

**GEORGIA
PROGRAM MONITORING AND EVALUATION PLAN**

**Original Acknowledged and Approved by Millennium Challenge
Corporation**

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1. Overview

The Government of Georgia (GoG) and Millennium Challenge Corporation (MCC) signed a \$295.3 million Compact in 2005 that aims to reduce poverty through economic growth by focusing on key constraints to development through rehabilitation of dilapidated infrastructure, improvements to roads and energy infrastructure, and investment in SMEs and agribusinesses. The Program primarily emphasizes regions outside of the capital of Tbilisi.

Monitoring and Evaluation (M&E) is a key component of Program implementation in order to follow MCC's results-based approach. The M&E Plan serves the following functions:

- Explains in detail how Millennium Challenge Georgia (MCG) and the MCC will monitor the Projects in order to determine whether they are achieving their intended results and measure their impacts over time.
- Serves as a guide for Program implementation and management, so that MCG staff, Supervisory Board members, GoG, and Implementing Entities understand the results they are responsible for achieving, and that the beneficiaries and stakeholders are aware of progress towards those results.
- Alerts MCG, implementing entities, and other stakeholders to problems in Program implementation, provides a basis for making any needed Program adjustments, and informs key project decisions.
- Describes impact and other evaluations that assess the causal relationship between the Program and its Goal and demonstrate the overall impact the Program ultimately has on poverty and economic growth in Georgia.

This M&E Plan is considered a binding document, and failure to comply with its stipulations could result in suspension of disbursements. It may be modified or amended as necessary only with the approval of MCC and if it is consistent with the requirements of the Compact and any other relevant supplemental legal documents.

This document reflects the first amendment made to the M&E Plan, agreed with MCC on the denoted date of the cover page. MCG has now complied with MCC's Guidelines for Monitoring and Evaluation Plans developed in 2006; adjustments were needed given that the original plan was developed prior to the establishment of these guidelines.

2. Summary of the Program and Objectives

The Georgia Program focuses primarily on the regions outside of the capital of Tbilisi. The Program's Goal is Economic Growth and Poverty Reduction in Georgia, and, more specifically, has an overall Program Objective of economic growth and po-

verty reduction in the regions of Georgia outside of Tbilisi. The Program will be implemented over 5 years and comprises two Projects, with a total of five Activities.

2.1. Regional Infrastructure Rehabilitation Project (\$216.3 million)

The Objective of this Project is key regional infrastructure rehabilitated, which is supported by the following three Activities:

- Samtskhe-Javakheti (S-J) Road Rehabilitation (\$123.6 million) – Rehabilitation and construction of approximately 171 kilometers of the main road traversing the S-J region.
- Main Gas Pipeline Rehabilitation (\$49.5 million) – Rehabilitate the North-South Gas Pipeline that fuels electric power generation and provides heat to homes and businesses, and to further develop and implement the Georgian government's energy sector strategy.
- Regional Infrastructure Development (RID) (\$43.2 million) – Fund regional and municipal physical infrastructure for improved potable water supply.

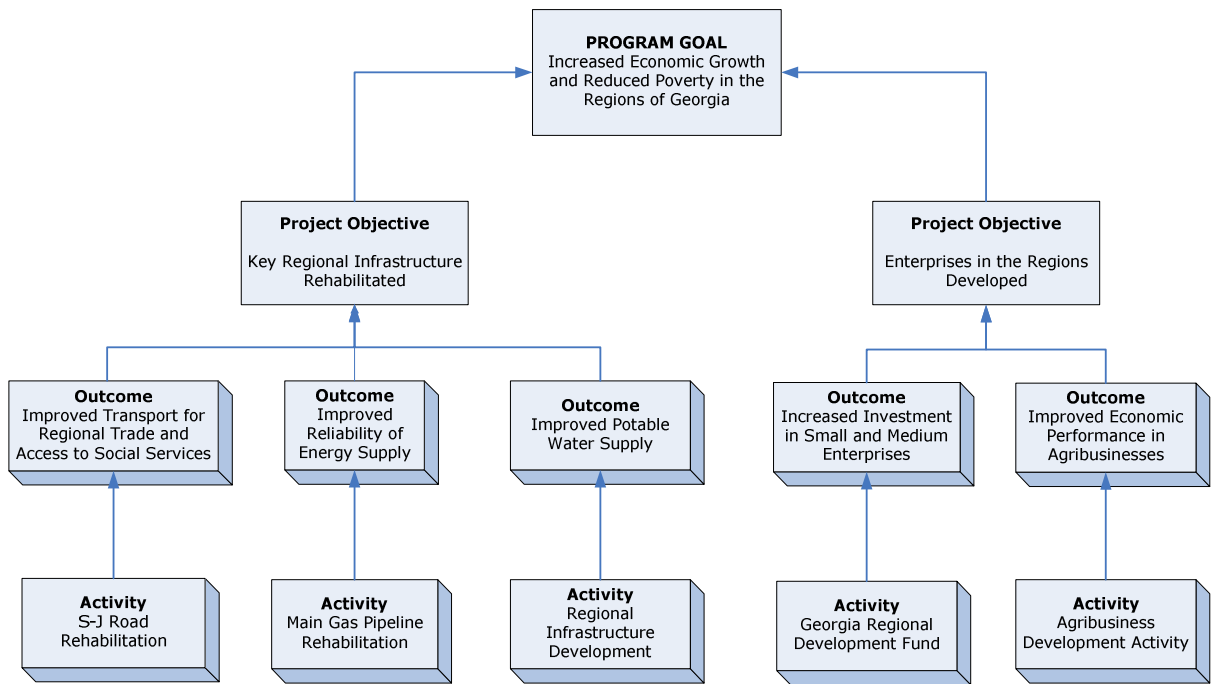
2.2. Enterprise Development Project (\$47.5 Million)

