. These tended to be larger grantees, however, with relatively big investment projects, such as a feed producer in Bazaleti. In these limited cases, the grants they received from NEO made it easier for them to receive loans.

8.2.15 Gender Impacts of NEO Rural Development Activities

We ran a series of gender DID regressions on each of the rural development outcome variables reported above so to test whether the results among the NEO rural development participants differed by gender. The full set of statistically significant DID coefficients, which indicate a statistically significant gender difference, is reported in Table 37. As seen there, the number of significant coefficients relative to the number of different outcome variables tested is small, indicating that the results did not, overall, differ much by the beneficiary's gender.

With that said, there are still some important differences in how men and women benefitted from NEO's rural development activities. Female vegetables and grain producers increased production by 551 kilograms more than did male vegetables and grain producers, and female participants overall adopted .32 new technologies and practices more than did male participants over the same period. In contrast to these results, and female stone fruit and hazelnut producers earned GEL 2,182 (USD 907) less than did male stone fruit and hazelnut producers.

Table 37. Gender Impact of NEO Rural Development Activities

Dependent Variable	Female		Male		Regression Method	DID Coefficient
	B	E	B	E		
Kilograms vegetables and grains produced	554.69	328.45	1,076.37	299.64	OLS	550.58 ^{.05}
Net income from stone fruit and hazelnut production	296.85	2,433.76	492.45	4,811.19	OLS	-2,181.82 ^{.00}
New agricultural technologies and practices adopted	.14	.20	.49	.22	OLS	.32 ^{.00}

8.3 Vocational Education Findings

In this section, we report the findings related to NEO's vocational education activities. These results show the impact of NEO vocational education activities on participant households' financial conditions, asset

ownership and housing conditions, in addition to their impact on participants' wage employment, enterprise self-employment and agricultural self-employment outcomes; and finally on participants' access to credit.

8.3.1 Impact of Vocational Education Activities on Household Income and Subjective Perceptions of Household Financial Conditions

As in the other two surveys, we ran a series of DID regressions to determine whether participation in NEO's vocational education activities have had an impact on a set of objective and subjective measures of household wellbeing. The DID regression coefficients shown in Table 38 are uniformly insignificant meaning that there is insufficient evidence to infer an impact of NEO's vocational education activities on participant households' financial wellbeing.

Table 38. Impact of NEO Vocational Education Activities on Household Income and Subjective Financial Conditions

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
DPCE	3.03	4.78	2.87	4.61	OLS	.008
Subjective assessment of financial conditions	2.64	2.57	2.51	2.44	OR	.089
Subjective change in household financial conditions	2.92	2.63	2.77	2.56	OR	.279
Expected change in household financial conditions	3.28	3.14	3.18	3.04	OR	.106
Change in household savings	2.52	2.52	2.59	2.56	OR	-.025
Applied for social assistance in last 12 months	61.7%	41.8%	18.0%	51.2%	Logit	-.02
Granted social assistance in last 12 months	52.1%	43.7%	34.0%	30.5%	Logit	-.21
Perceived importance of social assistance	3.60	3.40	3.45	3.30	OR	.17
Household member included in government health insurance in last 12 months	82.0%	55.2%	82.0%	48.8%	Logit	.26
Perceived importance of government health insurance	3.66	3.63	3.66	3.57	OR	-.20

8.3.2 Impact of Vocational Education Activities on Household Coping Strategies and Food Security

Tables 39 and 40 show the results of the DID regressions run to determine whether NEO's vocational education activities have had an impact on participant households' reliance on household coping

strategies and on their incidence of food insecurity. The DID coefficients are uniformly insignificant, meaning insufficient evidence to infer an impact in each case.

Table 39. Impact of NEO Vocational Education Activities on Household Coping Strategies

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Has your household had to limit the consumption of the following due to financial difficulties?						
Bread, khomi, pasta	4.28	4.59	4.34	4.72	OR	.26
Butter, milk, cheese	4.00	3.59	3.89	3.89	OR	.07
Oil	4.21	4.43	4.75	4.52	OR	.21
Meat, chicken, or fish	3.30	3.02	3.21	2.96	OR	.13
Fruits, vegetables	4.64	4.31	4.36	4.40	OR	.38
Potatoes	4.42	4.40	4.41	4.29	OR	-.16
Fuel for cooking	4.30	4.00	4.31	4.16	OR	.33
Electricity or fuel for heating	3.63	3.72	3.46	3.70	OR	.31
Medicines or medical treatment	3.39	3.25	2.42	3.41	OR	.22

Table 40. Impact of NEO Rural Economic Development Activities on Household Food Security

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
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?	17.2	12.3	15.2	9.4	OR	-.17
Did you or any household member go to sleep at night hungry because there was not enough food?	11.1	4.6	12.9	5.5	OR	.12
Did you or any household member go a whole day and night without eating anything at all because there was not enough food?	6.1	3.8	6.3	2.3	OR	-.07

As in the LED and rural development surveys, the percentage of respondents who resort to the listed coping strategies or who go without food for whatever reason are absolutely small in both groups, indicating that the vocational education respondents are not, by and large, drawn from vulnerable or food insecure populations.

8.3.3 Impact of Vocational Education Activities on Household Asset Ownership and Housing Conditions

Tables 41 and 42 next show the results of the DID regressions done to determine whether NEO's vocational education activities have had an impact on participants' household asset ownership and housing conditions. The DID coefficients are again uniformly insignificant and thus there is insufficient evidence to infer project impact on household asset ownership or housing conditions.

Table 41. Impact of NEO Vocational Education Activities on Household Asset Ownership

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Color TV	90.4%	91.6%	80.5%	90.6%	Logit	-.91
Car	11.9%	16.5%	16.4%	23.8%	Logit	-.16
DVD player	11.1%	14.2%	10.5%	11.7%	Logit	.10
Personal computer	13.4%	25.7%	18.8%	34.5%	Logit	-.19
Air conditioning	0.8%	3.4%	0.4%	0.4%	Logit	1.49
Vacuum cleaner	3.9%	11.3%	3.8%	6.5%	Logit	-.91
Independent heating system	3.1%	5.4%	6.3%	4.7%	Logit	.98

Table 42. Impact of NEO Vocational Education Activities on Housing Conditions

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Central water heating system	0.4	1.1	0.0	1.2	Logit	1.64
Individual water heating system	10.0	24.5	15.6	32.8	Logit	.62
Central gas	16.9	28.4	19.5	27.0	Logit	.23
Liquid gas	43.7	43.3	44.5	55.1	Logit	-.42
Electrical heating	3.4	4.6	0.4	2.7	Logit	-1.57
Gas heating-paid	1.5	8.8	2.7	6.6	Logit	.78
Gas heating-provided	5.4	5.0	6.6	5.9	Logit	.06

8.3.4 Employment Status after Completing the Vocational Education Course

Table 43 reports the percentage of vocational education participants that found employment at the conclusion of the training course and the type of employment they found. In the endline survey, 41.8% of survey respondents had found employment, which is a significantly larger percentage than in the baseline, although still less than one-half of participants. Table 43 next shows the distribution of these jobs, where we see that nearly 70% in the endline were in either involved in enterprise or agricultural self-employment, with a significant increase in enterprise self-employment over the baseline, while only about 17% of vocational education participants in the endline found wage or salaried employment with a new employer. The chi-square values indicate that the percentage of graduates finding jobs, and the distribution of those jobs, in the endline is significantly different than in the baseline.

The key findings in Table 43 are a 13.2 percentage point reduction in agricultural self-employment from 28.2% to 14.7% coupled with a 21 percentage point increase in enterprise self-employment from 35.9%

to 56.9% indicating a substantial shift among vocational education participants to enterprise self-employment. This finding is consistent with the qualitative findings among vocational education participants in which interviewees consistently expressed stronger interest in starting and/or running their own businesses than in finding wage or salaried employment or in other forms of employment. The vocational training participants interviewed largely started self-employment enterprises, rather than seeking employment in private business or in agricultural self-employment.

Table 43. Employment Status of Vocational Education Participants

Found job after vocational education	B	E	Chi-Square
	22.9%	41.8%	.00
Type of employment			
Old job with previous employer	15.4	11.0	.02
Different job with previous employer	1.3	0.0	
Similar to old job but with different employer	5.1	0.9	
Different job with different employer	14.1	16.5	
Agricultural self-employment	28.2	14.7	
Enterprise self-employment	35.9	56.9	

8.3.5 Impact of Vocational Education Activities on Wage and Salaried Employment

Tables 44 shows the impact of NEO’s vocational education activities on different outcomes related to wage and salaried employment. As seen there, the vocational education activities have had a significant impact on the number of hours worked per month among project participants, increasing them by 94.5 hours per month. In contrast, there is insufficient evidence to infer that the vocational education activities have impacted participants’ monthly salary/wage earnings or their satisfaction with their wage or salaried employment.

Table 44. Impact of NEO Vocational Education Activities on Wage and Salaried Employment

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Hours worked per month	314.77	438.22	256.72	171.13	OLS	94.50 ^{.06}
Earnings per month	212.81	340.67	170.95	179.65	OLS	1.754
Satisfaction with employment	2.95	3.34	3.79	3.70	OR	.636

8.3.6 Impact of Vocational Education Activities on Enterprise Self-Employment

Table 45 next shows how participation in NEO’s vocational education activities has impacted different outcomes related to participants’ enterprise self-employment. We see there that the vocational education activities have had a significant and positive impact on both participants’ monthly sales and monthly income from enterprise self-employment relative to non-participants equaling GEL 202 (USD 84) in the first case and GEL 414 (USD 172) in the second case. The latter result translates into an average increase of USD 2,064 over the course of 12 months, which is a significant increase in household income in the rural Georgian context.

Table 45. Impact of NEO Vocational Education Activities on Enterprise Self-Employment

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Gross monthly revenues	100.86	260.89	400.00	228.57	OLS	292.24 ^{.04}
Monthly income	-39.88	96.58	350.00	22.86	OLS	414.41 ^{.06}
Satisfaction with enterprise self-employment	3.62	3.64	2.00	3.11	OR	-1.01

8.3.7 Impact of Vocational Education Activities on Agricultural Self-Employment

In contrast to the above findings, the findings related to the impact of NEO's vocational education activities on agricultural self-employment shown in Table 46 are less favorable. The encouraging finding is that participation in the vocational education activities is associated with a positive impact on the number of plots cultivated and participants' satisfaction with their agricultural self-employment relative to non-participants, equal to a .19 hectare increase in the first case and a 1.36 increase on the 5-point scale in the second case. The less encouraging finding is that participation in the vocational education activities is associated with a reduction of 353 kilograms of agricultural products sold, a reduction of GEL 383 (USD 159) in the lari value of agricultural products sold, and a reduction of GEL 1,012 (USD 421) in the income earned from agricultural production. Note that in the first two cases, the amount and value sold actually fell from the baseline to the endline among vocational education participants, compared to an increase in the control group, while in the second case, the income earned increased from the baseline to the endline, although by a significantly smaller amount than the increase among non-participants.

Table 46. Impact of NEO Vocational Education Activities on Agricultural Self-Employment

Dependent Variable	Treatment		Control		Regression Method	DID Coefficient
	B	E	B	E		
Number of plots	1.20	1.30	1.38	1.28	OLS	.19 ^{.10}
Land area	.47	.33	.53	.47	OLS	-.09
Amount harvested	426.84	290.93	468.29	640.28	OLS	-289.95
Amount sold	212.91	199.18	117.18	463.58	OLS	-353.17 ^{.01}
Sales	229.54	189.54	224.40	553.32	OLS	-383.15 ^{.01}
Income	165.47	247.00	124.50	1,119.53	OLS	-1,012.50 ^{.01}
Satisfaction with agricultural self-employment	3.39	3.28	2.73	3.27	OR	1.36 ^{.00}

8.3.8 Impact of Vocational Education Activities on Access to Credit

Table 47 next shows the results measuring whether the vocational education activities impacted participants' access to credit. As seen there, the DID coefficients are insignificant in each case, indicating insufficient evidence to infer an impact of vocational education activities on credit access. (No vocational education participant received more than one loan.)

Table 47. Impact of NEO Vocational Education Activities on Access to Credit

Dependent Variable	Treatment	Control		
--------------------	-----------	---------	--	--

	B	E	B	E	Regression Method	DID Coefficient
Applied for a loan	29.5%	34.5%	28.9%	34.8%	Logit	-.05
Received loan	26.6%	32.8%	28.7%	33.7%	Logit	-.06
Number of loans applied for	1.12	1.14	1.01	1.10	OLS	-.06

8.3.9 Satisfaction with Vocational Education Activities

In this section, we look at how vocational education participants rate their satisfaction with different aspects of the vocational education provided by NEO. Table 48 shows how participants rated the quality of the vocational education along a number of different dimensions in the baseline and endline surveys using an ascending 5-point scale. What is perhaps most notable in Table 48 is that the scores are consistently high (with a couple of exceptions) indicating strong satisfaction with the different dimensions of the vocational education activities. In some cases, the scores increased from the baseline to the endline, while in other cases they decreased evincing no clear pattern. In four cases, the difference between the baseline and endline responses are statistically significant,¹⁷ and in three of these, the scores trended upwards, although the absolute difference between the scores from the baseline to the endline is not large in all cases.

Table 48. Satisfaction with Different Dimensions of Vocational Education

Outcome Variable	Baseline	Endline	Chi-Square
My instructors knew the subject matter well	4.4	4.6	.01
My instructors communicated the subject matter well	4.6	4.6	.67
The mix of classroom instruction and practical training was appropriate	4.6	4.5	.52
The subject matter taught was appropriate to my situation	4.5	4.5	.70
I learned a lot I did not know before hand	4.7	4.5	.39
I developed important new knowledge and skills	4.5	4.6	.52
There is good market demand for the knowledge and skills I developed	3.9	3.7	.00
The course linked me to people who can help me in my future employment	3.6	3.1	.00
The instructors and course administrators gave me useful help in finding employment	3.1	2.6	.00

Next, Table 49 shows the overall satisfaction ranking given by vocational education participants in the baseline and endline again using an ascending 5-point scale. As seen there, participants expressed overall

¹⁷ Although we report the mean value for the ordinal scales in Table 45 (for reasons explained in Footnote 6), we applied the chi-square procedure to test the difference between treatment group responses from the baseline to the endline.

satisfaction with the vocational education in both survey rounds with no change from the baseline to the endline.

Table 49. Overall Satisfaction with Vocational Education

Outcome Variable	Baseline	Endline	Chi-Square
Overall, how satisfied are you with the vocational education course?	4.0	4.0	.20

Adding to the above findings, qualitative respondents participating in the vocational education training also generally found the toolkits provided to training participants to be satisfactory, although there were important exceptions. The first round of stylist trainees, for example, indicated that the toolkits were of low quality; chairs and hair dryers were for home use and not professional. NEO has since corrected this issue on second and third cohorts of stylist trainees.

8.3.10 Perceptions of the Impact of Vocational Education Training

Table 50 next compares the baseline and endline survey responses among vocational education participants with respect to their perceptions about the impact of the vocational education, again using an ascending 5-point scale. Overall, the scores in Table 50 are less favorable than in Tables 48 and 49, but mostly trend toward the upper half of the 5-point scale, indicating generally moderate levels of perceived impact. With the sole exception of the perceived impact on income, the perceived impact fell slightly or remained the same from the baseline to the endline. The difference was statistically significant in most of these cases, although not absolutely large.

Table 50. Perceived Impact of Vocational Education

Outcome Variable	Baseline	Endline	Chi-Square
Increased my income	2.8	3.0	.00
Increased my future income potential	3.7	3.4	.02
Increased my financial independence	3.0	3.0	.11
Increased my independence generally	3.5	3.4	.00
Improved my work knowledge and skills	4.0	4.0	.18
Increased my motivation to work	4.0	3.9	.02
Improved my chances of finding quality employment	3.6	3.3	.00
Increased my self-esteem	3.9	3.6	.00
Improved my quality of life generally	3.3	3.2	.00

8.3.11 Gender Impacts of NEO Vocational Education Activities

Table 51 shows the results of the gender impact DID regressions on the vocational education dataset. While the number of statistically significant coefficients is small relative to the total number of outcome variables tested, there are, nonetheless, a number of important differences between male and female participants related to how they benefitted from or perceived the vocational education training.

With one exception, female participants have fared less well than their male counterparts from the baseline to the endline. Relative to male participants, female participants spent GEL 1.76 (USD 0.73) per capita less per day, worked .20 fewer hectares of land, and sold GEL 611.62 (USD 254) less in agricultural products each cropping season. In terms of participants' satisfaction with vocational education, the two significant DID coefficients indicate that, relative to male participants, females increasingly disputed that they learned a lot from the vocational education training or that they developed new knowledge and skills from it. Finally, in terms of participants' perceived impact of the vocational education, female participants perceived a larger income increase than did male participants. At the same time, the perception that the vocational education increased participants' future income potential, increased participants' independence, improved participants' chances of finding quality employment and increased participants' self-esteem fell among female participants relative to male participants.

Table 51. Gender Impact of NEO Vocational Education Activities

Dependent Variable	Female		Male		Regression Method	Coefficient for <i>d</i>
	B	E	B	E		
Household financial well-being						
DPCE	5.76	3.78	3.07	2.84	OLS	-1.76 ^{.00}
Agricultural self-employment						
Land area	.56	.37	.43	.44	OLS	-.20 ^{.00}
GEL amount of crops sold	79.19	377.19	204.06	1,113.73	OLS	-611.62 ^{.01}
Satisfaction with vocational education						
My instructors communicated the subject matter well	4.6	4.7	4.7	4.5	OLS	.03
The mix of classroom instruction and practical training was appropriate	4.6	4.7	4.6	4.4	OLS	.03
I learned a lot I did not know beforehand	4.6	4.6	4.5	4.4	OLS	.05
I developed important new knowledge and skills	4.6	4.9	4.5	4.4	OLS	.09
Perceived impact of vocational education						
Increased my income	3.0	3.1	2.7	2.9	OLS	-.27 ^{.09}
Increased my future income potential	3.8	3.4	3.6	3.4	OLS	.51 ^{.00}
Increased my independence generally	3.8	3.6	3.4	3.2	OLS	.55 ^{.01}
Improved my chances of finding quality employment	3.7	3.4	3.6	3.4	OLS	.42 ^{.01}
Increased my self-esteem	4.0	3.6	3.8	3.6	OLS	.39 ^{.02}

9 CONCLUSIONS

This section presents the conclusions drawn from the endline quantitative and qualitative findings with regards to the seven evaluation questions and 13 evaluation hypotheses.