The Objective of this Project is enterprises in the regions developed, which is supported by the following two Activities:

- Georgia Regional Development Fund (GRDF) (\$32.5 million) – Fund a professionally- and independently-managed investment fund to provide long-term risk capital and technical assistance to SMEs, primarily in the regions outside of Tbilisi, and to identify legal and policy reforms needed to improve the investment environment.
- Agribusiness Development Activity (ADA) (\$15 million) – Grants and technical assistance to farmers and agribusinesses that supply both agricultural raw and processed products to the domestic and international market.

The following is a Program Logic diagram, demonstrating the links between these Projects and Activities and the Compact's expected Outcomes, Objectives, and Goal.

Program Logic Diagram



3. Economic Analysis

The economic impact of the Program was estimated by forecasting the economic and income gains of each Activity relative to the costs, as demonstrated through the calculation of an Economic Rate of Return (ERR). Costs and benefits were estimated using the best available data at the time of Program development. The resulting ERR projections can be considered reasonable estimates of the expected results of the Activities and Projects.

The following is a summary of ERRs for each of the Activities:

Activity	ERR
<i>Regional Infrastructure Rehabilitation Project</i>	
S-J Road Rehabilitation – Original	20.4%
S-J Road Rehabilitation – Updated (per Activity restructuring, detailed below)	17.8%
Main Gas Pipeline Rehabilitation	11.7%
RID	11.6%
<i>Enterprise Development Project</i>	
GRDF	26%
ADA	12%

S-J Road Rehabilitation

Original Project

The original ERR of the S-J Road Rehabilitation is 20.4 percent over a 24-year time horizon. The key benefit streams are reduced vehicle operating costs for road users and increased agricultural value.

In southern Georgia, deterioration of the roads has cut the region of Samtskhe-Javakheti off from the rest of the country. With high costs to transport produce out of the region, regional farmers are unable to compete with farmers from other regions. Moreover, the poor road infrastructure also creates significant obstacles to importing high quality agricultural inputs and other goods. Rehabilitation of roads in the Samtskhe-Javakheti area is expected to foster economic development in Samtskhe-Javakheti through:

1. Increasing exports of agricultural products from the region.
2. Increasing social, political and economic integration of the local population in Samtskhe-Javakheti, including ethnic minorities, with the rest of Georgia.

3. Expanding international trade, by providing a more direct transport link from Tbilisi and eastern and southern Georgia to Turkey and by rehabilitating the existing road from Ninotsminda to Armenia; and
4. Complementing other road development projects.

The principal economic contribution of the S-J Road derives from opening up the region to commerce that would otherwise be unprofitable as a result of high transportation costs. Economic analysis includes not only the standard savings to vehicle operating costs but also the projected impact of the road on agricultural output. Unquantifiable benefits that are not included in the estimates include gains to other non-agricultural industries that result from better transit as well as social and educational gains resulting from better access to markets, schools, and health centers.

In order to quantify the benefits of reduced vehicle operating costs, the World Bank's HDM-4 model was applied. To estimate surplus agricultural production from improved transport, it was assumed that agricultural output across all sectors would increase 10 percent in 2010 and, through 2020, rise to the levels experienced during the Soviet era.

Sensitivity analysis conducted by MCC economists confirmed that predicted economic returns from the road rehabilitation are robust to changes in the cost and benefit assumptions.

2008 Restructuring

The updated ERR of the S-J Road Rehabilitation is 17.8 percent. In early 2008, it was recognized that the Activity was facing significant cost over-runs, due to rising world prices of fuel and materials and exchange rate deterioration. Consequently, a re-scoping exercise of the project was done in which the number of kilometers expected to be rehabilitated was reduced to 171 kilometers, and some additional funds from other areas of the project were added to the Activity budget to help cover the additional costs. A revised ERR calculation was done to ensure that the expected economic impact of the Activity would still be robust despite increased costs and possibly reduced benefits. The revised ERR was well over the minimum threshold required for investment.

Main Gas Pipeline Rehabilitation

The ERR of the Main Gas Pipeline Rehabilitation Activity is 11.7 percent over a 10-year time horizon. The key benefit streams are reduction in gas losses and monetized carbon credits.

By rehabilitating the North-South Gas Pipeline, it was assumed that Georgia could avoid additional expenditures on gas purchases and reap returns from selling

carbon credits for the reduction of greenhouse gas emissions under the United Nations Framework Convention on Climate Change.

Beneficiaries include households, businesses and industrial enterprises throughout Georgia that consume gas or electricity. Rehabilitation will improve a situation which currently endangers the environment as well as the health and safety of the population. Another benefit was expected to be carbon credit revenue which may be secured as a result of reduced greenhouse gas emissions related to pipeline rehabilitation. The emergency repairs are expected to provide a significant increase to the reliability and security of the country's energy supply.

It should be noted that since Program implementation began, the carbon credit facility that was expected to be established is no longer moving forward, so those expected benefits may not materialize. However, the reduction in losses from both emergency and other types of repairs is expected to still provide a robust economic impact.

RID

Original Overall ERR

The overall original ERR of the RID activity is 11.6 percent over a 19-year time horizon.

Rehabilitation and development of infrastructure for local services will improve the operation of important population centers and reduce business transaction costs, thereby contributing to economic growth and poverty reduction. Improvements in local services will also have a direct impact on quality of life, thereby benefiting the poor. It was impossible to calculate a precise ERR for the RID Activity, as investments only began to be selected once the Activity became operational. As a substitute, MCC economists analyzed a representative comparison group of projects submitted to the World Bank's Georgia-Municipal Development and Decentralization Project II for their content and economic potential.

In addition, at the time the ERR was calculated during Program development, it was assumed that RID would make investments in a variety of sectors, including water, sanitation, roads, and gasification. At this point, all of the investments will be in potable water systems, which may have an effect on any ex-post ERR that is calculated, though it is anticipated that such ERR would still be very strong.

Project ERRs

As mentioned above, each individual investment under the Activity must have an initial estimated minimum ERR of 15% (exclusive of project management and oper-

ating costs). At this point, the ERRs for the following projects that have been approved for investment are:

Project	ERR
Bakuriani	17.8%
Poti	15.4%
Kobuleti	17.7%
Kutaisi	18.0%
Borjomi	15.9%

GRDF

The overall ERR of the GRDF activity is 26 percent over a 15-year time horizon. The key benefit streams are incremental profits of entrepreneurs and incremental wages of employees.

The GRDF is designed to give small and medium sized companies access to the risk capital and technical assistance they need to grow. The fund will (a) provide a competitive mechanism for allocating capital to small and medium sized companies, with a particular emphasis on agriculture and agribusiness, (b) build local company and fund management capacity, and (c) encourage and build support for legal reform that will improve the enabling environment for investment in Georgian SMEs.

Expected financial rates of return (IRR) have been estimated using quantitative data from the Small Enterprise Assistance Funds (SEAF), which was ultimately selected to manage the GRDF activity. Analysis prepared by SEAF during development of the Program showed weighted average gross IRRs of approximately 5 percent and net IRRs of -2.5 percent. Such returns were broadly consistent with those from funds managed by bilateral and multilateral donors and NGOs.

The original ERR for the Activity was estimated using indicative Georgian investment proposals in agribusiness and tourism that were drawn from Georgian entrepreneurs encountered during MCC due diligence. Analysis suggests an ERR of 26 percent. This reflects underlying benefits in net profit, wages paid, taxes paid, and payments to local suppliers, particularly farmers in the case of agribusiness projects. This definition is conservative because it ignores benefits that may accrue to competitors, local communities, suppliers of related products, financial institutions, or other parties, as well as any “spillover” benefits to the economy. However, this definition does account for the expected net IRR of -2.5 percent noted above.

ADA

The overall ERR of the ADA activity is 12 percent over a 10-year time horizon. The key benefit streams are (i) increased farmers’ net agricultural incomes and laborers’ wages, (ii) increased service providers’ net revenues and wages, (iii) increased

value-added enterprises' net revenues and incremental wages, (iv) increased value chain agribusinesses' net revenues and incremental wages, and (v) increased farmers' agricultural incomes due to improved outreach

The ADA is expected to contribute to poverty alleviation by accelerating agriculture sector transformation from subsistence production to profitable farms and rural enterprises directly participating in commercial value-chains. The Activity's efforts to identify, introduce, and anchor appropriate innovations in primary agriculture and agribusiness is expected to:

1. Mitigate problems of incomplete information, credit constraints, and risk perceptions and management, leading in turn to increased productivity, profitability, and incomes; and
2. Facilitate and increase meaningful coordination among stakeholders in key agricultural value chains, permitting them to take advantage of larger, more integrated vertical economies.

4. Beneficiaries

The beneficiaries of the Program can be categorized by Activity. Overall, the Compact will benefit a variety of households and businesses across multiple regions.

Below is a summary of beneficiaries by Activity:

Activity	Beneficiaries
<i>Regional Infrastructure Rehabilitation Project</i>	
S-J Road Rehabilitation	53,988
Main Gas Pipeline Rehabilitation	n/a
RID	265,964
<i>Enterprise Development Project</i>	
GRDF	4,400
ADA	54,246

S-J Road Rehabilitation

In total about 53,988 people¹ is expected to benefit from this Activity, comprised of households in relative geographic proximity to the road. Specifically, the catchment area is defined as the four *rayons*, or districts, through which the road passes in the Samtskhe-Javakheti and Kvemo-Kartli regions – Tetriskaro, Tsalka, Ninotsminda, and Akhalkalaki – totaling about 4,845 square kilometers. The beneficiary population is defined conservatively as the population residing in those four districts, comprising

¹ Table 2.1-1 (Feasibility Study - by Kocks Consult GmbH in association with Designing and Consulting Company BT

about 47 villages. It is quite likely, however, given the importance of the corridor through which the road passes, and the road's connection to the Turkish and Armenian border, that many more people will benefit from the road rehabilitation.