9.1 Evaluation Question 1

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?*

The community mobilization process that forms the heart of NEO's LED approach resonated strongly with qualitative respondents in LED communities. Overall, the LED process was well done and closely followed NEO's LED methodology. NEO made good faith efforts to disseminate information about the LED process to community members and local government officials, facilitate participation by a reasonably wide cross-section of community members and engage in a participatory process of developing the communities' LED plans. Those community members of local government officials who participated in the LED process generally agree that the process was effective in improving the capacity of community members to engage in community-based decision-making; identify common problems, prioritize needs and apply solutions; and engage in resource mobilization and planning. The baseline evaluation flagged the hazard of educated and professional residents of communities dominating the LED process, but this did not occur, having been effectively mitigated by NEO through its open, participatory process.

At the same time, however, the community LED plans examined tended to be vague and contain similar priorities across communities—such as access to mechanization, improvement of animal breeds—that reflected more general country-wide sectoral priorities as opposed to the specific, localized priorities of the NEO LED communities. In the end, the LED plans created with project assistance had limited utility for communities or other stakeholders, either tending to reflect generic priorities, or reflecting back the municipal government's most probable funding priorities. No qualitative respondents indicated that plans had been utilized or updated after NEO's exit from the communities. About half of the qualitative respondents were apparently not aware of the existence of municipal development plans, and none were able to cite an instance in which the LED plan was incorporated into the municipal plan. Furthermore, a lack of updates to the LED plans after the NEO intervention suggests a lack of interest on the part of the community and government to continue LED planning in the absence of NEO support and/or financial or infrastructure project outputs.

The infrastructure projects implemented in each LED community tended to dominate the focus of LED planning and community-based actions. It was apparent that qualitative respondents were frequently confusing LED plans with infrastructure projects themselves.

NEO was very successful in attracting the (particularly municipal) government's participation and financing of prioritized infrastructure projects, much more so than was evidenced (or indeed expected) at the baseline stages of the project, and well in excess of project targets. In fact, in several of the LED communities studied, the local government cost share exceeded the minimum 15% cost share required by the project reaching as high as 50% in some cases with most of the government funding coming from municipal budgets.

A trade-off of this larger-than-expected government cost share, however, was the substitution of government priorities for community priorities in the LED plans and funding decisions. The baseline research indicated that projects were to be selected primarily on the basis of economic and environmental return; however, by the baseline the project appeared to experience a shift toward priorities of the municipality for the benefit of co-financing. While this shift is encouraging for the integration of community priorities with those of government, it creates concerns regarding the utility of community-based planning and the effect to which the plans and infrastructure projects reflected community priorities. Notwithstanding, the prioritization of the local government's needs in the LED plans does not appear to have provided sufficient motivation for the governments to incorporate the LED plans into their own planning processes.

It is possible, however, that the turnover of local government that occurred in 2013 explains much of this outcome. Three separate elections took place throughout the LED implementation period. These elections stimulated increased government contributions, especially immediately prior to elections. However, they also negatively impacted the extent to which the project and communities were able to engage with government officials to integrate planning into their own processes. We can reasonably infer that these elections benefited the NEO project's government cost-sharing results, but simultaneously placed limitations on its ability to more sustainably integrate planning processes.

NEO did not require a community cost-share for the infrastructure projects. It is likely due in part to this that the overwhelming majority of KII and FGD respondents agreed that project maintenance was the responsibility of government, with limited to no public involvement. While we agree with this assessment in its strict legal interpretation, this is not always the reality in rural Georgia. Where an absence of clear community ownership of the infrastructure does in fact exist, in our view this situation introduces the risk that ongoing maintenance and/or repair of infrastructure projects will break down at some point in the future, thereby threatening the sustainability of these projects, whereas requiring a community cost-share might have resulted in stronger community ownership.

The impact of NEO's LED activities on public awareness and attitudes toward the LED planning process among respondents in treatment communities is lower than expected, and is, in most cases, lower or not much different than public awareness and attitudes among respondents in control communities. The

same is true with regards to the impact of the infrastructure projects, of which a surprisingly large number of treatment respondents are unaware. Nor, with one exception, has the implementation of an infrastructure project in treatment communities improved residents' perceptions of local government and civic engagement. We thus conclude that awareness of NEO's LED process and infrastructure projects within the project communities was not as widespread as might have been expected, particularly in light of NEO's extensive and good faith efforts to publicize its activities within the treatment communities.

As for the sustainability of the LED process, it is too early still to reach any definitive conclusions, although there are some clues, each of which point to potentially low sustainability. These clues include the following:

- None of the communities examined during the evaluation have updated their LED plans once NEO assistance ended.
- The generic-like content of the LED plans that reflect broader government priorities rather than specific local priorities.
- The failure to integrate the community LED plans in the government's MED plans at the district level. This outcome, combined with the one above it, appear likely to produce a demotivating effect for local community members to continue with the process.
- The low levels of community awareness related to NEO's LED process, the existence and content of the LED plan, and the NEO-led infrastructure rehabilitation project found in the LED survey.

9.2 Evaluation Question 2

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?*

The in-kind provision of productive assets under Component 2 and 3 rural development activities had a significant and positive impact on the on-farm income earned by beneficiary cane fruit and stone fruit/hazelnut producers. This improvement in on-farm income, however, has yet to translate directly into increased household income, as measured by DPCE or other objective or subjective measures of household wellbeing. To the extent that these income gains are sustained, we might reasonably expect this to translate into improved household income and household wellbeing over time. Moreover, in those cases where the small-scale farmers did experience improved on-farm production and income, the in-kind provision of productive assets played a key role in their success.

For livelihood package recipients, the receipt of in-kind assets played an important role in catalyzing the recipients' engagement in the relevant income generating activities and was again was a key contributor in those cases where beneficiaries (e.g., greenhouse producers and beekeepers) leveraged the livelihood package assistance to increase their on-farm production and income. In these cases, beneficiaries tended to use the extra income earned to supplement their household consumption, although in some cases they sold the surplus.

9.3 Evaluation Question 3

3. *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?*

Participation in NEO's rural development activities has had a number of positive impacts on participants' on-farm income and production leakage (the share of production not brought to market). Most notably, project participation had a positive and significant impact on the on-farm income earned by participant cane fruit and stone fruit/hazelnut producers relative to non-participants.

In addition to the above, project participation has led to a reduction in production leakage among participants relative to non-participants, presumably meaning that participants are now bringing more products to market. Finally, participant stone fruit producers significantly increased the number of trees and hectareage brought under cultivation relative to non-participants.

At the same time, however, we are unable to conclude that participation in NEO's rural development activities had impacted on-farm production or sales in each of the four sectors studied, or that it has impacted on-farm income among vegetables and grain producers and bulk honey producers, nor that they had impacted the rate of adoption of new on-farm technologies and practices among project participants.

In terms of job creation, participation in NEO's rural development activities did produce a significant impact on the number of on-farm jobs created among participant stone fruit and hazelnut producers of 1.4 workers compared to non-participant stone fruit and hazelnut producers. As for the other sectors studied, however, we found insufficient evidence to conclude that participation in NEO's rural development activities had any impact on the number of on-farm employees among grain and vegetable, cane fruit and bulk honey producers.

Where we were unable to conclude significant impacts had occurred, the possibility exists that spillover effects occurred within the control group via non-participant copying, which had the effect of contaminating the control group and causing a systematic understating of project impacts. Indeed, anecdotal evidence provided by qualitative respondents cited a number of anecdotes in which such copying had occurred. Primary evidence for the existence of widespread copying would be that non-participant farmers were adopting the same, or similar, set of technologies and practices adopted by participant farmers. However, such evidence does not exist, rather by the endline survey, non-participants had only adopted on average .12 of the 17 technologies and practices promoted as part of the rural development intervention. Such a low adoption rate among non-participants is inconsistent with a conclusion of widespread spillover effects.

Another possible explanation is that combining the livelihood package recipients with the agricultural grant and training beneficiaries in the rural development sample had the effect of biasing the findings downward given that the former operate at a much smaller scale and with a much lower technological base than the latter. However, running the same battery of DID regressions on the agricultural grant and training beneficiaries only did not materially change the results or our conclusions.

By way of context for the above conclusions, the qualitative research found numerous individual instances in which participation in the rural development activities had led to increases in on-farm production and income as well as other instances in which certain beneficiaries proactively forged new commercial relationships to market their products, although these positive results were not always widely shared among their counterpart farmers. To the extent that the rural development interventions were successful, critical contributors to that success included the high-quality inputs and technical advice provided through the project aided by the ongoing availability and responsiveness of NEO and implementing partner staff.

We thus conclude that NEO's rural development activities did have a positive and large impact on on-farm income in two of the four sectors studies. While this impact was limited to these two sectors, within each of the four sectors there are sufficient numbers of success stories in the qualitative data to conclude that the rural development interventions did have a significant impact on a case-by-case basis.

9.4 Evaluation Question 4

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

Grants were a common means of financing projects across the spectrum of NEO activities. They were frequently coupled with ongoing training and technical assistance, which qualitative respondents indicated to be highly valued. In this respect, we can consider them to be an effective means of addressing project goals when taken together. Indeed, qualitative respondents uniformly stressed the importance of the training received saying that without the training, they would not have been able to perform as well as they did.

Regarding rural productivity investments, grants were utilized as the primary means of assistance and cost-sharing requirements were flexible. Contributions on the part of the grantee generally ranged from 30% to 70% and could include labor and operational costs. We were impressed to see that despite this highly flexible (and arguably low) requirement, the sustainability of projects observed by qualitative researchers was strong across-the-board. Qualitative respondents cited careful project selection and delivery of flexible training and technical assistance to accompany grants as a key means of success in this area. We can therefore reasonably conclude that high cost-sharing requirements do not necessarily have a causal link to more sustainable enterprise investments. Rather, careful project selection, training and technical assistance should be emphasized when utilizing grant-based mechanisms.

Finally, we saw that Component 2 and 3 beneficiaries strongly valued the capacity development and technical assistance that were provided by NEO as part of the grant making process, and that were delivered flexibly on a demand-driven basis. We would cite this as a success and as something that has shown itself to be of value for grantees across-the-board. We also observe that training and technical assistance might have been more sustainably delivered through local institutions, including ones that will be available to grantees after the conclusion of the project.

The large number of insignificant results in the rural development analysis indicates that providing grants and other types of assistance may not have been sufficient to generate significant impacts in all cases; however, the evidence from the qualitative research suggests that they are, nonetheless, necessary components of the intervention package contributing to project impacts where they occurred. In other words, in those cases where a significant impact was observed, the grants and technical assistance provided by the project played an integral and necessary role in increasing the income generated from participant’s on-farm production and enterprise self-employment activities.

Illustrative Quotes
<ul style="list-style-type: none"> • “Last year I was first to use plastic mulch with the lettuce, and it’s very good.” -Producer from Gori • “We organized our production according to the received knowledge.” -Producer from Samegrelo • “We learned everything all the way from planting.” –Producer from Zugdidi

9.5 Evaluation Question 5

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

NEO worked with IDPs and vulnerable individuals to increase their access to financial services. Owing to their IDP or vulnerable status, however, this group of beneficiaries was not eligible to receive commercial loans. Consequently, NEO adopted the strategy of providing no or low cost loans to them via its implementing partner CHCA for the purpose of investing in project-supported livelihood activities. The idea was that once they started to generate income from their investments and repay their CHCA loans, they would demonstrate their creditworthiness and thus put themselves in a better position to access commercial in the future.

Evidence from the qualitative research indicates that this appears to be occurring in certain cases. For example, qualitative respondents in Samegrelo noted that they have since received additional loans from microfinance organizations to expand their businesses, and that their experience borrowing from CHCA has helped them to understand lending and establish a credit history. There thus exists anecdotal evidence that NEO’s access to finance interventions were instrumental in helping some IDP and vulnerable beneficiaries access commercial credit for the first time, and they have potentially put others in a position to access commercial credit in the future.

Turning to the quantitative evidence, however, there exists insufficient evidence to conclude that participation in the NEO project facilitated a broad-based increase in access to financial services among participants in NEO's rural development and vocational education activities. To the extent that NEO's access to credit interventions did help IDPs and vulnerable individuals access commercial credit, this impact appears to exist more on a case-by-case than as a generalized phenomenon.

9.6 Evaluation Question 6

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?*

NEO's support to households under Component 3 has produced a number of significant impacts. First, livelihood support to small-scale agricultural producers under Component 3 has had a significant and positive impact on the on-farm income earned by cane fruit, stone fruit and hazelnut producers. Second, vocational education training also had a significant impact on the sales and income generated from non-agricultural (enterprise) self-employment. The absolute size of these impacts is, moreover, large, indicating that, if they are sustained, they can be expected to make a significant contribution to improving the economic wellbeing of participant households and sustainably alleviating their poverty and vulnerability to shocks where relevant.

The qualitative research reinforces the importance of financial support and training provided to Component 3 beneficiaries along with livelihood packages and vocational education as a means to leverage the project support to generate better livelihood outcomes to the point where some vulnerable beneficiaries valued the training and financial support more the livelihood package itself.

The qualitative results further suggest that participation in the Component 3 activities are important in helping beneficiaries address immediate subsistence needs in that most of the extra income earned as a result is used to meet the household's short-term consumption needs. On the surface, this finding might suggest that the Component 3 interventions contribute more to short-term poverty alleviation, it must be remembered that funds within a household are fungible, meaning that extra earnings used to meet short-term consumption needs frees up other money to make other long-term productivity enhancing investments, such as productive assets, business expansion or education. So far there is no evidence that this is occurring to a wide extent, but it remains a viable possibility and may yet produce the longer-term benefits the project is seeking here.

Beneficiaries of both vocational training and livelihood packages valued training and technical assistance provided directly by NEO project staff, who were both knowledgeable and available. As noted above, this proved to be a highly effective approach, although one that might be better delivered by a sustainable non-project market actor (as it was in one case we found with local beehive suppliers). Perhaps the most intangible, but potentially impactful, result of these activities was the extent to which they motivated and

catalyzed grantees to expand their activities and engage in new ones. Qualitative respondents consistently pointed to increased confidence and stimulus as a result of these activities.

Even though vocational education participants did not, by and large, use their vocational education training to find new wage or salaried jobs, they appear to have effectively utilized it to increase their employment in and returns to enterprise self-employment. In the case of training for hair stylists, for example, those that previously worked only with men learned skills to provide services to women as well. Participants in sewing training noted an increased number of customers due to their newfound ability to produce more complicated products than before. Three of the vocational education participants interviewed in Tskaltubo, one in Tsageri and two in Gori, have opened their own businesses.

9.7 Evaluation Question 7

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

Overall, we are unable to conclude that the project *systemically* affected men and women differently in the project communities. NEO did not employ a particular emphasis on gender issues or on women's participation. NEO's gender focus was largely limited to disaggregating monitoring data by gender and tracking women's participation. Gender participation in activities tended to reflect local demographics, according to the specific nature of the economic development activity. For example, strawberry production was well represented by women. In fact, a woman chaired the association of berry producers. However, men dominated the more traditional agricultural activities, although researchers observed a number of women-led initiatives in this space as well. In the case of LED planning activities, women were highly engaged in mobilization processes and leadership roles.

Notwithstanding, the gender analysis found a number of instances in all three datasets in which results differed significantly among male and female beneficiaries. With regards to NEO's LED activities, female beneficiaries acquired more favorable perceptions of their local government than did male beneficiaries on a number of outcome variables, while also acquiring less favorable attitudes than their male counterparts on several measures of civic engagement. Compared to their male counterparts, on average female vegetable and grain farmers produced more kilograms and created more jobs, stone fruit and hazelnut producers increased on-farm income less, and women beneficiaries overall adopted more new technologies and practices.

Among vocational education beneficiaries, household income grew more slowly among female beneficiaries, while female beneficiaries engaged in agricultural self-employment and increased land under cultivation and sales at lower rates than their male counterparts. In contrast, female beneficiaries expressed greater satisfaction with the vocational education than did male beneficiaries, while their perceptions of the benefits received from the vocational education training showed significantly higher improvements from the baseline to the endline than did that of male beneficiaries.

9.8 Research Hypothesis 1

1. *Participation in LED activities improves citizen's perceptions of local government.*

Participation in NEO's LED activities have had a number of significant positive impacts on how participants perceive their local governments relative to non-participants. These include positive impacts in the following areas:

- Perception that local government works well
- Perception that local government spends its money wisely
- Perception that local government is good at solving problems
- Perception that local government is honest and trustworthy
- Perception that local government officials place the needs of the local community over their personal interests
- Perception that local government officials place the needs of the local community over the interests of their political party
- Knowledge about how to contact a local government official

Although such positive impacts were not universal across all the relevant outcome variables, they were numerous enough to allow the conclusion that NEO's LED activities did exert a significant and positive impact on citizens' perceptions of local government.

9.9 Research Hypotheses 2 & 3

2. *Participation in LED activities increases citizens' participation in local government; and*
3. *Participation in LED activities increases citizens' level of civic engagement.*

Given the overlap between research hypotheses 2 and 3, the conclusions reached apply to both and are thus discussed jointly below.