Main Gas Pipeline Rehabilitation

Due to the broad scope of this project, it is not possible to estimate a specific number of individual beneficiaries. However, it can reasonably be assumed that nearly all of the country's population will benefit to some extent from the increased energy reliability and security, and the reduced losses and resulting savings that will stem from the Activity.

RID

About 265,964 population² is estimated to benefit based on the water system projects that have already been chosen for investment. This is based on the population of the five cities where projects have been selected – Bakuriani, Borjomi, Kobuleti, Kutaisi, and Poti – as the breadth of the projects will allow the entire urban population in these areas to benefit. These individuals will have their standards of living improved by going from having only 1 to 2 hours of running water a day to 24 hours a day, as well as improved water quality.

GRDF

About 20 entrepreneurs, 1,892 company employees, and 2,508 local suppliers, for a total of about 4,400 are expected to benefit from the Activity.

ADA

The 54,246 beneficiaries of ADA includes: 2,684 direct beneficiaries and 51,562 indirect beneficiaries. Direct beneficiaries include grant recipients and employees who fill jobs created by grant recipients. Indirect beneficiaries include suppliers and clients of grant recipients.

5. Monitoring Component

MCG will conduct ongoing quarterly and annual monitoring of Project and Activity results by tracking the following indicators against their established targets. This will permit Program managers and stakeholders to assess progress in implementation, whether the Program is achieving its intended results, and to make programmatic adjustments as necessary.

² Number of Population is defined according to Feasibility Studies: Poti – 42,000; Borjomi – 15,000; Bakuriani – 2,000; Kobuleti – 20,964; Kutaisi – 186,000

It is important to note that this revised version of the M&E Plan contains some changes in indicators and targets from Annex III of the Georgia Compact. However, Annex III states, “Notwithstanding anything to the contrary in the Compact, including the requirements of this M&E Annex, MCC and the Government (or a mutually acceptable Government Affiliate or Permitted Designee) may modify or amend the M&E Plan or any component thereof, including those elements described herein, without amending the Compact; provided, any such modification or amendment of the M&E Plan has been approved by MCC in writing and is otherwise consistent with the requirements of this Compact and any relevant Supplemental Agreement between the Parties.” (*Georgia Compact, Annex III, Section 5.d.*) Details of these changes, and the reasons for them, are documented in **Annex I** of this M&E Plan. MCC’s written approval/ no objection to this revised M&E Plan also constitutes acceptance of the indicator and target changes.

5.1 Indicators

The table attached as **Annex II** of this M&E Plan outlines the indicators at the Goal, Objective, Outcome, and Activity level that will be monitored. The Goal indicators will measure the overall impact of the Program, Objective indicators measure high-level results of the Projects and how well they meet their Objectives, Outcome indicators measure the intermediate results of the Activities, and Activity indicators measure the delivery of key goods and services, outputs, and process milestones that demonstrate whether the Activity’s early implementation is on track.

5.2 Baselines and Targets

All of the Monitoring Component indicators will be measured against established baselines and targets, to ensure that the Program is on track to meet its overall Goals and Objectives. Targets are derived from ex-ante economic rate of return analysis, and other types of analysis and other project planning documents, so that they reflect the underlying assumptions made in program design about what each activity would likely achieve.

The complete list of baselines and targets is outlined in **Annex III** of this M&E Plan.

5.3 Performance Indicator Reference Sheets

In addition to the meta-data on indicators contained in this M&E Plan, MCG also has prepared more detailed Performance Indicator Reference Sheets (PIRS) on each indicator, to fully document its definition, source, collection method, calculation

methodology, and other key information. PIRS ensure that MCG and implementing entities have all of the information they need to consistently collect, report on, and understand each indicator.

PIRS are developed together by MCG and implementing entities. They are available on request from the MCG M&E Staff, who take responsibility for archiving them and keeping them up to date.

5.4 Disaggregating Data by Gender, Income, and Age

In cases where beneficiaries are individually identifiable, they will be disaggregated by sex, age, income, and urban/rural to the extent practical and such information shall be made publicly available at an aggregated level (not including names, addresses, and other identifying information). MCG will also report this information to its external constituents, including the Government of Georgia and civil society.

Below is a list of indicators that will be disaggregated, and their type of disaggregation:

Activity	Indicator	Disaggregated By
ADA	Jobs Created	Gender
ADA	Number of beneficiaries (direct and indirect ³)	Gender
RID	Number of beneficiaries ⁴	Gender
GRDF	Number of Portfolio Company employees	Gender

5.5 Data Quality Reviews

Data quality reviews will be used to verify the quality and the consistency of performance data over time, across different implementing units and other reporting institutions. Such data quality reviews will also serve to identify where high levels of quality are not possible, given the realities of data collection circumstances. These assessments will mainly cover data reported from implementing entities and may include surveys and other data sources as necessary. The particular objectives for the data quality reviews will be identification of the following parameters: (i) what proportion of the data has quality problems (completeness, conformity, consistency, accuracy, duplication, integrity); (ii) which of the records in the dataset are of unacceptably low quality; and (iii) what are the most predominant data quality problems within each field.

³ For the disaggregation of the Indirect Beneficiaries by gender will be used ADA Beneficiary Survey data provided by the Institute for Polling and Marketing (IPM)

⁴ Assumption of disaggregation RID beneficiaries by gender will be available after completion of baseline survey

The data quality reviews will be conducted at least twice during the Program life. The assessments will mainly cover data reported by implementing units, but may include other data sources (such as DS) as necessary. Within MCG, the M&E Director will oversee the contracting of independent data quality reviewers through competitive procurement. The M&E Unit within MCG will also conduct spot checks of data quality through field visits.

5.6 Progress Reports

MCG follows current approved MCC reporting guidelines, as posted on the MCC website (www.mcc.gov) and provided by MCC to MCA units. Quarterly and annual reports will be submitted according to schedules and formats outlined in such guidance, including the Indicator Tracking Table and any required narrative content. Within 14 calendar days of MCC acceptance of completed reports, material information contained in the report (at a minimum, the Indicator Tracking Tables) shall be posted on the MCG website. Finally, MCG will report to its external constituents, especially the Government of Georgia, the Supervisory Board, and civil society, on a regular basis.

5.7 Linking Disbursements to Performance

The Disbursement Agreement includes several Conditions Precedent (CPs) to disbursements including the achievement of certain Indicator targets. The Disbursement Agreement also contains a CP that requires the M&E Plan to remain “current and updated.”

6. Evaluation Component

MCG will evaluate the impact of its Program through four assessment exercises:

- (1) *ad hoc* and special studies, executed over the course of the Program life to address specific concerns raised during implementation and designed to increase MCG’s power to interpret monitoring and evaluation findings;
- (2) a Program Completion Report, providing final output and outcome conclusions based on measured achievement of project and goal level objectives as well as basic program accomplishments and financial performance;
- (3) Impact Evaluations for Activities where it is possible to carry out a rigorous, quantitative study to determine the impact on poverty reduction and income that can be attributed to MCC interventions. The distinctive feature of an impact evaluation, compared to other types of evaluations, is the use of a counterfactual. The counterfactual identifies what would have happened to the beneficiaries, absent the program; and

- (4) Other evaluations for Activities where it is not possible to conduct an impact evaluation, but where it is relevant to employ an alternative methodology to assess and quantify the Activity's results and impact.

The following are detailed descriptions of each of those elements.

6.1. Ad-Hoc and Special Studies

MCG, in consultation with MCC, will plan some special studies to more deeply investigate particular issues relevant to the Program, its results, and lessons learned. Special studies under consideration include:

- Exploration of risk assessment and analysis approaches related to the Main Gas Pipeline Rehabilitation Activity. Specifically, investigating how to quantify and measure the reduction of risk, decreasing of accidents, and increasing energy reliability, and their various effects on the country's energy supply and economic activity that depends on energy supply; and
- Study on the changes in the tourism industry during the life of the Program, effects of those changes on the economy, and how various Program Activities may have influenced those changes. Several activities, including the S-J Road, the RID potable water projects, and GRDF, are expected to have indirect effects and benefits on the development of the tourism industry and on increasing its contribution to the economy. This special study would investigate some of those hypotheses using a combination of qualitative and quantitative methods.

6.2. Program Completion Report

A final progress report, the Program Completion Report (PCR), will be prepared by the Program closing date. The objectives of the PCR are to provide a history and close-out report of the outcomes of the program as well as to assess MCG's management of the program. In particular, the PCR should:

- Provide a concise history of the program from proposal to completion;
- Evaluate the performance of MCG in identifying and solving problems related to implementation and program management (with reference to such aspects as performance of implementing units, compliance with Compact provisions, program costs, disbursements and institutional improvements);
- Qualitative analysis of factors and constraints that influenced program implementation, including technical, managerial, organizational, institutional and socio-economic policy issues, in addition to other external factors unforeseen during design;

- Provide a preliminary assessment of the program’s outcomes and financial performance;
- Identify beneficiaries and their characteristics, including gender and income level, and level of participation;
- Provide a preliminary assessment of the program’s sustainability, beyond the five years of the Program; and
- Assess significant environmental, social and cultural issues related to the Program and evaluate the effectiveness in addressing them and in implementing environmental control measures.

6.3. Impact Evaluations

Rigorous impact evaluation is important in order to be able to attribute Program results to MCC interventions in a reliable manner, rather than to other causes, and assure the validity of reported Program results and outcomes. It also provides applicable lessons for similar future programs and promotes country accountability.

M&E staff in MCG and MCC, in conjunction with other technical counterparts at each organization, has determined that two activities – ADA and the S-J Road – are eligible for this type of evaluation, taking into account appropriate methodologies and cost-effectiveness.

The final impact evaluation should address, but not be limited to:

- Why goals, objectives and targets were or were not achieved;
- Positive and negative unintended results of the program;
- Effectiveness of program activities and whether results can be attributed to MCC interventions;
- Lessons learned that can be applied to other Programs/projects of a similar nature;
- Long-term sustainability of results;
- Impact on economic growth, poverty reduction, and the income of Program beneficiaries;
- Analysis of Program beneficiaries and their characteristics, including gender, age, and income level; and
- Key relevant research questions to analyze Program outcomes.

The following are brief descriptions of each impact evaluation. A more detailed description is provided in **Annex IV** of this M&E Plan.