The findings presented above support the conclusion that participation in NEO's LED activities has had a number of significant and positive impacts on beneficiaries' participation in local government and their level of civic engagement relative to non-beneficiaries. These positive impacts include the following:

- Frequency of attending a public meeting with a local government official
- Frequency of attending a public meeting of village members
- Frequency of getting together with others to raise an issue or problem
- Frequency of performing volunteer work

Qualitatively, the local governments' engagement with citizens in NEO's LED activities over the course of the project was also significant. The primary agents of this participation were the Rtsmunebulis. Five of 11 FGDs conducted noted an increased capacity for community-level decision-making, much of which was done in collaboration with governmental process participants.

Implementation of the LED process generally followed sound practices in terms of opening up attendance to community meetings and working groups, facilitating participation at community meetings and working groups, developing LED plans, and prioritizing economic development initiatives. This finding is balanced, however, by the observation among the qualitative respondents that none of the plans developed under NEO appeared to have been revisited or acted upon after conclusion of the NEO project in their respective communities. As well, no respondents were able to point to instances of community LED plans being incorporated into MED plans. On top of this, awareness of NEO's LED activities and infrastructure projects outside of the direct participants is generally low within NEO's LED communities. This finding introduces questions regarding the sustainability of this particular form of civic engagement; however, we must also note the high levels of government turnover due to multiple elections during the period of NEO implementation may have adversely influenced this outcome.

9.10 Research Hypothesis 4

- 4. Participation in LED activities improves citizens' perceptions of civic engagement.*

We are unable to conclude that participation in NEO's LED activities has significantly improved citizens' perceptions of civic engagement relative to citizens in non-beneficiary communities. The one significant and positive impact in this area was an increase in citizens' perceptions that community members were responsible for solving community problems.

9.11 Research Hypothesis 5

- 5. Participation in LED activities increases citizens' awareness of local government services, including who is responsible for delivering those services.*

Overall, the evidence does not support the conclusion that participation in NEO LED activities has had a significant impact on how participants view the role of their local governments in providing public services. The exception to this finding had to do with the local government's role in providing clean drinking water, where a significant and positive impact on citizens' awareness was found. Water provision was the focus of a number of village infrastructure projects, thus suggesting that, in this area, the NEO project did indeed achieve its impact objectives.

Further, when asked a series of questions assessing participants' knowledge of their local government – how to get involved with local government, how to contact a local government official, what services the local government is providing, what quality of service one should expect from local government, where

to get information on the local government, and whether the local government is delivering on its promises – the one outcome variable that demonstrated a significant change from the baseline to the endline, relative to non-participants, was participants’ knowledge about how to contact a local government official. Thus the evidence in this case is insufficient to conclude that NEO’s LED activities had a significant positive impact on citizens’ knowledge of their local government.

9.12 Research Hypothesis 6

6. *Participation in LED activities increases citizens’ satisfaction with local government services.*

Participation in NEO’s LED activities has had a number of significant positive impacts on beneficiaries’ satisfaction with local government services relative to non-beneficiaries. These positive impacts include the following:

- Satisfaction with local government (in general)
- Satisfaction with interactions with Trustees (Rtsmunebulis)
- Satisfaction with local government provision of clean drinking water
- Satisfaction with local government maintenance of local roads
- Satisfaction with local government provision of clean drinking water
- Satisfaction with local government illumination of streets/roads
- Satisfaction with local government provision of cultural activities
- Satisfaction with local government maintenance of cemeteries

The above findings provide strong evidence to conclude that participation in NEO’s LED activities did produce increased levels of satisfaction with local government services among LED participants. We also observed high levels of satisfaction among qualitative respondents with the infrastructure projects supported by NEO. FGD and KII respondents indicated that these projects generally reflected the local government’s priorities and were implemented with high quality standards.

To assess NEO’s objective to increase adult perception in local government’s ability to provide responsive services by 20%, we looked at two different measures. The first measure is LED participants’ overall assessment of their local government. In this case, their assessment on a 5-point scale fell from 3.05 to 2.93, but relative to the corresponding change among control respondents, after controlling for observable factors, actually increased by .38 points representing a relative 12.4% increase. While this increase falls short of the 20% objective, it does represent a significant impact, nonetheless.

The second measure is the average satisfaction score across the nine satisfaction indicators listed in Table 10. In this case, the average score among project participants increased by .171 points on the 5-point scale relative to non-participants, and the difference was statistically significant. This represented a 7.1% increase over the baseline value, which again falls below the 20% objective.

9.13 Research Hypothesis 7

- 7. Participation in rural economic development activities improves the food security of beneficiary households.*

The incidence of food insecurity was very low among both treatment and comparison respondents in each of the three study populations at the baseline indicating that both the beneficiary and non-beneficiary samples were drawn from food secure populations. Not surprisingly, therefore, we found little change in food security in both treatment and comparison groups from the baseline to the endline such that there was insufficient evidence to conclude that a widespread impact on food security had occurred.

With that said, there was recurring anecdotal evidence from the qualitative research that livelihood package recipients used the proceeds generated from their project-supported livelihood activities to spend on household subsistence items. Thus while we are unable to conclude that a wide-spread impact on food security occurred, the project's livelihood support interventions do appear to have helped a number of beneficiary households meet their household subsistence needs.

9.14 Research Hypothesis 8

- 8. Participation in rural economic development activities increases the average value of on-farm and enterprise income among small agricultural producers and vulnerable households. (Components 2 and 3)*

Participation in NEO's rural development activities did produce significant improvements in the average value of on-farm income earned by cane fruit, stone fruit and hazelnut producers. These improvements were, moreover, both relatively and absolutely large.

Qualitatively, KII and FGD respondents who participated in the rural economic development activities and representing the full range of agricultural production activities supported under Components 2 and 3 noted consistent increases in on-farm income. Impressively, none of the farms/enterprises visited had ceased to function by the time of the evaluation. The qualitative evidence thus supports the conclusion that positive impacts on on-farm income cut across the agricultural commodities supported by the project, although, outside of cane fruit and stone fruit/hazelnut producers, this impact appears to exist on a case-by-case basis only.

9.15 Research Hypothesis 9

- 9. Participation in rural economic development activities leads to increased yields of targeted agricultural commodities. (Components 2 and 3)*

Despite the fact that yields generated by supported farmers consistently increased from the baseline to the endline, these increases were not large enough in relation to non-beneficiary farmers to conclude that NEO's rural development activities had an impact on on-farm yields. Neither can we thus conclude that NEO has met its target of increasing the average value of household production by 25% for agricultural grants and training beneficiaries, and by 15% for livelihood package recipients.

Qualitatively, KII and FGD respondents who participated in the rural economic development activities and representing the full range of agricultural production activities supported under Components 2 and 3 noted a number of cases in which on-farm yields increased. The qualitative evidence thus supports the existence of positive impacts on on-farm production that cut across the agricultural commodities supported by the project, although this impact appears to exist on a case-by-case basis only.

9.16 Research Hypothesis 10

10. 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)

NEO placed relatively high priority on introduction of new commodities (e.g. strawberry, lettuce) and production practices (e.g. drip irrigation, mulch), and we found a very high level of satisfaction and productivity among beneficiaries of these activities in the qualitative research. In most of these cases, activities had continued and expanded. Importantly, respondents indicated high levels of interest on the part of their neighbors to adopt the same technologies and practices leading to the conclusion that some, albeit unknown, demonstration (spillover) effects via copying did occur.

Nonetheless, the quantitative analysis found insufficient evidence to support a conclusion that the adoption rate of new technologies and practices among project participants was higher than among non-participants suggesting the conclusion that the success stories reported by the qualitative research are more the exception than the norm.

With that said, the strongly counterintuitive nature of this finding (only 0.3 new technologies and practices adopted in the endline) raises the possibility that some miscommunication took place translating the general response categories in the survey questionnaire into the specific technologies and practices adopted by beneficiary farmers and then back again. This explanation, however, is mitigated by the practice adopted in the field by survey enumerators to provide more precise definitions provided by NEO for general response categories judged to be particularly vague.

9.17 Research Hypothesis 11

11. Participation in rural economic development activities raises beneficiary households above the minimum subsistence level. (Components 2 and 3)

For farmers participating in NEO's rural development activities, on-farm income is an important source of household income. Consequently, an increase in household income derived from farming activities is bound to translate at some point to a corresponding (if not always proportional) increase in household income thereby helping to lift the household above the minimum subsistence level.

Among cane fruit and stone fruit/hazelnut producers participation in the rural development activities translated into a GEL 2,304 (USD 960) (1,052%) increase in on-farm income in the first case and a GEL 3,872 (USD 1,613) (845%) increase in on-farm income in the second case. We thus conclude that participation in the rural development activities has led to a significant improvement in the economic situation of these beneficiary households relative to the minimum subsistence level.

The qualitative findings further support the conclusion that rural development activities have helped certain beneficiaries to address immediate subsistence needs in that most of the extra income earned as a result is used to meet the household's short-term consumption needs. This practice has the effect in the short-term of helping the households meet their subsistence needs, while in the long-term, it frees up money to invest in productivity-enhancing assets that will help the households meet or exceed their subsistence needs into the future, assuming these changes are sustained over time.

The impacts described above, however, have yet to translate into significant measurable changes in overall household expenditure levels, which serve as a proxy for household income. Thus, for the time being, we are not able to conclude that NEO has met its target to raise 25% of targeted households above the official subsistence level. If, however, current trends among cane fruit and stone fruit/hazelnut producers continue, we have good reason to believe that household incomes among these producers will likewise increase significantly over time raising those households, where relevant, over the minimum subsistence level.

9.18 Research Hypothesis 12

12. Participation in rural economic development increases income diversification among vulnerable households. (Components 2-3)

We conclude that NEO did in fact assist participants and their households to diversify into new income generating activities. Several rural development beneficiaries interviewed as part of the qualitative research diversified their skills and production with assistance from NEO. These included agricultural training participants, vocational training participants and livelihood package recipients. Such diversification outcomes were built directly into NEO's assistance strategy. Agricultural training participants learned a variety of new cultivation techniques and were assisted in many cases by NEO to move into new production areas, while many on their own found new distribution channels for their

products. Vocational training participants often branched into new product lines and markets, while livelihood package recipients learned to cultivate new crops or keep bees, and enjoyed high quality skills training and technical assistance delivered by NEO.

9.19 Research Hypothesis 13

13. Participation in vocational education activities leads to improved long-term employment among vulnerable household members. (Component 3)

The vocational education activities had a significant impact on participants' employment as evidenced by the large shift among participants from unemployment, paid employment and agricultural self-employment to enterprise self-employment. This conclusion, moreover, is consistent with the qualitative evaluation findings as well as with NEO's own internal monitoring data, which both found a large impact of the vocational education training on the number of participants finding employment via enterprise self-employment.

This shift to enterprise self-employment, moreover, was accompanied by a more than GEL 1,534 (USD 639) (60.1%) increase in income earned from enterprise self-employment relative to non-participants indicating both improved short-term employment and optimistic implications for participant's long-term employment outcomes.

10 RECOMMENDATIONS

In this section, we draw on the findings and conclusions found above to present a set of recommendations for consideration in future USAID LED, rural development vocational education programming. Proposing recommendations in this case is complicated by the mixed nature of the quantitative findings in each of the three study populations. In this regard, we are assisted by the qualitative findings, which have provided additional insight about which aspects of the intervention designs worked well, which were most valued by beneficiaries and which appeared to be most associated with successful intervention outcomes where they occurred. Recommendations below are grouped into those that recommend the adoption of approaches currently being implemented by NEO and those that recommend new approaches not currently being implemented by NEO.

10.1 Local Economic Development

Existing approaches

- Continue to utilize professional contractors for technical work associated with infrastructure rehabilitation to maintain high positive perceptions of project quality.
- For activities seeking to engage municipal government, support to infrastructure has clear value in catalyzing their involvement. Expect high levels of cost-share.

New approaches

- Review the utility of LED planning at the community level, as plans tend to be similar across multiple communities and there is weak evidence of their utilization.
- While we do recommend municipal engagement in LED planning, consider disassociating plans and projects due to the evident tendency for those priorities with the most feasible municipal funding prospects to be prominently identified.
- Explore other opportunities to promote the engagement of citizens with government (advocacy, civic education, association development, etc.) beyond LED planning and project prioritization, a strategy that appears to have had limited impact in this area.
- Where LED planning is undertaken, build-in incentives for follow-up and updating of plans.
- Explore synergies beyond the community/municipal link when conducting economic development planning activities, including opportunities to engage other government programs (e.g. VSP), local CSOs, and the private sector.
- Consider strengthened citizen education and outreach efforts to expose community members to mandated governmental planning processes, and make communities more explicitly aware of the existence of such plans and methods of engaging with government (i.e. citizen rights and responsibilities).
- Consider additional initiatives focused on small infrastructure projects. These projects, as implemented by NEO, are highly valued by communities. In terms of public relations objectives, they appear to have tremendous value.
- Consider mandating community cost-share, particularly if community ownership/maintenance of infrastructure assets is desirable. Alternatively, or in addition, include community maintenance planning as an integral part of the infrastructure investment strategy.

10.2 Rural Development

Existing approaches

- Link the provision of technical assistance and training with the introduction of new commodities and technologies.
- Vet potential grantees carefully prior to making enterprise development grants. Careful grantee selection may be more important than high cost-share/investment thresholds on the part of the grantee.
- Couple grant-making with a robust menu of training and technical assistance, preferably from sustainable local services providers rather than the project implementer itself.
- Link beneficiaries to local services providers for technical assistance and training and work with the latter to develop their capacity. Training and capacity development for beneficiary farmers and enterprise owners/operators is most sustainable when provided by local service providers rather than a project itself.
- Do not necessarily expect micro-grants, in-kind support and capacity building interventions provided as part of a livelihood support intervention to produce large productivity enhancing and income results. In many cases, this form of assistance is more likely to address important subsistence needs than to generate significant increases in on-farm or enterprise production and income.

- Link toolkits with robust training, ideally from sustainable local sources rather than the project itself. Make sure the training is on-demand, to the maximum extent possible.

New approaches

- Contract farming arrangements should be carefully assessed to determine if there is demand among producers for such services prior to engaging in producer/wholesaler linkage creation. More generally, consider expanding interventions on the demand side for agricultural products produced by target farmers in addition to the supply side (production). Even though the contract farming arrangement in this case did not work, there are numerous other options for strategic interventions to create and/or strengthen the commercial linkages between targeted producers and buyers. In the end, without a market to sell their products, targeted farmers are unlikely to continue the production/post-production practices facilitated by the project. This is particularly the case for practices aimed at increasing product quality. Without links to buyers willing to pay a price that captures the value-added of improved quality, there is little incentive for farmers to continue quality enhancing practices or investments.
- Consider expanding interventions in input markets (e.g., seeds, chemicals, equipment, etc.) so as to link targeted farmers with a reliable and long-term supply of critical inputs that are necessary to sustain the production/post-production practices facilitated by the project. Where the project provides in-kind access to production inputs, it is particularly important to ensure that targeted farmers have access to input suppliers who can replace or repair inevitably worn out or broken equipment.
- Identify opportunities to leverage public and private investments in grant-making activities, potentially building off of existing LED plans and government infrastructure financing priorities.
- Beware that larger value grant recipients may require credit to meet co-financing requirements. These borrowers should be actively vetted and linked to credit sources when appropriate.

10.3 Vocational Education

New approaches

- Clarify objectives for vocational training, specifically the extent to which these activities should result in diversification of client bases for individuals already engaged in a specific trade, or enable participants new to the economy and lacking skills to obtain formalized employment.

Existing approaches

- Assess the demand characteristics among intended beneficiaries and design the vocational education training appropriately. This is something NEO did particularly well, and other projects can learn from NEO's experience here. The large majority of NEO's vocational training participants were from rural communities where there are limited opportunities for wage or salaried employment. These rural economies are dominated by family-run microenterprises, which generally do not hire many, if any, outside workers. NEO's approach to vocational education thus focused on enterprise self-employment, as it was clearly identified as the most suitable approach. This focused approach, in turn, proved effective in helping graduates find gainful employment via enterprise self-employment.

10.4 Gender

New approaches

- Assess the extent to which project activities need to address gender inequities in particular areas (e.g. governance, community development, economic development, etc.) and build in specific objectives around those inequities wherever warranted. Projects should not expect gender impacts to happen organically, or as a fortuitous result of project implementation, but should have an explicit gender strategy with a set of clear objectives that go well beyond counting or disaggregated results.

11 Annexes

11.1 Annex 1: Evaluation Statement of Work

Attachment 1

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

(Revised February 2015)

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 municipalities¹⁸ (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

¹⁸ Defined as group of villages. Selected municipalities include: Oni, Tsageri, Kazbegi, Lentekhi, Kareli, Dusheti, Khashuri, Gori, Tsalenjikha and Zugdidi.

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 criteria¹⁹:

- 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 results²⁰. The evaluation team 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.

¹⁹ NEO Annual Workplans - will be shared with the evaluation team each year.

²⁰ 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

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 of the third and final component to USAID no later than September 15, 2015 COB Tbilisi time, and must finalize the report based on feedback within 5 days of receiving comments.

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

PERIOD OF PERFORMANCE

The period of performance for this Contract is April 10, 2012 to October 30, 2015.

REPORTS AND DELIVERABLES OR OUTPUTS

In addition to the requirements set forth for submission of reports in Section I in the AIDAR clause 752.242-70, Periodic Progress Reports, the Contractor must submit the following reports, deliverables or outputs to the COR specified in Section G.

All reports must be submitted in electronic copy to USAID on the following address:

USAID/Caucasus Georgia
Office of Program and Project Support
11, Georgia Balanchine Street
Tbilisi 0131 Georgia

1. *Written Evaluation Design Plan* (for all three components of the evaluation. The plan for component 1 must be more detailed including the work plan as discussed below) to outline methodology for each evaluation question in detail, main features of data collection instruments, and data analysis plan.

Work Plan for component I to be included. For component III work plans must be presented separately to USAID during the in brief of each visit. The work plan must include the anticipated schedule and logistical arrangements and delineate the roles and responsibilities of members of the evaluation team. These documents must be finalized based on the mission's comments (if any) after the in brief meeting. This must be completed by the evaluation team within five days after presenting preliminary plan to USAID.

2. *In brief* with the mission — within three days of arrival in country, the team must present a design plan and a work plan. These will take place during every visit separately.
3. *Out briefing* with the mission — one day prior to departure, the team must present bullet points of the summary of preliminary results. These will take place during every visit. The out briefs for the component III must also present draft findings, conclusions and recommendations.
4. *Draft Report* — Component I: Component 1.1 Draft report is due to USAID on August 31, 2012 and Component I.2 Draft report is due to USAID on September 30, 2013. Component III report is due to USAID no later than September 15, 2015.
 - a. Component I report: must cover the evaluation plan; information about "control" and "treatment" groups; and baseline survey results
 - b. Component II report: results of final survey; final results of the evaluation: clearly outlined evaluation findings/conclusions/recommendation.
 - c. Component III report: results of final survey; final results of the evaluation: clearly outlined evaluation findings/conclusions/recommendation.
5. *Final Report* — The evaluation team must incorporate USAID's comments and submit the final report within five days following receipt of comments on the draft report. The final report must meet the criteria outlined in the USAID Evaluation Policy of January 2011 the evaluation report (given below).
6. All records from the evaluation (e.g. interview transcripts and summaries, etc.) must be provided to the evaluation COR. All qualitative data collected by the evaluation team must be provided in an electronic file in easily readable format. The data must be organized and fully documented for use by those not fully familiar with the project or the evaluation. USAID will retain ownership of the survey and all datasets developed.

11.2 Annex 2: Statement of Differences

The following was submitted by Chemonics:

After multiple reviews of draft reports and rounds of comments correcting findings, conclusions, methodologies, and the presentation of results, NEO presents this statement of difference to explain our position regarding remaining items and limitations which have not been addressed by the evaluation team. We respect the independence of the evaluation but disagree with several statements in the report as outlined below.

We appreciate the revised language included in the report, particularly the statement that reads: *Yet another possible explanation for the low adoption rates reported by NEO beneficiaries is that the original list of 17 new technologies and practices did not, in the end, capture the full range of new technologies and practices promoted by the project, as NEO introduced additional technologies and practices over time that were not included in the original list of 17. Or, related to this is the possibility that in the process of recording specific answers into general response categories something got lost in the translation, which may have produced a systematic undercounting of technologies or practices adopted, despite enumerators' efforts to clarify technology/practice definitions.* NEO continues to dispute the results based on the quality of the survey question, which did not capture the range of technologies and practices introduced by NEO or lumped them into a single category of "new or improved production practices." As illuminated in the table provided in the external evaluators' most recent responses, there was no definition provided for the question about the adoption of new or improved production practices (TP 1.2). We believe that the likelihood that respondents misunderstood this question, are highlighted by the stark differences in results between NEO's own data, which shows that *all* NEO-supported rural development beneficiaries adopted new or improved production practices, while the evaluators results show only .3% new or improved production practices adopted.

We also disagree with the presentation of results from NEO's internal monitoring system as elaborated in section 8.2.10 of the revised evaluation. In response to the initial draft evaluation, NEO cited several sources of information to argue for a fair representation of results (mostly addressed in the current version) and to provide context to some of the evaluation findings. These sources included the evaluation team's own qualitative findings, NEO's internal monitoring system, and results from another external evaluation of NEO activities. However, in the presentation of the results Banyan Global chooses to focus on NEO's internal monitoring system dismissing its value based on the NEO's use of absolute changes against the *relative* changes of control and treatment groups examined in the external evaluation. This does not take into account the results from the other external evaluation of NEO activities, which also evaluated *relative* changes in income and showed results averaging 176 percent. This evaluation was also conducted using a difference-in-difference model which, in fact, covered a period of about three years compared to Banyan Global's evaluation which only covered two years of a five year project. Additionally, this other external evaluation conducted a baseline survey of control and treatment groups once rural development beneficiaries were identified, compared to Banyan Global's baseline survey which was conducted after 58 percent of NEO's original period of performance had elapsed.

11.3 Annex 3: Sample Distribution across Surveys, Municipalities, Communities and Villages

11.3.1 LED Survey

Municipality	Sakrebulo	Village	Treatment (N)	Control (N)
Gori	Ateni	Ateni	19	
	Variani	Variani	19	
	Skra	Skra	20	
	Mereti	Mereti	20	
	Tiniskhidi	Ortasheni		19
	Karaleti	Karaleti		20
	Boshuri	Biisi & Bobnevi		18
	Ditsi	Ditsi		18
Total Gori			153	
Khashuri	Tsagvli	Kvemo Brolosani & Zemo Brolosani	16	
	Ali	Brili	17	
	Phlevi	Patara Phlevi	15	
	Tsokhnara	Tsotskhnara		24
	Abisi	Abisi (Kareli)		25
Total Khashuri			97	
Kareli	Dirbi	Gvlevi	20	
	Ftsa	Kvemo Shakshketi	23	
	Bebnisi	Aphnisi & Leteti		22
	Abisi	Berdzenauli		22
Total Kareli			87	
Dusheti	Kvesheti	Kvesheti	14	
	Mchadijvari	Ebnisi & Kvitkiristskaro	21	
	Chartali	Chartali		18
	Gremiskevi	Kedeloba & Petriani		19
Total Dusheti			72	
Kazbegi	Sioni	Sioni	15	
	Goristsikhe	Goristsikhe		16
Total Kazbegi			31	
Zugdidi	Akhalsofeli	Jumi	17	
	Ingiri	Oireme	15	
	Korckheli	Bashi	12	
	Chkhorია	Tkaia	14	
	Narazeni	Shamadela	19	
	Urta	Urta		19

Municipality	Sakrebulo	Village	Treatment (N)	Control (N)
	Chitatskaro	Chitatskaro		15
	Rike	Rike		17
	Abastumani	Khetsera		17
Total Zugdidi			145	
Tsalendjikha	Fakhulani	Tkoushi	20	
	Chale	Photskho	12	
	Lia	Lia		19
	Chkvaleri	Leshamage		22
Total Tsalendjikha			73	
Oni	Gari	Gari	19	
	Sheubani	Sheubani		20
Total Oni			39	
Tsageri	Gvirishi	Utkheri	16	
	Okureshi	Okureshi		26
Total Tsageri			42	
Lentekhi	Rckhmeuli	Rtskmeuli	19	
	Nakuraleshi	Nakuraleshi & Tskhukureshi (Tsageri)		28
Total Lentekhi			47	
Total Number of Villages = 47				
Total Number of Sakrebulos = 42				
Total Number of Municipalities = 10				

11.3.2 Rural Production Survey

Municipality	Sakrebulo	Village	Treatment (N)	Control (N)
Gori	1. Variani	1. Variani	12	3
	2. Shavshvebi	2. Shavshvebi	12	4
		3. Natsreti		
		4. Tsitelubani		
	3. Nikozi	5. Nikozi	10	10
		6. Zemo Nikozi		
		7. Zemo Khviti		
		8. Khviti		
	4. Tirzniisi	9. Ergneti	3	2
	5. Mejriskhevi	10. Mejriskhevi	9	4
		11. Zerti		
Total Gori			46	23
Kareli	6. Dirbi	12. Dirbi	0	1
	7. Avlevi	13. Avlevi	6	8
		14. Tseronisi		
	8. Bredza	15. Bredza	9	12
	9. Breti	16. Breti	18	13
	10. Dvani	17. Dvani	31	30
		18. Takhtisdziri		
11. Mokhisi	19. Mokhisi	6	8	
Total Kareli			70	72
Dusheti	12. Mchadijvari	20. Mchadijvari	7	7
	13. Chonkadze	21. Aragvispiri	15	16
		22. Bulashauri		
	14. Dusheti	23. Dusheti	11	12
		24. Ananuri		
25. Kobiantkari				
Total Dusheti			33	35
Kazbegi	15. Sioni	26. Sioni	5	4
	16. Gergeti	27. Gergeti	6	9
	17. Arsha	28. Arsha	6	7
	18. Sno	29. Achkhoti	5	4
	19. Stepantsminda	30. Stepantsminda	4	6
Total Kazbegi			21	26
Zugdidi	20. Akhalsofeli	31. Akhalsopheli	3	5
	21. Chkhorbia	32. Chkhorbia	16	15
	22. Darcheli	33. Darcheli	6	9
	23. Didinedzi	34. Oireme	11	11

Municipality	Sakrebulo	Village	Treatment (N)	Control (N)
	24. Ergeta	35. Ergeta	7	8
	25. Ingiri	36. Ingiri	2	3
	26. Kakhati	37. kakhati	15	19
	27. Koki	38. Koki	13	13
	28. Kortskheli	39. Kortskheli	8	5
	29. Narazeni	40. Narazeni	6	7
	30. Oktomberi	41. Oktomberi	9	12
	31. Orsantia	42. Orsantia	20	17
	32. Orulu	43. Orulu	11	13
	33. Shamgona	44. Shamgona	6	3
	34. Tsaishi	45. Bashi	15	12
	35. Zugdidi	46. Zugdidi	3	8
Total Zugdidi			151	160
Tsalendjikha	36. Fakhulani	47. Tskoushi	28	27
		48. Fakhulani		
	37. Chale	49. Chale	20	15
	38. Tsalenjikha	50. Tsalenjikha	14	15
	39. Jvari	51. Jvari	10	12
	40. Nakifu	52. Nakifu	20	20
		53. Nanjaru		
41. Jgali	54. Jgali	3	1	
Total Tsalendjikha			95	90
Oni	42. Ghari	55. Ghari	7	7
	43. Ghebi	56. Ghebi	12	15
		57. Patara Ghebi		
	44. Glola	58. Glola	8	9
	45. Kvashkhieti	59. Kvakhieti	3	3
46. Utsera	60. Utsera	1	1	
Total Oni			31	35
Tsageri	47. Lailashi	61. Lailashi	3	3
	48. Gvirishi	62. Utskheri	3	3
	49. Tvishi	63. Tvishi	5	5
		64. Orkhevi		
50. Lasuriashi	65. Makhashi	3	3	
Total Tsageri			14	14
Lentekhi	51. Lentekhi	66. Lentekhi	6	8
Total Lentekhi			6	8
Tianeti	52. Tianeti	67. Sioni	5	7
Total Tianeti			5	7
Total Number of Villages = 67				

Municipality	Sakrebulo	Village	Treatment (N)	Control (N)
Total Number of Sakrebulos = 52				
Total Number of Municipalities = 11				

11.3.3 Vocational Education Survey

Municipality	Sakulo	Village	Treatment (N)	Control (N)	
1. Gori	1. Variani	Variani	1	3	
	2. Shavshvebi	Shavshvebi	10	18	
	3. Shavshvebi	Natsreti	1	0	
	4. Mejvriskhevi	Zerti	1	1	
	5. Tirznisi	Ergneti	2	2	
Total Gori			39		
2. Kareli	6. Dirbi	Dirbi	2	2	
	7. Avlevi	Avlevi	1	2	
	8. Bredza	Bredza	4	5	
	9. Breტი	Breტი	4	8	
	10. Breტი	Sagolasheni	2	0	
	11. Dvani	Dvani	5	6	
	12. Dvani	Takhtisdziri	3	3	
	13. Mokhisi	Mokhisi	9	10	
	14. Akahalsofeli	Akahalsofeli	10	0	
	15. Giganti	Sasireti	2	0	
	Total Kareli				
	3. Dusheti	16. Chonkadze	Aragvispiri	3	3
		17. Dusheti	Dusheti	6	8
		18. Dusheti	Bazaleti	2	0
		19. Magaroskari	Chargali	1	0
Total Dusheti			23		
4. Kazbegi	20. Gergeti	Gergeti	5	9	
	21. Arsha	Arsha	2	2	
	22. Stepantsminda	Stepantsminda	3	7	
Total Kazbegi			28		
5. Zugdidi	23. Akhalsopheli	Akhalsopheli	2	1	
	24. Darcheli	Darcheli	1	2	
	25. Didzineti	Oireme	0	4	
	26. Ergeta	Ergeta	2	2	
	27. Ingiri	Ingiri	2	3	
	28. Kakhati	Kakhati	1	3	
	29. Koki	Koki	5	11	
	30. Kortskheli	Kortskheli	3	1	
	31. Kortskheli	Natsatu	0	0	
	32. Narazeni	Narazeni	1	1	
	33. Narazeni	Sabechviano	0	0	
	34. Oktomberi	Oktomberi	5	7	

	35. Orsantia	Orsantia	3	3
	36. Orulu	Orulu	2	4
	37. Shamgona	Shamgona	5	3
	38. Tsaishi	Bashi	3	9
	39. Zugdidi	Zugdidi	6	5
	40. Chkaduashi	Chkaduashi	1	0
	41. Chkhorია	Chkhorია	3	3
Total Zugdidi			106	
6. Tsalendjikha	42. Fakhulani	Fakhulani	4	5
	43. Chale	Chale	4	5
	44. Tsalendjikha	Tsalendjikha	33	34
	45. Jvari	Jvari	12	12
	46. Nakifu	Nakifu	5	5
	47. Nanjaru	Nanjaru	0	0
	48. Jgali	Jgali	15	23
Total Tsalendjikha			157	
7. Senaki	49. Senaki	Senaki	11	
8. Oni	50. Ghari	Ghari	14	15
	51. Ghari	Tsmendaure	1	0
	52. Ghebi	Ghebi	4	5
	53. Ghebi	Patara Ghebi	1	0
	54. Glola	Glola	10	8
	55. Kvakhieti	Kvakhieti	3	3
	56. Utsera	Utsera	1	2
	57. Jvari	Jvari	12	12
Total Oni			91	
9. Tsageri	58. Tvishi	Tvishi	2	2
	59. Tvishi	Orkhevi	3	2
	60. Lasuriashi	Makhashi	2	0
	61. Lasuriashi	Dekhisi	1	0
	62. Chqema	Qulbaqi	1	0
Total Tsageri			13	
10. Lentekhi	63. Rtskmeuli	Rtskmeuli	3	0
	64. Rtskmeuli	Babili	1	0
	65. Choluri	Fanaga	2	0
	66. Rtskmeuli	Khofuri	2	0
Total Lentekhi			8	
Total Number of Villages =65				
Total Number of Sakrebulo = 65				
Total Number of Municipalities = 10				

11.4 Annex 4: Endline Surveys

11.4.1 LED Survey

FIRST, MAKE SURE YOU HAVE THE RIGHT RESPONDENT. THE ENUMERATOR MUST INTERVIEW THE HEAD OF HOUSEHOLD OR SPOUSE.

Introduction: “My name is..... We’re interviewing people here in [name of village] in order to get information about their village. The information obtained will be used to assess rural Georgians’ attitudes toward local government. **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	2

Household Code |__|__|__|__|__|

Respondent Code |__|__|__|__|__|

Treatment or Control Village |__|__|_

Treatment	1
Control	2

IMPORTANT DETAILS

<i>Interviewer's name</i>	
<i>Interviewer's ID number</i>	
<i>Respondent's name</i>	
<i>Contact address</i>	
<i>Respondent's telephone number</i>	
<i>Interview date</i>	

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	H7. Brings Income	H8. Source of Income	H9. Most Important Sources of Household Income
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
		Completed years	1- Yes 2- No	1-Self employed in farming--livestock and agriculture 2-Self employed in own business or professional activity unrelated to farming 3-Intermittently employed or works from time to time 4-Permanently employed—state or public sector 5-Permanently employed-private sector 6-Unemployed—seeking employment in the last month 7-Unemployed—not seeking employment in past month 8—Pensioner 9—Student 10-Unfit or of limited fitness for work 11-Other Note: If household member has more than one source of income, list the most important source for that person.	1-Most important 2-Second most important 3-Third most important

2. Household Economic Conditions

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

	SINGLE ANSWER
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?

	SINGLE ANSWER
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
	Yes	No	
1. Color TV set	1	2	
2. Refrigerator	1	2	
3. Automatic washing machine	1	2	
4. Car	1	2	
5. DVD player	1	2	
6. Personal computer, including laptop	1	2	
7. Air conditioner	1	2	
8. Vacuum cleaner	1	2	
9. Satellite dish	1	2	
10. Independent heating system	1	2	

E4. 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

E5. According to your assessment, how has the financial condition of your household changed in the last 12 months?

	SINGLE ANSWER
Significantly worsened	1
Slightly worsened	2
Remained the same	3
Slightly improved	4
Significantly improved	5

E6. According to your assessment, how will the financial condition of your household change over the next 12 months?

	SINGLE ANSWER
Will significantly worsen	1
Will slightly worsen	2
Will remain the same	3
Will slightly improve	4
Will significantly improve	5

E7. 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
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

E8. Has your household applied for governmental social assistance in the last 12 months?

Yes	1	SKIP QUESTION E9
No	2	CONTINUE

E9. If you haven't applied, what was the reason for not applying for governmental social assistance?

	SINGLE ANSWER
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)	

E10. 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

E11. 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

E12. In your opinion, how important is social assistance by the government for you?

	SINGLE ANSWER
Very important	4
Important	3
Unimportant	2
Very unimportant	1

E13. Was your HH or any HH member used the government-run healthcare insurance program in the last 12 months?

Yes	1	CONTINUE
No	2	SKIP QUESTION E14

E14. In your opinion how important is it for you to participate in the government-run healthcare insurance program?

	SINGLE ANSWER
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.