ADA

The impact evaluation will assess the Program’s impact on increasing income, reducing poverty, and creating jobs for direct and indirect beneficiaries. The goal of the impact evaluation is to measure the net impact of the ADA activity – i.e., what happened with

the Activity versus what would have happened if the Activity had not been implemented (also known as the “counterfactual”) – and to determine those results which can be reasonably attributed to the program, rather than other factors. Most importantly, the evaluation will measure the difference in the change in income of direct beneficiaries, the “treatment” group (grantees and individuals who receive new jobs created by the grants), as compared to a statistically similar comparison group, the “control” group.

A randomized methodology will be used for the Primary Producer component of ADA. Statistical matching models will be employed to evaluate the impact of the Value—Adder, Value-Chain, and Farm Service Center Components.

S-J Road Rehabilitation

The evaluation of the S-J Road will combine the use of a Geographic Information System (GIS) model with a statistical matching (Propensity Score Matching with Double-Difference) approach to assess the impact of the activity on various income and poverty variables.

6.4. Other Evaluations

Although impact evaluations may not be appropriate for all activities, it is still important to evaluate them to the fullest extent possible, and to make every effort to quantify their impacts. To that end, MCG may procure and oversee evaluations of the RID [and GRDF] Activities. Because of the limited sample sizes available (the number of communities and businesses, respectively, participating in each of these Activities is relatively small), a more rigorous methodology would be difficult to implement.

The following is a brief preliminary description of the evaluation concept for each activity. When more detailed design work is completed, that information will be added to this M&E Plan.

RID

Evaluation Concept: MCG will hire a consultant to design the evaluation concept for the RID activity. The design will be subject to the approval of MCC and MCG.

Potential Key Questions:

- What is the impact of each RID activity on reducing poverty and fostering economic growth in the communities where projects are implemented?
- What is the aggregate impact of all RID activity on poverty and economic growth (in terms of household income and value-added for businesses)?

GRDF

Evaluation Concept: If an evaluation of GRDF is determined to be appropriate, MCG will hire a consultant to design the evaluation concept. The design will be subject to the approval of MCC and MCG.

Potential Key Questions:

- To the extent it can be quantified, what is the impact of GRDF locally and nationally on economic growth and on the business environment, employment, production value (goods and services), investments, imports, exports and other key economic indicators?
- What are the indirect effects and backward and forward linkages generated by businesses funded by GRDF, and can the value of those benefits be estimated?
- What is the impact of GRDF on specific sectors, namely, agribusiness and tourism? Did investments in one sector fare better than another, and if so, why, and what factors contributed to this?
- What is the specific impact of the technical assistance component, and can that impact be quantified in terms of a significant difference between investments combined with technical assistance and investments without accompanying technical assistance, or with different levels of technical assistance, such as a large package or small package?
- What is the impact of investments in start-up businesses versus existing businesses, and did one type fare better than another, and if so, why and what factors contributed to this?

7. Assumptions and Risks

The success of the Program is fully related to achievements of each Project Activity, and projected outcomes are based on assumptions and external risks. These assumptions and risks are presented below for each Project Activity.

Assumption	Risk
OUTCOME 1. Improved Transport for Regional Trade and Access to Social Services	
<ul style="list-style-type: none"> ▪ Good political relationship of Government of Georgia with neighboring countries (Turkey and Armenia) ▪ Access to markets during the whole year period will support farmers to establish business relationships with wholesalers and supermarket networks 	<ul style="list-style-type: none"> ▪ Significant increase in fuel and other construction material prices ▪ Overall inflation, US Dollar devaluation and subsequent bargaining power decrease ▪ Loss of traditional regional market outlets due to economic embargo and conflicts
OUTCOME 2. Improved Reliability of Energy Supply	
<ul style="list-style-type: none"> ▪ Energy security and reliability of the energy supply to Georgia and the region will be increased ▪ Existing technical losses from the pipeline will be reduced and saved money will be reinvested by GOGC for rehabilitation of other damaged parts of the Main Gas Pipeline ▪ Prevention of accidents on the pipeline will become possible ▪ GOGC or some other party will invest in rehabilitation of secondary pipelines to increase number of household customers 	<ul style="list-style-type: none"> ▪ Significant increase in gas price by Russian supplying company (Gazprom) can reduce demand on gas ▪ Fuel switching among wholesale customers
OUTCOME 3. Improved Potable Water Supply	
<ul style="list-style-type: none"> ▪ Reliable water supply will contribute to consumers' willingness to pay 	<ul style="list-style-type: none"> ▪ Actual operation and maintenance cost can exceed amount of revenue collected by companies or municipalities ▪ Willingness of population to pay service fee to owners of the infrastructure system ▪ Limited financial capacity of the municipalities to maintain rehabilitated systems ▪ GOG default on operations and maintenance