E15. 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)
1. Food (meat, vegetables, fruits, dairy, grains, starches, etc.)				
2. Non-alcoholic beverages (mineral water, juice, soda, tea, coffee, etc.)				
3. Alcoholic beverages and tobacco				
4. Salt, sugar, honey, sauces, condiments				

E16. 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		

E17. 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)		

E18. What is your housing status?

	SINGLE ANSWER
Own	1
Rent	2
Mortgaged	3
Provided for free occupancy	4

E19. What is the total area of your apartment/house in square meters?

E20. How many rooms are in your residence *(excluding cousin, corridor, bathroom, toilet, loggia, and other storages)*

E20.1. In total _____

E20.2. Bedrooms _____

E21. 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. Heating - individual	1	2
7. Telephone	1	2
8. Internet	1	2
9. Wireless Phone	1	2

E22. How many land plots do/did you use for cultivation (including leased land)? _____

	#1	#2	#3	#4	#5	#6	#7	#8
E23. How many hectares in size is each plot of land?								

	#1	#2	#3	#4	#5	#6	#7	#8
E24. What is the primary crop on this plot of land?								

DEFINITION OF PRIMARY CROP - Hectares--the number of hectares devoted to the crop

Codes of crops

1	Wheat
2	maize
3	Cucumber
4	Tomato
5	Beetroot
6	Carrot
7	Potato
8	Cabbage
9	Eggplant
10	Onion
11	Garlic
12	Pkhaleuli, haricot, bean,
13	Watermelon, melon, pumpkin
14	Herbs, radish, pepper
15	Livestock food crops (soy, barley, oat)
16	Livestock rough food (hay, straw, stubble)
17	Beans
18	Pitted fruit (cherry, plum, peach, wild plum....)
19	Apple
20	Pear
21	Other fruits that produce seeds (quince, medlar ...)
22	Citrus (lemon, tangerine, orange)
23	Subtropical fruits (persimmon, pomegranate, fig ...)
24	Grapes
25	Berries (strawberry, raspberry, currant, blackberry, goosebe)
26	Walnut, nut, almond
27	Tea (raw)
28	Sunflower
29	Tobacco (dried)
30	Flowers (piece)
31	Forest fruits (chestnut) mushroom
32	Young plants of grapevine, citrus and fruits (piece)
33	Vegetable seedlings (piece)
34	Laurel

E25. Do you own the following livestock?

Durable Good	a) Own		b) 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	

3. Perceptions of Local Government

In the rest of the survey, we will ask you about your attitudes about local government. Local government includes the following persons and positions: local Sakrebulo council member, Sakrebulo Chairman, Trustee (Rtsmunebuli), and Gamgebeli.

P1. Who do you think is *primarily* responsible for the following village concerns?

	Write code
1. Providing residents access to clean drinking water	
2. Collecting and disposing of solid waste (garbage)	
3. Maintaining local roads (for example, roads to farm plots)	
4. Providing preschool (kindergarten)	
5. Creating and maintaining green areas (parks, playgrounds, public areas)	
6. Illumination of streets/ roads	
7. Offering cultural activities	
8. Maintaining cemeteries	
9. Promoting economic growth (farming, business opportunities, jobs, etc.)	

1. Village residents
2. Local Sakrebulo council member
3. Sakrebulo Chairman
4. Trustee (Rtsmunebuli)
5. Gamgebeli
6. Regional Governor
7. Central Government
8. Donor organizations, NGOs
9. Utility companies

P2. How much impact do you think your local government has on your daily life?

	SINGLE ANSWER
A lot	4
Some	3
Very little	2
None	1

P3. How much interest do you have in what is going on with your local government?

	SINGLE ANSWER
A lot	4
Some	3
Very little	2
None	1

P4. These are some things that other people have said about their local government. To what extent do you agree or disagree with them? ONE ANSWER ON EACH ROW

MY LOCAL GOVERNMENT...	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	N/A, Don't Know, No Answer
1. Is making my village a better place to live	5	4	3	2	1	
2. Is efficient and well run	5	4	3	2	1	
3. Spends its money wisely	5	4	3	2	1	
4. Is good at solving problems that affect my village	5	4	3	2	1	
5. Is honest and trustworthy	5	4	3	2	1	
6. Provides opportunities for residents to participate in decision making	5	4	3	2	1	
7. Communicates to residents what it is doing	5	4	3	2	1	
8. Listens to the concerns of residents	5	4	3	2	1	
9. Acts on the concerns of local residents	5	4	3	2	1	
10. Treats all types of people fairly and does not favor certain people or one group over another	5	4	3	2	1	
11. Places the needs of the local community over their personal interests	5	4	3	2	1	
12. Places the needs of the local community over the interests of their political party	5	4	3	2	1	

P5. To what extent are you satisfied with the following local services in your village? ONE ANSWER ON EACH ROW

	Very Satisfied	Satisfied	Neither Satisfied nor Unsatisfied	Unsatisfied	Very Dissatisfied	N/A, Don't Know, Refuse to Answer
1. Providing residents access to clean drinking water	5	4	3	2	1	
2. Providing residents access to irrigated water for farming	5	4	3	2	1	
3. Collecting and disposing of solid waste (garbage)	5	4	3	2	1	
4. Maintaining local roads (for example, roads to farm plots)	5	4	3	2	1	
5. Providing preschool (kindergarten)	5	4	3	2	1	
6. Creating and maintaining green areas (parks, playgrounds, public areas)	5	4	3	2	1	
7. Illumination of streets/ roads	5	4	3	2	1	
8. Offering cultural activities	5	4	3	2	1	
9. Maintaining cemeteries	5	4	3	2	1	

P6. How much do you feel the local government is currently involved in each of the following? ONE ANSWER ON EACH ROW

	Very Involved	Somewhat Involved	Not Very Involved	Not Involved At All	N/A, Don't Know, Refuse to Answer
1. Providing residents access to clean drinking water	4	3	2	1	
2. Collecting and disposing of solid waste (garbage)	4	3	2	1	
3. Maintaining local roads (for example, roads to farm plots)	4	3	2	1	
4. Providing preschool (kindergarten)	4	3	2	1	
5. Creating and maintaining green areas (parks, playgrounds, public areas)	4	3	2	1	
6. Illumination of streets/ roads	4	3	2	1	
7. Offering cultural activities	4	3	2	1	
8. Maintaining cemeteries	4	3	2	1	

P7. If you have problems with any of the previous local services, to whom would you turn first? To whom would you turn to second? Don't read list

	a) First	b) Second
Local Sakrebulo council member	1	1

Trustee (Rtsmunebuli)	2	2
Gamgebeli	3	3
Sakrebulo Council Chairman	4	4
Regional Governor	5	5
Relatives/neighbors	6	6
Media	7	7
Someone else	8	8
I would fix it myself	9	
I would not do anything about it	10	

P8. Do women have more, less, or equal access and influence as men to decisions taken by local authorities?

	SINGLE ANSWER
More	1
Less	2
Equal	3
Don't know	99

P9. With which statement among those listed below do you most agree?

	SINGLE ANSWER
Local government has a lot of authority and it is necessary to reduce it	1
Local government has a lot of authority and it is desirable to reduce is	2
Local government has sufficient authority and there is no need to change it	3
Local government has little authority and it is desirable to increase it	4
Local government has insignificant authority and it is necessary to increase it	5
Don't know	99

P10. With which statement among those listed below do you most agree?

	SINGLE ANSWER
Local government works very effectively	4
Local government works somewhat effectively	3
Local government works very ineffectively	2
Local government doesn't work at all	1

P11. Taking everything into account, how satisfied are you with the following:

	Very Satisfied	Satisfied	Neither Satisfied nor Dissatisfied	Dissatisfied	Very Dissatisfied	Don't know, N/A
Local Sacrebulo council member	5	4	3	2	1	
Sacrebulo Chairman	5	4	3	2	1	
Trustee (Rtsmunebuli)	5	4	3	2	1	
Gamgebeli	5	4	3	2	1	
Local government in general	5	4	3	2	1	

4. Civic Engagement

C1. How interested would you say you are in the affairs of your village?

	SINGLE ANSWER
Very interested	4
Somewhat interested	3
Not very interested	2
Not at all interested	1

C2. How would you describe your level of involvement in the affairs of your village?

	SINGLE ANSWER
Very involved	4
Somewhat involved	3
Not very involved	2
Not at all involved	1

C3. Do you know . . . ? ONE ANSWER ON EACH ROW

	Know Well	Know Somewhat	Don't Know Well	Don't Know at All
1. How you can get involved in local decision making and solving village problems	4	3	2	1
2. How to contact a local government official	4	3	2	1
3. What services the local government is providing	4	3	2	1
4. What quality of service you should expect from the local government	4	3	2	1
5. Where to get information on what the local government is doing	4	3	2	1
6. Whether the local government is delivering on its promises	4	3	2	1

C4. Please indicate your level of agreement with each of the following statements. ONE ANSWER ON EACH ROW

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1. I am aware of opportunities to participate in solving village problems	5	4	3	2	1
2. I am satisfied with opportunities to participate in solving village problems	5	4	3	2	1
3. I can make a difference in my community by working with other people to solve village problems,	5	4	3	2	1
4. In the future, I will become more involved in working with other people to solve village problems	5	4	3	2	1

C5. Please tell us who are responsible for solving community problems? Please choose one statement from listed below

	One answer
Community members as a whole are responsible for solving community problems	1
Community members who can afford to pay or who benefit the most are responsible for solving community problems	2
Community members and the local government are jointly responsible for solving community problems	3
The local government is responsible for solving community problems	4
The central government is responsible for solving community problems	5
Donor organizations are responsible for solving community problems	6

C6. Here is a list of actions that people sometimes take as citizens. For each of these, please tell me how often you or someone else in your household has done any of these things during the past 12 months.

ONE ANSWER ON EACH ROW

	Several Times	A Few Times	Once	Never
1. Attended a public meeting with a local government official (excluding election campaigns/ activities/ events)	4	3	2	1
2. Attended a public meeting of village members	4	3	2	1
3. Got together with others to raise an issue or address a problem	4	3	2	1
4. Performed volunteer work	4	3	2	1
5. Attended a demonstration or protest	4	3	2	1
6. Contacted the media to raise awareness about a problem (call newspaper, a radio show, TV show, etc.)	4	3	2	1
7. Wrote a letter to a local government official	4	3	2	1
8. Contacted a local government official in person	4	3	2	1

C7. If you or another household member contacted a local government representative in person in the past 12 months, please tell us which ones you contacted and the reason for contacting them?

	a) Contact		b) Reason			
	Yes	No	Improve Local Services	Get Information	Ask for Support	Others
1. Local Sakrebulo council member	1	2	1	2	3	
2. Trustee (Rtsmunebuli)	1	2	1	2	3	
3. Gamgebeli	1	2	1	2	3	
4. Sakrebulo Council Chairman	1	2	1	2	3	
Other (specify)	1	2	1	2	3	

IF IN C7a) CONTACT IS "NO" IN ALL CASES ABOVE, PLEASE SKIP QUESTIONS C8 AND C9

C8. What is your level of satisfaction with the contacts you or other household members have had with local government representatives in the past 12 months? ONE ANSWER ON EACH ROW

	Very Satisfied	Satisfied	Neither Satisfied Nor Unsatisfied	Unsatisfied	Very Unsatisfied
1. Local Sakrebulo council member	5	4	3	2	1
2. Trustee (Rtsmunebuli)	5	4	3	2	1
3. Gamagebeli	5	4	3	2	1
4. Sakrebulo Council Chairman	5	4	3	2	1
Other (specify)					

C9. As a result of this experience with the local government representatives, are you more likely, less likely, or equally likely to contact a local government representative in the future?

	SINGLE ANSWER
More likely	3
Equally likely	2
Less likely	1

5. Infrastructure and Involvement

I1. Was any infrastructure rehabilitation project implemented in your community in the 3 years (since 2013)? For example, construction or rehabilitation of: schools, roads, water pipes, gas pipe network, electricity supply system, local roads, irrigation system, river- banks, or tourism infrastructure.

	SINGLE ANSWER	
Yes	1	CONTINUE
No	2	SKIP QUESTIONS I2, I3 AND I4
Don't know	3	

I2. Please tell us about these projects

	a) Project (use codes)	b) Who implemented the project?	c) Were any public discussions held about the project?		d) Did you or another household member attend the public discussions?			e) Is the project completed?		
			Yes	No	Yes	No	Don't Know	Yes	No	Don't Know
Project 1			1	2	1	2	99	1	2	99
Project 2			1	2	1	2	99	1	2	99
Project 3			1	2	1	2	99	1	2	99

a) Construction or rehabilitation of . . .	codes
Schools	1
Roads	2
Water pipes	3
Gas pipe network	4
Electricity supply system	5
Local roads	6
Irrigation system	7
River- banks	8
Tourism infrastructure	9
Other (specify)	

b) Who implemented the project?	codes
Local government	1
Central government	2
Local inhabitants	3
Donor organization /NGO	4
Other (describe)	
Don't know	99

13. Was/ is the infrastructure project beneficial to your community?

	Project 1	Project 2	Project 3	
Yes, it is still beneficial	1	1	1	Skip question I4
It was beneficial but is not beneficial any more	2	2	2	Continue
No, has never been beneficial	3	3	3	
Don't Know	99	99	99	Skip question I4

14. Why do you think the infrastructure project was/ is not beneficial to your community? (SINGLE ANSWER ON EACH ROW)

	Project 1	Project 2	Project 3
Lack of funding for maintenance of project	1	1	1
No longer needed	2	2	2
Lack of knowledge of post-project management skills	3	3	3
External factors (such as government shut the project down)	4	4	4
Lack of interest on part of community	5	5	5
Other (SPECIFY) _____			

15. Generally, who decides whether there is a need for an infrastructure rehabilitation project in your community?

	ALL THAT APPLY
Local government	1
Central government	2
Local inhabitants	3
Donor organization	4
Other (describe)	
Don't know	99

16. Generally, who decides which specific infrastructure projects should be implemented in your community?

	ALL THAT APPLY
Local government	1
Central government	2
Local inhabitants	3
Donor organization	4
Other (describe)	
Don't know	99

17. Do you think that public discussions related to infrastructure project implementations should be held?

	SINGLE ANSWER
Yes, it is necessary	1
Yes, it is preferable to be held	2
No, I don't consider it to be necessary	3

18. If such discussions were held in the future, how likely would it be that your household participates?

	SINGLE ANSWER
Yes, would definitely participate	1
Perhaps would participate	2
Would not participate	3
Don't know	99

19. Does your community have an Economic Development Plan?

	SINGLE ANSWER	
Yes	1	CONTINUE
No	2	SKIP QUESTIONS I10-I12
Don't know	3	

I10. Were any public discussions held concerning the creation of the Economic Development Plan in your community?

	SINGLE ANSWER	
Yes	1	CONTINUE
No	2	SKIP QUESTION I11
Don't know	3	

I11. If it was held, did at least one of your household members participate in this discussion?

	SINGLE ANSWER
Yes	1
No	2
Don't know	3

I12. How well do you know what is in your community's Economic Development Plan?

	SINGLE ANSWER
Very well	1
Somewhat	2
Not at all	3

I13. Are you aware of any infrastructure development projects or other community-wide economic development activities in neighboring communities?

	SINGLE ANSWER	
Yes	1	CONTINUE
No	2	END SURVEY
Don't know	3	

I14. Can you name this community?

10.	11. a) Where the project was implemented (Village)	12. b) Municipality (write code)	13. c) Sakrebulo (write code)	14. d) Village (write code)
15. Project 1	16.	17.	18.	19.
20. Project 2	21.	22.	23.	24.

I15. Can you tell me who implemented this project?

	Project 1	Project 2
	ALL THAT APPLY	ALL THAT APPLY
Local government	1	1
Central government	2	2
Local inhabitants	3	3
Donor organization/NGO	4	4
Other (describe)		
Don't know	99	99

I16. What is your impression of this infrastructure development project or community-wide economic development activity?

	Very Favorable	Favorable	No Opinion	Unfavorable	Very Unfavorable	Don't know, N/A
Project 1	5	4	3	2	1	
Project 2	5	4	3	2	1	

I17. How has this infrastructure development project or community-wide economic development activity affected your views of the following?

	Unfavorable Change	No Change	Favorable Change	Don't know, N/A
1. Local government	3	2	1	
2. Contacting a local government official to solve a personal or village problem				
3. Citizen participation with local government to solve a village problem	3	2	1	
4. Participation with other citizens to solve a village problem	3	2	1	

11.8. How has this infrastructure development project or community-wide economic development activity affected the likelihood that you . . . ?

	Less Likely	No Change	More Likely	Don't know, N/A
Contact a local government official to solve a personal or village problem	3	2	1	
Work with other citizens to solve a village problem	3	2	1	
Work on your own to solve a village problem	3	2	1	

11.4.2 Rural Production Survey

FIRST, MAKE SURE YOU HAVE THE RIGHT RESPONDENT. THIS WILL BE THE PERSON WHO PARTICIPATED IN FIRST WAVE OF SURVEY (2013).

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 |__|__|__|__|__|

Municipality

Gori	1
Kareli	2
Khashuri	3
Dusheti	4
Kazbegi	5
Zugdidi	6
Tsalenjikha	7
Oni	8
Tsageri	9

Lentekhi	10
Tianeti	11

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 respondent (by baseline) |__|__|_

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 activities covered by the survey MULTIPLE RESPONSES:

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

Have you received any type of service from any organization since 2013 up today?

Yes, from Government	1
Yes, from NEO	2
Yes, from other donor / international organization (please, specify)	3
No	4

If yes, what kind of service was this?

Productive grant (agricultural or non agricultural)	1
Agriculture training	2
Livelihood package	3
Other (please, specify)	

IMPORTANT DETAILS

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

INTERVIEW START TIME: _____

INTERVIEW END TIME: _____

SUPERVISOR SIGNATURE: _____

PLEASE, USE FOLLOWING CODES

DON'T KNOW – 99

NOT APPLICABLE – 88

REFUSED TO ANSWER – 77

Household Demographics

Info about Household members

No.	H1. Name	H2. Age	H7. Brings Income	H8. Source of Income	H9. Most Important Sources of Household
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
		Completed years	1-Yes 2-No	1-Self employed in farming--livestock and agriculture 2-Self employed in own business or professional activity unrelated to farming 3-Intermittently employed or works from time to time 4-Permanently employed—state or public sector 5-Permanently employed-private sector 6-Unemployed—seeking employment in the last month 7-Unemployed—not seeking employment in past month 8—Pensioner 9—Student 10-Unfit or of limited fitness for work 11-Other Note: If household member has more than one source of income, list the most important source for that person.	1-Most important 2-Second most important 3-Third most important

Household Economic Conditions

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

	SINGLE ANSWER
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?

	SINGLE ANSWER
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
	Yes	No	
Color TV set	1	2	
Refrigerator	1	2	
Automatic washing machine	1	2	
Car	1	2	
DVD player	1	2	
Personal computer, including laptop	1	2	
Air conditioner	1	2	
Vacuum cleaner	1	2	
Satellite dish	1	2	
Independent heating system	1	2	

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

Durable Good	Own		Number
	Yes	No	
Tractor	1	2	
Animal drawn plough	1	2	
Mechanical plough	1	2	

Wheelbarrows	1	2	
Trailer	1	2	
Motorized thresher	1	2	
Hand thresher	1	2	
Mechanical water pump	1	2	
Hand water pump	1	2	
Mill	1	2	
Motorized insecticide pump	1	2	
Greenhouse	1	2	

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?

	SINGLE ANSWER
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?

	SINGLE ANSWER
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?

No	0	Skip to E11
Yes	1	Continue

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 to E13
Yes	1	Continue

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 to E15
Yes	1	Continue

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 QUESTION E9
No	2	CONTINUE

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

	SINGLE ANSWER
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?

	SINGLE ANSWER
Very important	4
Important	3
Unimportant	2
Very unimportant	1

E20. Was your HH or any HH member used 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?

	SINGLE ANSWER
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?

	SINGLE ANSWER
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)

E27.1. In total	_____
E27.2. 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	
1. Cows	1	2	
2. Bulls	1	2	
3. Calves	1	2	
4. Sheep	1	2	
5. Goats	1	2	
6. Pigs	1	2	
7. Poultry	1	2	
8. Donkeys	1	2	
9. Horses	1	2	
10. Rabbits	1	2	

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)

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

VG1. Have you harvested any [...] during the past cropping season? ASK ABOUT PRODUCTION ACTIVITIES COVERED BY THE SURVEY (SEE ABOVE) YES=1 NO=2	VG2. Is [...] an open field or a greenhouse/ family plot crop? OPEN FIELD=1 GREENHOUSE/ FAMILY PLOT=2	VG3. How many years have you grown [...]? IF LESS THAN 1 YEAR WRITE IN 0	VG4. What is the total land area used to cultivate [...]? OPEN FIELD= HECTARES GREENHOUSE/ FAMILY PLOT= SQUARE METERS	VG5. How many months is the cropping season for [...]?	VG6. How many harvests of [...] do you produce over a 12-month period?	VG7. When you harvest [...], what is the unit you use to measure production? KILOGRAMS=1 GRAMS=2 NUMBER=3 BASKETS=4 BUSHELS=5 TONS=6 OTHER=7	VG8. How much of [...] did you harvest during past cropping season?
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							

VG9. How much of the [...] you harvested during the past	VG10. What TOTAL amount did you get for	VG11. Where did you sell most of [...]?		VG12. To whom did you sell most of your [...]?	VG13. How much of the [...] you harvested during the past	VG14. How much of the [...] you harvested during the past
		OWN FARM	MARKET IN COMMUNITY			
		1	2	1	2	

	cropping season was sold? USE APPROPRIATE UNIT OF MEASURE	the [...] that you sold? GEL	MARKET OUTSIDE COMMUNITY 3				WHOLESALER		cropping season did your household consume?	cropping season did you use for animals?
			SMALL SHOP 4	SUPERMARKET 5	AGRO-INDUSTRY 6	OTHER (Specify _____) 7	RETAILER 4	OTHER (Specify _____) 5		
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										

	VG15. How much of the [...] you harvested during the past cropping season did you use for seed? USE APPROPRIATE UNIT OF MEASURE	VG16. How much of the [...] you harvested during the past cropping season did you give away as a gift? USE APPROPRIATE UNIT OF MEASURE	VG17. How much of the [...] you harvested during the past cropping season did you lose due to spoilage, animals, weather, and other causes? 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 VEGETABLES 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	
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?

a) Male	
b) Female	

VG20. LIST UP TO 10 EMPLOYEES

VG21. How many days in total did each employee work during the past cropping season?

VG22. How many hours did each employee work on a typical day? (LIST UP TO 10 EMPLOYEES)

VG20 LIST UP TO 10 EMPLOYEES		VG21 How many days in total did each employee work		VG22. How many hours did each employee work	
VG20.1.	_____	VG21.1.	_____	VG22.1.	_____
VG20.2.	_____	VG21.2.	_____	VG22.2.	_____
VG20.3.	_____	VG21.3.	_____	VG22.3.	_____
VG20.4.	_____	VG21.4.	_____	VG22.4.	_____
VG20.5.	_____	VG21.5.	_____	VG22.5.	_____
VG20.6.	_____	VG21.6.	_____	VG22.6.	_____
VG20.7.	_____	VG21.7.	_____	VG22.7.	_____
VG20.8.	_____	VG21.8.	_____	VG22.8.	_____
VG20.9.	_____	VG21.9.	_____	VG22.9.	_____
VG20.10.	_____	VG21.10.	_____	VG22.10.	_____

CANE FRUIT PRODUCTION

CF1. Have you harvested any [...] during the past cropping season? ASK ABOUT PRODUCTION ACTIVITIES COVERED BY THE SURVEY (SEE ABOVE) YES=1 NO=2	CF2. Is [...] an open field or a greenhouse/family plot crop? OPEN FIELD=1 GREENHOUSE/ FAMILY PLOT=2	CF3. How many years have you grown [...]? IF LESS THAN 1 YEAR WRITE IN 0	CF4. What is the total land area used to cultivate [...]? OPEN FIELD= HECTARES GREENHOUSE/ FAMILY PLOT= 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? KILOGRAMS=1 GRAMS=2 NUMBER=3 BASKETS=4 BUSHELS=5 TONS=6 OTHER=7	CF8. How much of [...] did you harvest during past cropping season?
1. Strawberry							
2. Raspberry							
3. Blackberry							
4. Current							
5. Gooseberry							
6. Wine Grape							

CF9. How much of the [...] you harvested during the past cropping season was sold? USE APPROPRIATE UNIT OF MEASURE	CF10. What TOTAL amount did you get for the [...] that you sold? 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 consume?	CF14. How much of the [...] you harvested during the past cropping season did you use for animals?			
		OWN FARM	1	MARKET IN COMMUNITY	2	MARKET OUTSIDE COMMUNITY	3	SMALL SHOP				4	SUPERMARKET	5
1														

2					
3					
4					
5					
6					

	CF15. How much of the [...] you harvested during the past cropping season did you use for seed?	CF16. How much of the [...] you harvested during the past cropping season did you give away as a gift?	CF17. How much of the [...] you harvested during the past cropping season did you lose due to spoilage, animals, weather, and other causes?
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	
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. LIST UP TO 10 EMPLOYEES

CF21. How many days in total did each employee work during the past cropping season?

CF22. How many hours did each employee work on a typical day? (LIST UP TO 10 EMPLOYEES)

CF20 LIST UP TO 10 EMPLOYEES		CF21 How many days in total did each employee work		CF22 How many hours did each employee work	
CF20.1.	_____	CF21.1.	_____	CF22.1.	_____
CF20.2.	_____	CF21.2.	_____	CF22.2.	_____
CF20.3.	_____	CF21.3.	_____	CF22.3.	_____
CF20.4.	_____	CF21.4.	_____	CF22.4.	_____
CF20.5.	_____	CF21.5.	_____	CF22.5.	_____
CF20.6.	_____	CF21.6.	_____	CF22.6.	_____
CF20.7.	_____	CF21.7.	_____	CF22.7.	_____
CF20.8.	_____	CF21.8.	_____	CF22.8.	_____
CF20.9.	_____	CF21.9.	_____	CF22.9.	_____
CF20.10.	_____	CF21.10.	_____	CF22.10.	_____

STONE FRUIT AND HAZEL NUT PRODUCTION

N1. Have you harvested any [...] during the past cropping season? ASK ABOUT PRODUCTION ACTIVITIES COVERED BY THE SURVEY (SEE ABOVE) YES=1 NO=2	N2. How many years have you grown [...]? IF LESS THAN 1 YEAR WRITE IN 0	N3. What is the total land area used to cultivate [...]?	N4. How many months is the cropping season for [...]?	N5. How many [...] trees do you current have?	N6. How many [...] trees produced fruit during the past cropping season?	N7. When you harvest [...], what is the unit you use to measure production? KILOGRAMS=1 GRAMS=2 NUMBER=3 BASKETS=4 BUSHELS=5 TONS=6 OTHER=7
1. Apple						
2. Pear						
3. Plum						
4. Cherry						
5. Hazelnut						

	N8. How much of [...] did you harvest during past cropping season?	N9. How much of the [...] you harvested during the past cropping season was sold?	N10. What TOTAL amount did you get for the [...] that you sold? GEL	N11. Where did you sell most of [...]?							N12. To whom did you sell most of your [...]?				N13. How much of the [...] you harvested during the past cropping season did your household consume?											
				OWN FARM	1	MARKET IN COMMUNITY	2	MARKET OUTSIDE COMMUNITY	3	SMALL SHOP	4	SUPERMARKET	5	AGRO-INDUSTRY		6	OTHER (Specify _____)	7	CONSUMER	1	MIDDLEMAN	2	WHOLESALE	3	RETAILER	4
1																										
2																										
3																										
4																										
5																										

	N14.How much of the [...] you harvested during the past cropping season did you use for animals?	N15.How much of the [...] you harvested during the past cropping season did you give away as a gift?	N16.How much of the [...] you harvested during the past cropping season did you lose due to spoilage, animals, weather, and other causes?
1			
2			
3			
4			
5			

N17. How much do you estimate that you spent in total to produce [NAME ALL OF THE CROPS BEING PRODUCED FROM ABOVE]? (REMINDE 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	
Other (specify)	
Other (specify)	

N18. 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	

N19. LIST UP TO 10 EMPLOYEES

N20. How many days in total did each employee work during the past cropping season?

N21. How many hours did each employee work on a typical day? (LIST UP TO 10 EMPLOYEES)

N22. EMPLOYEES	N19 LIST UP TO 10 EMPLOYEES	N21 How many days in total did each employee work	N22. How many hours did each employee work
N19.1.	_____	N20.1. _____	N21.1. _____
N19.2.	_____	N20.2. _____	N21.2. _____
N19.3.	_____	N20.3. _____	N21.3. _____

N19.4.				N20.4.				N21.4.			
N19.5.				N20.5.				N21.5.			
N19.6.				N20.6.				N21.6.			
N19.7.				N20.7.				N21.7.			
N19.8.				N20.8.				N21.8.			
N19.9.				N20.9.				N21.9.			
N19.10.				N20.10.				N21.10.			

BEEKEEPING

B1. Have you harvested any [...] during the past production season? ASK THIS QUESTION FOR ALL PRODUCTS BEFORE GOING ON TO THE NEXT QUESTION YES=1 NO=2	B2. How many years have you produced [...]? IF LESS THAN 1 YEAR WRITE IN 0	B3. How many honeybee colonies do you currently have?	B4. How many honeybee hives do you currently have?	B5. What is the total land area used to produce honey? HECTARES	B6. How many months is the production season for [...]?	B7. How many harvests of [...] do you produce during a 12-month period?	B8. When you harvest [...], what is the unit you use to measure production? KILOGRAM=1 NUMBER=2 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/wax products							

	B9. How much of [...] did you harvest during past production season?	B10. How much of the [...] you harvested during the past production season was sold?	B11. What TOTAL amount did you get for the [...] that you sold? GEL	B12. Where do you sell most of the [...]?						B13. To whom do you sell most of your [...]?		B14. How much of the [...] you harvested during the past production season did your household consume?														
				OWN FARM	1	MARKET IN COMMUNITY	2	MARKET OUTSIDE COMMUNITY	3	SMALL SHOP	4		SUPERMARKET	5	OTHER (Specify _____)	6	CONSUMER	1	MIDDLEMAN	2	WHOLESALE	3	RETAILER	4	OTHER (Specify _____)	5
1																										
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										

	B15. How much of the [...] you harvested during the past production season did you use for animals? USE APPROPRIATE UNIT OF MEASURE	B16. How much of the [...] you harvested during the past cropping season did you give away as a gift? USE APPROPRIATE UNIT OF MEASURE	B17. How much of the [...] you harvested during the past cropping season did you lose due to spoilage, animals, weather, and other causes? 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	
Hives and small tools	
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. LIST UP TO 10 EMPLOYEES

B21. How many days in total did each employee work during the past production season?

B22. How many hours did each employee work on a typical day? (LIST UP TO 10 EMPLOYEES)

B20 LIST UP TO 10 EMPLOYEES		B21 How many days in total did each employee work		B22 How many hours did each employee work	
B20.1.	_____	B21.1.	_____	B22.1.	_____
B20.2.	_____	B21.2.	_____	B22.2.	_____
B20.3.	_____	B21.3.	_____	B22.3.	_____
B20.4.	_____	B21.4.	_____	B22.4.	_____
B20.5.	_____	B21.5.	_____	B22.5.	_____
B20.6.	_____	B21.6.	_____	B22.6.	_____
B20.7.	_____	B21.7.	_____	B22.7.	_____
B20.8.	_____	B21.8.	_____	B22.8.	_____
B20.9.	_____	B21.9.	_____	B22.9.	_____
B20.10.	_____	B21.10.	_____	B22.10.	_____

LIVESTOCK AND SMALL ANIMALS

<p>I1. During the last 12 months, has any member of your family produced [...] for sale? ASK ABOUT PRODUCTION ACTIVITIES COVERED BY THE SURVEY (SEE ABOVE) YES=1 NO=2</p>	<p>I2. How many [...] does your household currently own?</p>	<p>I3. How many [...] (live animals) did you purchase over the last 12 months?</p>	<p>I4. How many live births of [...] were there during the last 12 months?</p>	<p>I5. How many [...] died during the last 12 months?</p>	<p>I6. When you sell [...], what is the unit you use to measure sales amount? KILOGRAM=1 NUMBER=2 OTHER=3</p>	<p>I7. How much of [...] did you sell during past 12 months?</p>	<p>I8. How much TOTAL did your household receive for the sale of all these [...] during the last 12 months? GEL</p>
<p>1. Rabbits</p>							
<p>2. Poultry</p>							

	L9. Where do you sell most of the [...]?	L10. To whom do you sell most of your [...]?	L11. How much of [...] did your household consume during the past production season?	L12. How much of [...] did your household give away as a gift during the past production season?		
	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	

L15. LIST UP TO 10 EMPLOYEES

L16. How many days in total did each employee work during the last 12 months?

L17. How many hours did each employee work on a typical day?

L18. L15 LIST UP TO 10 EMPLOYEES		L16 How many days in total did each employee work		L17 How many hours did each employee work	
I15.1.	_____	I16.1.	_____	I17.1.	_____
I15.2.	_____	I16.2.	_____	I17.2.	_____
I15.3.	_____	I16.3.	_____	I17.3.	_____
I15.4.	_____	I16.4.	_____	I17.4.	_____
I15.5.	_____	I16.5.	_____	I17.5.	_____
I15.6.	_____	I16.6.	_____	I17.6.	_____
I15.7.	_____	I16.7.	_____	I17.7.	_____
I15.8.	_____	I16.8.	_____	I17.8.	_____
I15.9.	_____	I16.9.	_____	I17.9.	_____
I15.10.	_____	I16.10.	_____	I17.10.	_____

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 READ OPTIONS	a) Adopted practice or technology ?	b) Area Covered by Practice or Technology	c) Effectiveness of Practice or Technology SINGLE RESONSE READ OPTIONS	d) Will use practice or technology in next cropping season?	e. If No, Why Not? MULTIPLE RESONSES ALLOWED DO NOT READ OPTIONS
Mechanical and Physical					
TP1.1. New or improved land preparation practices					
TP1.2. New or improved production practices					
TP1.3. New or improved post-harvest handling practices					
TP1.4. New or improved processing practices					
TP1.5. New or improved energy technologies					
Biological					
TP1.6. New or improved livestock breeds					
TP1.7. New or improved livestock health practices					
TP1.8. New or improved plant varieties					
TP1.9. New or improved soil management practices					
Chemical					
TP1.10. Sustainable fertilizer, pesticide, or					

insecticide practices					
TP1.11. Soil amendments					
Other Management and Cultural Practices					
TP1.12. Sustainable water management practices					
TP1.13. Sustainable land management practices					
TP1.14. Sustainable production practices					
TP1.15. Improved marketing practices					
New or improved information technologies					
TP1.16. Increased use of climate information technologies					
TP1.17. Increased use of energy efficiency technologies					
	1=Yes 2=No	HECTARES	1=Very ineffective 2=Ineffective 3=No opinion 4=Effective 5=Very effective	1=Yes 2=No	1=Ineffective 2=Too much work 3=Too expensive 4=Don't have necessary equipment 5=Haven't heard about it 6=Don't know how 7=Others advised me against it 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.