Assumption	Risk
OUTCOME 4. Increased Investment in SMEs	
<ul style="list-style-type: none"> ▪ Increased diversity and intensity of production is financially profitable ▪ Creation of success stories will draw additional investments from abroad and cause multiplication of successful enterprises 	<ul style="list-style-type: none"> ▪ Limited number of existing SMEs in rural area ▪ Infrastructure in regions is badly degraded with essential services such as electricity and water intermittent at best and totally absent at worst ▪ Lack of technical capacity to produce viable business plans
OUTCOME 5. Improved Economic Performance in Agribusiness	
<ul style="list-style-type: none"> ▪ Farmers in Georgia are willing to adopt modern technologies (crop and livestock) ▪ Grants will require focus on high value perennial crops (fruit gardens, nurseries and etc.), which typically entail a lag of at least two years, post-investment, before revenues are realized 	<ul style="list-style-type: none"> ▪ Natural disasters (drought, hail or frost, animal infections, fungi and pest deceases) ▪ Due to limited technical knowledge, most of farmers will not be able to submit business plans ▪ Cultural suspicion of collective approach ▪ Overall inflation, US Dollar devaluation and subsequent bargaining power decrease

8. Surveys

The following table outlines all of the surveys sponsored with Compact funds that will be undertaken to supplement Monitoring data collection and to support the Evaluation component.

Survey	Brief Description	Timing	Purpose	Responsible Party
Integrated Household Survey	National socio-economic and living standards survey. Existing sample size will be increased by 3,382 (total 6,764 households).	Annual, with data collection on a quarterly basis	ADA and S-J Road impact evaluation, as well as end-of-Compact poverty calculations and beneficiary analysis	Georgia Department of Statistics
Village Infrastructure Census	A new nationwide census that will collect data on available infrastructure and its quality, use, and accessibility in every village in Georgia	PY 3, PY 4, PY 5	ADA and S-J Road impact evaluation, RID project evaluation	Georgia Department of Statistics
ADA Beneficiary Survey	Socio-economic survey of direct and indirect beneficiaries of the ADA activity, as well as their production levels, sales, revenue, and business practices.	Ongoing until end of Compact (based on set schedule tied to activity implementation and agriculture cycle)	ADA Monitoring, Impact Evaluation, and beneficiary analysis	Private survey firm (IPM)
Settlement Infrastructure Survey	Survey of infrastructure availability, quality, accessibility, and use in villages in the S-J Road project area	PY 4, PY 5	S-J Road Evaluation	Private Survey firm (not yet contracted)
RID Beneficiary Survey	Not yet contracted	PY 4, PY 5	RID monitoring, evaluation study, and beneficiary analysis	Private survey firm (not yet contracted)
Traffic Count and Origin-Destination Survey	Measure number of vehicles on each segment of the S-J road, disaggregated by type, as well as conduct a random sample survey on basic trip length and origin-destination of drives on the road	PY 4, PY 5	S-J Road monitoring	Private survey firm (not yet contracted)

9. Implementation and Management of M&E

9.1. Organizational Structure and Responsibilities

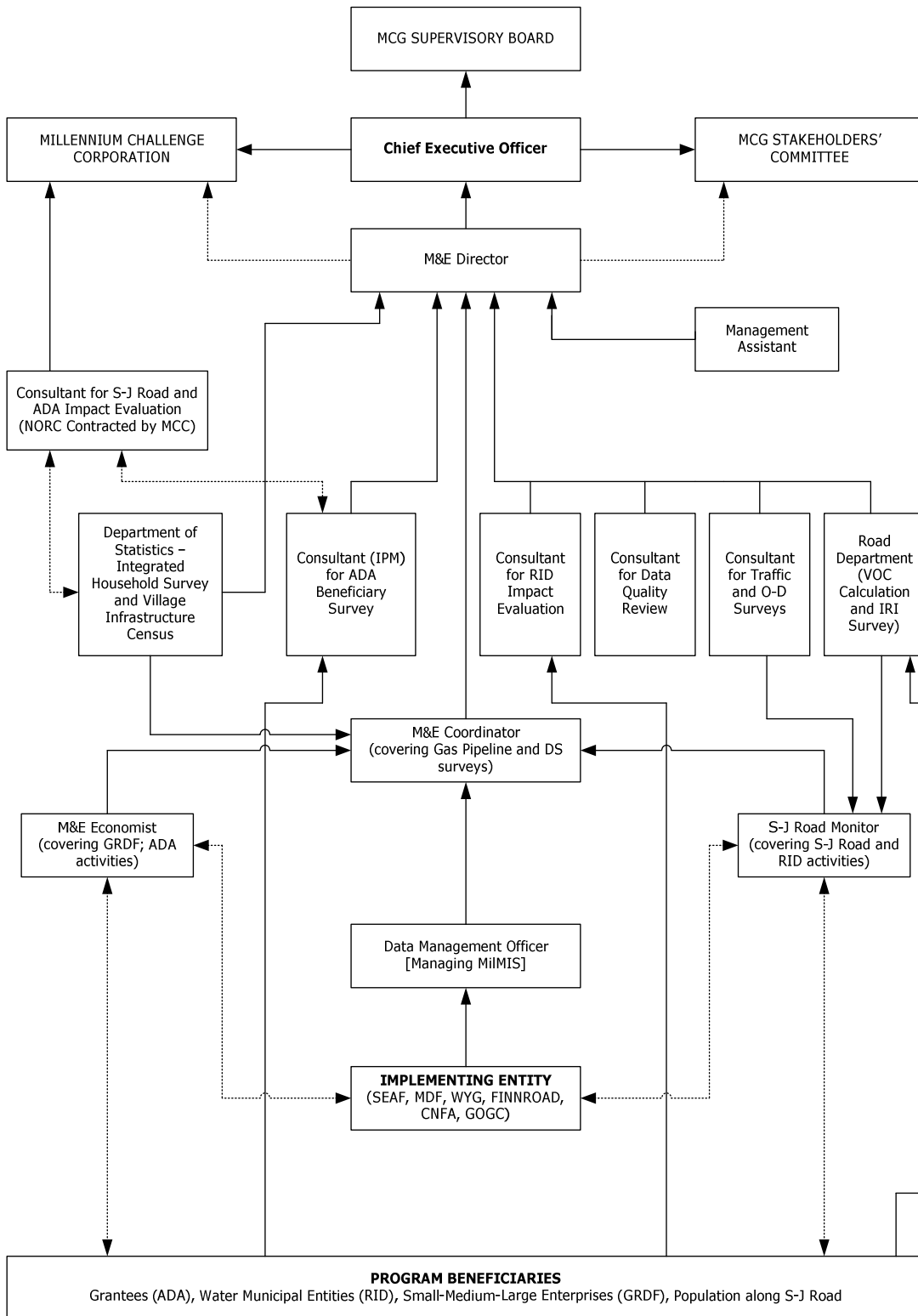
The M&E Unit established within MCG will be responsible for overall monitoring and evaluation of the Program. The M&E Unit will be headed by the Monitoring and Evaluation Director. The M&E Unit will be primarily responsible for coordinating and ensuring quality and accuracy in data collection and reporting on the indicators in this M&E Plan. In addition, the unit will oversee and manage all relevant contractors involved in data quality assessments, survey work, evaluations, and other activities.