EX2.1. What type of extension assistance did you receive? (LIST UP TO 3 TYPES OF ASSISTANCE)	EX2.2. What was the primary source of the assistance?	EX2.3. How many training sessions in total did you receive during the last 12 months?	EX2.4. How would you rate the usefulness of the assistance you received? READ OPTIONS
1-Crop selection/crop rotation 2-Improved seeds/ improved crop varieties 3-Pest management 4-Soil/land management 5-Input usage (e.g. fertilizer, pesticide, insecticide) 6-Production practices 7-Harvesting practices 8-Post-harvest practices 9-Irrigation/water management 10-Livestock Feeding 11-Veterinarian/livestock advice 12-Marketing practices 13-Other	1-USAID/NEO/AIC/ CIDA/ CHCA 2-NGO/development organization 3-Processors 4-Suppliers (shops selling feed, equipment, fertilizers and etc.) 5-State organizations 6-Farmer associations/cooperatives 7-Other		1-Not useful 2-Useful to some degree 3-Useful 4-Very useful

ENTERPRISE PRODUCTION

<p>EP1. Have you operated any of the following enterprises during the past 12 months? ASK ABOUT PRODUCTION ACTIVITIES COVERED BY THE SURVEY (SEE ABOVE)</p> <p style="text-align: right;">YES=1 NO=2</p>	<p>EP2. How many years have you operated [...]? IF LESS THAN 1 YEAR WRITE IN 0</p>	<p>EP3. Where is this enterprise operated? 1=Home Inside the residence 2=Home Outside the residence 3=Industrial site 4=Traditional market 5=Commercial district shop 6=Roadside 7=Other fixed place 8=Mobile</p>	<p>EP4. What was the main source of money for setting up this enterprise? 1=Didn't need any money 2=Own Savings 3=Friends/family 4=Commercial/Development bank 5=Microfinance institution 6=Local group 7=NGO 8=Grant 9=Other (Specify)</p>	<p>EP5. In the past 12 months, how many months did this enterprise operate?</p>	<p>EP6. What is/was 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.)					

	EP7. What is the average expenditure on raw materials during a typical month of operation?	EP8. What are other operating expenses such as fuel, kerosene, electricity, etc. during a typical month of operation?	EP 9. How many people does this enterprise hire on wage or salary during a typical month of operation?		EP10. How many days do these people work in a typical month on average?		EP 11. How many hours per day do these people work during a typical day on average?	
			MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

BUSINESS DEVELOPMENT SERVICES

BD2. Did you receive any business development services during the last 12 months?

Yes	
No	

Please tell me about the business development services you received.

BD3. What type of assistance was it? (LIST UP TO 3 TYPES OF ASSISTANCE)	BD4. What was the source of the assistance?	BD5. How many training sessions in total did you receive during the last 12 months?	BD6. How would you rate the usefulness of the assistance you received? READ OPTIONS
	1-USAID/NEO/AIC/ CIDA/ CHCA 2-NGO/development organization 3-Processors 4-Suppliers (shops selling feed, equipment, fertilizers and etc.) 5-State organizations 7-Farmer associations/ cooperatives 7-Private consultant 8-Other		1-Not useful 2-Useful to some degree 3-Useful 4-Very useful

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 RESPONSES ALLOWED, DO NOT READ OPTIONS

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)

№	AC4. To whom did you apply?	AC5. Did you get the loan?	AC6. If you did not get the loan, what was the reason for refusal?	AC7. What is the length of the loan? (Months)	AC8. What is the interest rate?	AC9. What is the amount of your loan payment?
1						
2						
3						
	1 = Commercial/development bank 2 = Microfinance institution 3 = Local shop/supplier that allows you to take goods/services on credit 4 = Buyer of products who gives you cash in advance 5 = Family member or friend 6 = Moneylender 7 = Other (specify) _____	1 = Yes 2 = No	1 = Incomplete application 2 = Poor quality of proposal 3 = Insufficient income 4 = Problem with previous loan 5 = Insufficient collateral 6 = Location too remote 7 = No credit history 8 = Unknown 9 = Other (specify) _____			

No	AC10. How often do you make payments on the loan? DO NOT READ OPTIONS	AC11. Were you required to provide collateral for the loan?	AC12. What did you use as collateral? DO NOT READ OPTIONS	AC13. What did you use the loan for?
1				
2				
3				
	1 = Every week 2 = Every month 2 = Every other month 3 = Every 3 months 4 = Every 6 months 5= Every 12 months 6 = Other (specify)	1 = Yes 2 = No	1 = Land 2 = House/Residence 3 = Vehicle/equipment 4 = Gold/jewelry/valuable stones 5 = Other liquid assets 6 = Other (specify)	1 = Purchase machinery & equipment 2 = Purchase production inputs/ working capital 2 = Purchase land 3 = Purchase livestock 4 = Purchase/ invest in new production method or technology 5= Construct or rehabilitate work place 6 = Construct or rehabilitate home 7=Purchase consumer goods 8=Other???

11.4.3 Vocational Education Survey

FIRST, MAKE SURE YOU HAVE THE RIGHT RESPONDENT. THE ENUMERATOR MUST INTERVIEW THE PERSON WHO PARTICIPATED IN THE BASELINE SURVEY

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. **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 |__|__|__|__|__|

Municipality

Gori	1
Kareli	2
Khashuri	3
Dusheti	4
Kazbegi	5
Zugdidi	6
Tsalenjikha	7
Oni	8
Tsageri	9
Lentekhi	10
Tianeti	11

Name of Settlement (INDICATE NAME AND CODE)

Sakrebulo _____ Code

Village _____ Code

Respondent’s status:

Local	1
IDP/ Refugee	2

Respondent Code |__|__|__|__|__|

Respondent’s status (Treatment or Control, by baseline)

Treatment	1
Control	2

Have you participated in any vocational education program?

Yes, in NEO's vocational education program	1
Yes, but not with NEO	2
No	3

Have you had any contact with NEO?

Vocational education only	1
Other NEO activities	2
None	3

IMPORTANT DETAILS

<i>Interviewer's name</i>	
<i>Interviewer's ID number</i>	
<i>Respondent's name</i>	
<i>Contact address</i>	
<i>Respondent's telephone number</i>	
<i>Interview date</i>	

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	H7. Brings Income	H8. Source of Income	H9. Most Important Sources of Household Income
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
		Completed Years	1-Yes 2-No	1-Self employed in farming--livestock and agriculture 2-Self employed in own business or professional activity unrelated to farming 3-Intermittently employed or works from time to time 4-Permanently employed—state or public sector 5-Permanently employed-private sector 6-Unemployed—seeking employment in the last month 7-Unemployed—not seeking employment in past month 8—Pensioner 9—Student 10-Unfit or of limited fitness for work 11-Other Note: If household member has more than one source of income, list the most important source for that person.	1-Most important 2-Second most important 3-Third most important

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	c) Own		d) Number
	Yes	No	
11. Color TV set	1	2	
12. Refrigerator	1	2	
13. Automatic washing machine	1	2	
14. Car	1	2	
15. DVD player	1	2	
16. Personal computer, including laptop	1	2	
17. Air conditioner	1	2	
18. Vacuum cleaner	1	2	
19. Satellite dish	1	2	
20. Independent heating system	1	2	

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

Durable Good	e) Own		f) Number
	Yes	No	
Tractor	1	2	
Animal drawn plough	1	2	
Mechanical plough	1	2	
Wheelbarrows	1	2	
Trailer	1	2	

Motorized thresher	1	2	
Hand thresher	1	2	
Mechanical water pump	1	2	
Hand water pump	1	2	
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
7. Saved money	1	2
8. Just got by	1	2
9. Spent savings to pay household expenses	1	2
10. Borrowed money to pay household expenses	1	2
11. Sold off household assets to pay household expenses (TV set, DVD player, furniture, clothes, jewelry, etc.)	1	2
12. 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 Twice	Several Times	Many Times	Always
10. Bread, khomi, pasta	5	4	3	2	1
11. Butter, milk, cheese	5	4	3	2	1
12. Oil	5	4	3	2	1
13. Meat, chicken, or fish	5	4	3	2	1
14. Fruits, vegetables	5	4	3	2	1
15. Potatoes	5	4	3	2	1
16. Fuel for cooking	5	4	3	2	1
17. Electricity or fuel for heating	5	4	3	2	1
18. 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 used 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)
E22.1. Food (meat, vegetables, fruits, dairy, grains, starches, etc.)				
E22.2. Non-alcoholic beverages (mineral water, juice, soda, tea, coffee, etc.)				
E22.3. Alcoholic beverages and tobacco				
E22.4. 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)
E23.1. Fuel and electricity for the household		
E23.2. Transport and communication (tires, tubes, taxi/bus fares, benzene and diesel fuel)		
E23.3. Communication (mobile phone, mobile phone credit, internet service)		
E23.4. Cleaning and personal hygiene (washing powder, soap, shampoo, detergents, etc.)		
E23.5. Restaurants and hotels		
E23.6. Culture and recreation		
E23.7. Savings		
E23.8. Loans to family, friends, others		
E23.9. 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)
6. Clothing and Footwear		
7. Household goods (furniture, radio, bicycle, phone, refrigerator, washing machine, air conditioner, satellite dish, other appliances)		
8. Education		
9. Health and medical care (e.g., doctors, medicines, hospital/clinic charges)		
10. 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
E28.1. Hot water - central	1	2
E28.2. Hot water - individual system	1	2
E28.3. Electricity	1	2
E28.4. Gas supply - central	1	2
E28.5. Liquid gas supply - gas balloons	1	2
E28.6. Electric Heating - individual	1	2
E28.7. Gas heating - paid	1	2
E28.8. Gas heating – state provided	1	2
E28.9. Wood burning heating	1	2
E28.10. Landline telephone	1	2
E28.11. Internet	1	2
E28.12. Wireless phone	1	2
E28.13. Mobile phone	1	2

E29. Do you own the following livestock?

Livestock	c) Own		d) 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)

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

3. OUTCOME OF VOCATIONAL EDUCATION COURSE

V1. After completing the vocational education course, did you find regular employment?

THIS REFERS TO THE NEO COURSE

Yes	1
No	2

V2. What kind of employment did you find?

	READ OPTIONS
Salary or wage employment	1
Agricultural self-employment	2
Non-agricultural self-employment	3

V3. Would you have been able to find work without attending this course?

Yes	1
No	2

V4. 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

V5. 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

V6. 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

V7. 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

V8. 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

V9. 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

V10. 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

4. INFORMATION ON EMPLOYMENT (PAST 12 MONTHS)

Were you employed during last 12 months?

Yes, I am employed now	1	Continue
Yes, I was employed during several months in last 12 months	2	Continue
No, I was not employed	3	Go to questions 5

IF yes, were /are you

	Yes	No	Go to question
Employed for Salary or wage	1	2	If yes, ask questions IN 1-IN11
Self-employment in agriculture, including crop production, forestry, beekeeping, animal raising and so forth	1	2	If yes, ask questions IN 12 – IN22
Self-employed in trade or other activities aside from agricultural	1	2	If yes, ask questions IN 23-29

SALARY OR WAGE EMPLOYMENT

IN2. What type of work is/was it (write code) | _____ |

Codes for IN1	Codes
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

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. Is the employment agreement with this employer written or verbal?

Written	1
Verbal	2

IN10. 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

IN11. What kind of activity is this?

a. _____	
b. _____	

DESCRIBE THE ACTIVITY (e.g., tomatoes, cane fruits, beekeeping, etc.)

IN12. For how long have you engaged in this activity?

Months	
Years	

IN13. 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	

IN14. How many months is the production season? | _____ |

IN15. How many harvests do you produce during a calendar year? | _____ |

IN16. When you harvest, what is the unit you use to measure production?

	Code (EMP4.2.1)	Kilograms	Grams	Number	Baskets	Bushels	Tons	Other (Specify)
1. product 1. _____		1	2	3	4	5	6	_____
2. product 2. _____		1	2	3	4	5	6	_____
3. product 3. _____		1	2	3	4	5	6	_____
4. product 4. _____		1	2	3	4	5	6	_____
5. product 5. _____		1	2	3	4	5	6	_____

IN17. Have you completed a production season yet?

Yes	1	CONTINUE
NO	2	SKIP QUESTION VOC23

IN18. How much did you harvest during the past production season? | _____ |

IN19. How much of what you harvested during the past production season did you sell?
| _____ |

IN20. What TOTAL amount did you get for the amount you sold? GEL _____

IN21. 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, 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?

	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

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

IN27. How many months during the year does this business operate? _____

IN28. What are the average monthly gross revenues during the months of operation?

IN29. What are the average expenditures on wages during a typical month of operation?

IN30. What are the average expenditures on raw materials during a typical month of operation?

IN31. What are average operating expenses such as fuel, kerosene, electricity, etc. during a typical month of operation? _____

IN32. Is this business registered for VAT?

Yes	1
No	2
Refused	3

IN33. Is this business registered for income tax?

Yes	1
No	2
Refused	3

IN34. 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 2 = Microfinance institution 3 = Local shop/supplier that allows you to take goods/services on credit 4 = Buyer of products who gives you cash in advance 5 = Family member or friend 6 = Moneylender 7 = Other (specify) _____	1 = Yes 2 = No	1 = Incomplete application 2 = Poor quality of proposal 3 = Insufficient income 4 = Problem with previous loan 5 = Insufficient collateral 6 = Location too remote 7 = No credit history 8 = Unknown 9 = Other (specify) _____			

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 2 = Every month 2 = Every other month 3 = Every 3 months 4 = Every 6 months 5= Every 12 months 6 = Other (specify)	1 = Yes 2 = No	1 = Land 2 = House/Residence 3 = Vehicle/equipment 4 = Gold/jewelry/valuable stones 5 = Other liquid assets 6 = Other (specify)	1 = Purchase machinery & equipment 2 = Purchase production inputs/ working capital 2 = Purchase land 3 = Purchase livestock 4 = Purchase/ invest in new production method or technology 5= Construct or rehabilitate work place 6 = Construct or rehabilitate home 7=Purchase consumer goods 8=Other _____

11.5 Annex 5: List of Qualitative Respondents

11.5.1 Endline Respondents by Category

Annex 5: List of Qualitative Respondents, extending from page 197 thru page 200, has been redacted due to personally identifiable information.

11.6 Annex 6: Qualitative Interview Guides

11.6.1 Component 1 Qualitative Interview Guide

LED Focus Group and Key Informant Interview Guides

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 Local Economic Development planning activities (Component 1 of NEO), and do not include individual interview questions related to the economic strengthening activities of the project (Components 2 and 3 of NEO) presented below.

Informant Typology: Community-level Process Participant

Definition of Informant: Person that has been engaged in the NEO process at the community-level, including but not limited to:

- Member of NEO-established Working Group or Focus Group from the community
- Member of local government that has been active in the NEO planning and/or project process
- Local business person that has been active in the NEO planning and/or project process

Framing questions

1. What has been your role in relation to the NEO project, and in the community or local government more generally?

Overall changes / externalities:

1. Have there been any big changes or events in this community since NEO started work in the community? (e.g. big donor projects, drought, natural disaster, big government / private investment, factory closure, etc.)
2. Do you feel that the economic situation in your community has significantly improved or gotten worse since _____,²¹ and why?
3. What has been the overall experience with the NEO project; what activities have been carried-out, and how has it impacted on your activities / work?

In regards to community participation and awareness:

1. What was the experience and process of developing the Community Economic Development Plan?
2. Have you participated in a community planning meeting? How have you learned about a community planning meeting?
3. Where was it held? Who has communicated and organized a community planning meeting?
4. What percentage of community residents have participated in a community planning meeting?
5. How well your community was represented at the community planning meeting (women, lower income residents, different ethnicities, etc.)?
6. Has a certain group dominated a community planning meeting?

²¹ Project start date in this specific community; information about project start date will be obtained from the NEO community mobilization specialist

7. Who has facilitated a community meeting?
8. Have you been adequately explained about the purpose and expectations of the meeting? Can you provide briefly what information you were communicated?
9. How would you compare your expectation with actual outcome?
10. If you have received handouts during the meeting, how useful were they? Why or why not?
11. What were the topics discussed at the community planning meeting?
12. Have you had an equal opportunity to express yourself on top priorities related to economic development?
13. What is your opinion about working group composition – how well a working group composition represents a community? What is the proportion of women and men?
14. What was the procedure governing working group member election? Was it justified/reasonable, fair and democratic?
15. Were there any declared criteria underlying working group member nomination and election? What were they?
16. Have you been elected as a working group member? Why or why not?
17. Around which sectors were working groups established?
18. Can you list the main priorities / directions of the Community Economic Development Plan?
19. How priorities identified by a working group compare with economic priorities identified by you?
20. What was the time period between community planning meeting and the first working group meeting?
21. How many working group meetings were held? What was the objective of the meetings? Do you think planning and meetings were conducted in an efficient way (time-wise, topics covered, etc.)?
22. Have working group members signed the letters of commitment that included clearly defined their roles and responsibilities?
23. How were working group activities organized? Who conveyed working group meetings? Who decided on the agenda and who decided on the need to have a working group meeting? Who has led working group meetings? What was the venue of meetings? Has a working group adopted and followed time delimited activity plan with assigned tasks to implement its responsibilities?
24. What do you think, how well working group identified priorities reflect community needs?
25. How would you describe the process of nomination and selection of focus group members? Was it through voting?
26. Are you a member of a focus group? Why or why not?
27. How many focus groups were created?
28. How well focus group composition represents a community and what is the proportion of men and women?
29. How focus group activities/meetings were organized? Who conveyed focus group meetings? Who decided on the agenda and who decided on the need to have a focus group meeting? Who has led focus group meetings? What was the venue of meetings? Has a focus group followed time delimited activity plan with assigned tasks to implement its responsibilities?
30. How efficient were focus group meetings (time-wise, topics discussed, etc.)?
31. Where there any adopted approaches followed by focus groups to collect relevant data?
32. Were there any procedures or has collected data by working groups been checked for accuracy?

33. Who has consolidated community development plan? Are you happy with that? Why or why not?
34. Where and how community development plan was presented to community members?
35. Have you accepted comments/suggestions and revised community development plan accordingly after meeting with community members? please, provide examples
36. What was the role of local government in elaboration of community development plan?
37. Who has provided a technical input (s) in community development plan?
38. Have you been provided with capacity building technical assistance during the process?
39. In how many training events have you participated and what were the topics?
40. How specific capacity improvement needs were identified? Was it based on gap analysis, etc.?
41. How useful were provided trainings? Why, why not? Do you have a suggestion about alternative approach? Why, why not?
42. Have you presented community development plan to decision makers in your municipality?
43. Who made presentation and what was the process?
44. Who from municipal decision makers participated in discussions?
45. Were decision makers at the municipality happy with presented plan? Why, why not?
46. Have you received comments/suggestions from decision makers at the municipality and have you reflected them in your community development plan?
47. Has your community development plan been incorporated into municipal development plan?
48. Does your community have time-delimited budget plan for implementation of community development plan? What is the period covered? What is the fund distribution (breakdown) by sources?
49. Do you have a formal process/protocol to update a community development plan? Please, describe
50. What percentage of community members would benefit after implementation of working group identified priorities?
51. In general, how would you describe the process/approach to enhance community participation in local economic development? Is it the way it should be done or what alternative approach would you suggest? Why, why not?
52. How dependable and dedicated to solving community problems are the local Trustee (Rtsmunebuli) and Sakrebulo council member?
53. Has community awareness and participation in decision-making increased or decreased since NEO started work in the community?
54. Do you know of any Municipal Development Plan that is in-force, and the priorities that it includes?
55. Are there any concrete examples of your Community Economic Development Plan being integrated into or supported by the Municipal Economic Development Plan?
56. Do you feel that the community has taken an increased or decreased role in municipal affairs?

In regards to infrastructure projects and leverage:

1. What infrastructure or other projects have been implemented in the community since NEO started working in the community, and whom were they funded by (NEO, self-funded, other donors, state budget)?
2. What was the process of identifying and prioritizing projects?

3. Are you aware about procedures/approach/framework governing selection of infrastructure rehabilitation project? Was it participatory?
4. Who has implemented the project? Why? How?
5. How would you describe the quality of carried work? Please, explain
6. Are you aware whether implemented project (s) have a community member support?
7. Are you aware of any arrangements to maintain, repair and ensure proper functioning/operation of rehabilitated infrastructure?
8. What effect did this project(s) have upon the community (community and HH level)?
9. What infrastructure projects have been implemented from other donors / resources? Were they related in any way to the Community Economic Development Plan or NEO project?
10. Have you heard of the Village Support Program? Was this linked in any way to the Community Economic Development Plan or NEO project?

In regards to LED planning process:

1. In your opinion, are Community Economic Development Plans useful for communities, and why?
2. Is the Community Economic Development Plan an active document that the Municipality and others use, or is it something more narrowly associated with the NEO project?
3. Can you think of any examples of municipal government utilizing / incorporating the Community Economic Development Plan? Please elaborate.

Informant Typology: Community level non-process participant

Definition of Informant: *Community members that may or may not have had some exposure to the NEO project, but has not participated directly in any processes such as LED planning or project development. Note that this can include community members that have attended meetings.*

Framing question:

1. Are you aware of the NEO/USAID project, or have you participated in it in any way?

Overall changes / externalities:

1. Have there been any big changes or events in this community since NEO/USAID began working here? (e.g. big donor projects, drought, natural disaster, big government / private investment, factory closure, etc.)
2. Do you feel that the economic situation in your community has significantly improved or gotten worse since _____,²² and why?

In regards to community participation and awareness:

1. Has community awareness and participation in decision-making increased or decreased in the past 18 months?
2. Do you know of any community-level Economic Development Plan that is in-force, and the priorities that it includes?
3. Do you know of any Municipal Economic Development Plan that is in-force, and the priorities that it includes?

²² Project start date in this specific community; information about project start date will be obtained from the NEO community mobilization specialist

4. Have you ever heard of the NEO/USAID project?
5. Do you feel that your community has taken an increased or decreased role in municipal affairs?
6. How dependable and dedicated to solving community problems are the local Trustee (Rtsunabuli) and Sakrebulo council member?
7. Have you participated in a community planning meeting? If not, what was the reason of not participation and what percent of community residents did not participate in a community planning meeting and what was the reason of not participation in their?
8. How have you learned about upcoming community planning meeting? Where was it held? Who has communicated and organized a community planning meeting?
9. What percentage of community residents have participated in a community planning meeting?
10. How well your community was represented at the community planning meeting (women, lower income residents, different ethnicities, etc.)?
11. Has a certain group dominated a community planning meeting?
12. Who has facilitated a community planning meeting?
13. Have you been adequately explained about the purpose and a follow-up of a meeting? Can you provide briefly what information you were communicated?
14. How would you compare your expectation with actual outcome?
15. If you have received handouts during the meeting, how useful were they? Why or why not?
16. What were the topics discussed at the community planning meeting?
17. Have you had an adequate opportunity to express yourself on top priorities related to economic development?
18. What was the outcome of a community planning meeting?
19. What is your opinion about working group composition – how well a working group composition represents a community?
20. What was the procedure governing working group member election? Was it reasonable/justified, fair and democratic?
21. Were there any declared criteria underlying working group member nomination and election? Please, list
22. Are you aware about the content of community development plan and identified priorities? How have you learned?
23. What is your opinion about priorities included in community development plan? Do they reflect your community needs? Do you like them? Why or why not?
24. How do they compare with economic development priorities identified by you?
25. What percentage of community members would benefit after implementation of working group identified priorities?

In regards to infrastructure projects and leverage:

1. Do you know if any infrastructure projects that were done in this community since _____?²³
If so, by who were they completed and what were they?
2. Are you aware about procedures/approach/framework governing selection of infrastructure rehabilitation project? Was it participatory?
3. Who has implemented a project? Why? How?
4. How would you describe the quality of carried works? Please, explain
5. Do you support implemented project (s)?
6. Are you aware of any arrangements to maintain, repair and ensure proper functioning/operation of rehabilitated infrastructure?
7. What effect did this project(s) have upon the community (community and HH level)?
8. What infrastructure projects have been implemented from other donors / resources? Were they related in any way to the Community Economic Development Plan or NEO project?
9. Have you heard of the Village Support Program? Was this linked in any way to the Community Economic Development Plan or NEO project?

In regards to LED planning process:

1. To the best of your knowledge/experience, in general, how would you describe the process? Is it the way it should be done or what alternative approach would you suggest? Why or why not?

Informant Typology: Local, Regional or National Government Representative

Definition of Informant: Government representatives at the municipal, regional or national levels. It is likely that these government officials have not directly participated in NEO, but will have some awareness of the project and may be quite involved in Municipal Economic Development Plans. This may include but not limited to:

- Gamgebelli
- Municipal Council Chairperson or other municipal council member
- Employee of the municipality
- Member of Municipality economic development or other committee
- Regional Governor or other regional government employee / representative
- National government employee, such as MRDI

Framing questions:

1. What is / was your position or role in the government?
2. To what extent have you been aware of, or directly collaborated with the NEO project?

Overall changes / externalities:

1. Have there been any major changes in this municipality or region since _____²⁴ that may have affected the NEO project?

²³ Project start date in this specific community; information about project start date will be obtained from the NEO community mobilization specialist

²⁴ Project start date in this specific community; information about project start date will be obtained from the NEO community mobilization specialist

2. Have there been any major private or public investments or disinvestments in this municipality or region since _____²⁵ that has significantly impacted socio-economic conditions?

In regards to perceptions and engagement with NEO:

1. What has been your overall experience with the NEO project; what activities have been carried-out, and how has it impacted on the municipality / region?
2. How often, on average, did you interact with NEO project staff, community Working Group members, etc.; what was the main form of this interaction?
3. What was the objective of interaction?
4. Have you been updated on a regular basis on the progress in elaboration of community development plans?
5. Have you supported NEO project in community awareness rising and mobilization?
6. What has been your experience in supporting NEO project in community mobilization? Was it challenging? Please, explain
7. Have any capacity building activities been undertaken by the NEO project for your municipality?
8. What capacity building assistance have you received from NEO?
9. Who were targets of capacity building activities?
10. What was the basis for provision of a capacity building technical assistance? Was it a gap analysis, etc.?
11. How useful do you think was provided capacity building assistance? Why or why not? Any suggestions for future?
12. Have you participated in presentation of community development plans?
13. What is your opinion about the plans? What were the strong and weak sides of the plan? Have you had suggestions/comments and were they reflected in community development plan?
14. In general, how would you describe the process/approach to enhance community participation in local economic development? Is it the way it should be done or what alternative approach would you suggest? Why or why not?

In regards to collaboration on planning and investment:

1. Do you believe that you have a high or low level of public awareness of Community Economic Development Plans?
2. What, if any, specific measures have been taken in this municipality to ensure that the priorities / needs of communities are met?
3. Have NEO project activities made your life easier, or more difficult? Why?
4. To what extent are municipalities incorporating NEO-supported Community Economic Development Plans into Municipal Economic Development Plans? Please, provide examples
5. To what extent are regions incorporating Municipal Development Plans into their own plans / planning activities? Please provide examples.

²⁵ Project start date in this specific community; information about project start date will be obtained from the NEO community mobilization specialist

6. How representative were of their communities community planning meetings and composition of working groups and focus groups including women, lower income, ethnicity, etc.?
7. How working group identified priorities compare with community needs?
8. What are the main limitations at present on community and municipal planning?
9. How can communities, municipalities and regions work together to better plan and invest in the future?
10. Has there been any collaboration with the private sector on any projects or investments?

In regards to infrastructure projects:

1. Are you aware of infrastructure projects implemented in communities supported by NEO?
2. What is your opinion of the NEO infrastructure project development process?
3. Were NEO infrastructure projects able to leverage resources (cost sharing, etc.) from your municipality / region and collaborate directly?
4. What has been the best thing about these projects?
5. How would you recommend doing these projects better in the future?
6. Has there been any good collaboration on either the municipal or village level with the Village Program? Examples, please

Informant Typology: Local Business Leader

Definition of Informant: Representatives of businesses that are active in municipalities targeted by the NEO project and have had some engagement with NEO-facilitated economic development planning activities or infrastructure projects.

Framing questions:

1. What is the nature of your investment in this community / municipality?
2. Have you collaborated with the local government, NEO or other donor-supported project since _____.²⁶ If so, how?

Overall changes / externalities:

1. Has your investment significantly increased or decreased in this community / municipality since _____ ?²⁷
2. Have there been any major changes in the business / economic environment in this community / municipality since _____ ?²⁸

In regards to awareness / participation in LED planning processes:

1. Are you aware of any Community or Municipal Economic Development Plan currently in-place, or developed previously?
2. Have you participated in any economic development planning activities / exercises? If so, which?

²⁶ Project start date in this specific community; information about project start date will be obtained from the NEO community mobilization specialist

²⁷ Project start date in this specific community; information about project start date will be obtained from the NEO community mobilization specialist

²⁸ Project start date in this specific community; information about project start date will be obtained from the NEO community mobilization specialist

3. How representative were of their communities community planning meetings and composition of working groups and focus groups including women, lower income, ethnicity, etc.?
4. How working group identified priorities compare with community needs?
5. In your opinion, who is responsible for leading economic development planning and engaging local businesses such as yours?
6. Who is your main advocate in local government, and what is your form of collaboration?
7. Are you aware of any Economic Development Committee in the municipal sacrebulo? How active are they?

In regards to investment:

1. Have you made any investments or public-private partnerships on the basis of planning / coordination with government, communities or economic development plans? Please elaborate.
2. What measures has the local, regional or national government taken to make your day-to-day business easier or more difficult?
3. In your view, is it easier or more difficult to do business in Georgia's regions now than it was three years ago? Why?
4. Have any infrastructure upgrades in the local community / municipality had a direct impact on your business? If so, how?

Informant Typology: NEO Staff Member

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 LED component of the project.

Framing questions:

1. What is your position and responsibilities on the NEO project?

Overall changes / externalities:

1. Have there been any major changes in project strategy or implementation of the LED component of NEO relevant to this evaluation?
2. 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:

1. In your view, what are the greatest successes of NEO's LED component to date?
2. What have been the greatest challenges to NEO's LED component to date?
3. If you could do anything differently, what would it be?
4. Have targeted municipalities effectively linked with the national government's "Village Program"?

In regards to LED planning:

1. Please describe the overall process that the NEO project has taken in communities?
2. How community planning meeting was organized
3. How information concerning the community planning meeting was communicated to community members
4. Where local government representatives supportive in organization of the meeting

5. Where community planning meetings were held?
6. How well your community was represented at the community planning meeting (women, lower income residents, different ethnicities, etc.)?
7. Has a certain group dominated a community planning meeting? How have you addressed this challenge?
8. Who has facilitated a community meeting?
9. What explanatory information have you communicated to community members about the meeting and follow up activities?
10. Have community members discerned an interest to get involved?
11. Have you provided community members with handouts? What was the content, and how useful they were perceived by participants?
12. Has every participant had an equal opportunity to express himself/herself on top priorities related to economic development? How well a working group composition represents a community? What is the proportion of women and men?
13. What was the procedure governing working group member election? Was it justified/reasonable, fair and democratic?
14. Have participants used any criteria when nominating and electing a working group member? What were they?
15. Around which sectors were working groups established?
16. How working group identified priorities compare with opinions reflected by different participants about local economic development priorities during the community planning meeting?
17. How soon was the first working group organized after a community planning meeting?
18. What was the time period between community planning meeting and the first working group meeting?
19. How many working group meetings were held? What was the objective of the meetings? Do you think planning and meetings were conducted in an efficient way (time-wise, topics covered, etc.)?
20. Have working group members signed the letters of commitment that included clearly defined their roles and responsibilities?
21. How were working group activities organized? Who conveyed working group meetings? Who decided on the agenda and who decided on the need to have a working group meeting? Who has led working group meetings? What was the venue of meetings? Has a working group adopted and followed time delimited activity plan with assigned tasks to implement its responsibilities?
22. What do you think, how well working group identified priorities reflect community needs?
23. How would you describe the process of nomination and selection of focus group members? Was it through voting?
24. How many focus groups were created?
25. How well focus group composition represents a community and what is the proportion of men and women?
26. How focus group activities/meeting were organized? Who conveyed focus group meetings? Who decided on the agenda and who decided on the need to have a focus group meeting? Who has led focus group meetings? What was the venue of meetings? Has a focus group followed time delimited activity plan with assigned tasks to implement its responsibilities?

27. How efficient were focus group meetings (time-wise, topics discussed, etc.)?
28. Where there any adopted approaches followed by focus groups to collect relevant data?
29. Were there any procedures or has collected data by working groups been checked for accuracy?
30. Who has consolidated community development plan? Are you happy with that? Why or why not?
31. Where and how community development plan was presented to community members?
32. Has a working group accepted comments/suggestions and revised community development plan accordingly after meeting with community members? please, provide examples
33. What was the role of local government in elaboration of community development plan?
34. Who has provided a technical input (s) in community development plan?
35. Were members of working group/focus group provided with capacity building technical assistance during the process?
36. On average in how many training sessions one member has participated?
37. How specific capacity improvement needs were identified? Was it based on gap analysis, etc.?
38. How useful was capacity building assistance? Why, why not? Where there suggestions about alternative approaches? Why or why not?
39. Has a working group presented community development plan to decision makers in a municipality?
40. Have the municipalities embraced or ignored Community Economic Development plans?
41. Who made presentation and what was the process?
42. Who from municipal decision makers participated in discussions?
43. Were decision makers at the municipality happy with presented plan? Why or why not?
44. Has a working group received comments/suggestions form decision makers at the municipality and have you reflected them in your community development plan?
45. Has a community development plan been incorporated into municipal development plan?
46. Does a community have time-delimitated budget plan for implementation of community development plan? What is the period covered? What is the fund distribution (breakdown) in terms of source?
47. What has been the process/protocol for updating of an adopted community development plan?
48. What percentage of Working Groups are continuing to work, and regularly updating Community Economic Development plans?
49. What percentage of community members would benefit after implementation of working group identified priorities?
50. In general how would you describe the process/approach to enhance community participation in local economic development? Is it the way it should be done or what alternative approach would you suggest? Why, why not?
51. What are the key factors of success in LED planning?
52. How has the project managed to get municipal and regional government authorities interested in community economic development planning?
53. To what extent has the LED component been successful in advancing the priorities of communities at the municipal level? What are some strategies that have been used to achieve this?
54. Are there certain policy changes that need to be made to ensure sustainable planning processes at the community and municipal levels?

55. What are the most popular priorities of Community Economic Development plans?

In regards to infrastructure projects:

1. What have been the most and least successful infrastructure projects, and why?
2. How infrastructure rehabilitation project (s) was selected? Was it participatory?
3. What strategies have been utilized by NEO to ensure buy-in from local communities, businesses, and government in the infrastructure projects?
4. Who has implemented a project? How? Why?
5. Is a project maintained and repaired to ensure its proper functioning/operation?
6. What effect did this project(s) have upon the community (community and HH level)?
7. Do Community Economic Development plans continue to be utilized after the infrastructure project? If so, how?
8. Approximately what percentage of infrastructure projects have directly related to plans / strategies at the municipal level?

11.6.2 Components 2,3 Qualitative Interview Guides

FOCUS GROUP AND KEY INFORMANT INTERVIEW GUIDES (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 additional strategies were 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. Are businesses selected for support sustainable over the long-term?
18. 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 short-comings?
28. 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:²⁹

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?

²⁹ According to NEO, types of new technologies are defined as: a) Mechanical and 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.

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?:

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. 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?

11.7 Annex 7: Conflict of Interest Forms for Team Members

Each of the evaluation team members signed a conflict of interest form. These forms been provided to USAID separately.