Effective Program monitoring and evaluation also depends on actions not only undertaken by the M&E Unit but also on the effective involvement of MCG staff, implementing entities, and other actors in the M&E process. The M&E unit will work closely with MCG project directors to track results and seek input on evaluations and other activities, with the MCG outreach team to communicate results to key stakeholders, and with implementing entities to support their data collection and reporting efforts and to ensure data quality and accuracy.

Other M&E unit responsibilities include:

- Develop training material and train implementing entity M&E staff as necessary regarding any M&E requirements they must fulfill;
- Collaborate in the design and implementation of impact evaluations with MCC;
- Develop and maintain Performance Indicator Reference Sheets, showing such indicator-specific details as its precise definition and detailed data gathering and calculation methods;
- Identify, together with MCC, relevant special studies;
- Coordinate Data Quality Audit process; and
- With MCC, review and revise the M&E Plan as necessary.

The organization chart below outlines the key positions and functions of the M&E unit, as well as the relationships between the units and implementing entities and contractors.



9.2. Review and Revision of the Program M&E Plan

The Program M&E Plan will inevitably evolve over time to reflect changes in the Program's design and implementation and lessons learned.

The Disbursement Agreement contains a CP that the M&E Plan is current and updated prior to disbursement in Quarter 3 of each operating year. To that end, the M&E Unit of MCG, together with MCC, will review the M&E Plan each year in anticipation of this requirement, and update and revise it as necessary. This review should include the following steps:

- Prove that the intended logical causal relationship of interventions are occurring;
- Check that the selected indicators are sufficiently and accurately reflecting program results;
- Add performance indicators to track significant results that are occurring but are not being measured;
- Update the indicator targets when appropriate;
- Check that the definitions of the indicators are correct and sufficiently precise and that the frequency of the data gathering is satisfactory; and
- Update details on the Evaluation Component as relevant.

The Performance Indicator Reference Sheets for indicators requiring revision also will be updated in conjunction with any revision of the Program M&E Plan.

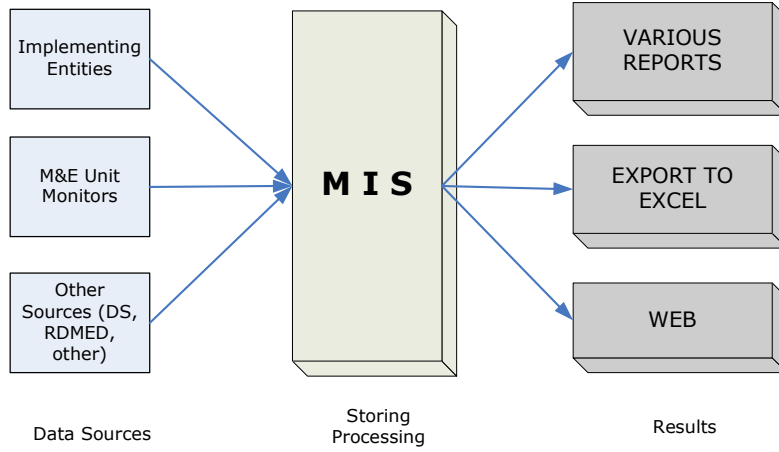
9.3. Confidential Handling of Data

All MCG employees who have access to any of the primary and secondary data related to the Program are expected to treat that data as confidential, meaning that it cannot be distributed or shared outside of MCG or used for personal research or work without the consent of the M&E Unit Director. Any inappropriate use or dissemination of Program-related data will be treated as breach of confidentiality and the responsible party will be subject to MCG policies on this issue.

9.4. Management Information System for M&E and Coordination of Data Reporting

MilMIS is a software system designed for data reporting and data warehousing of monitoring and other data collected under the M&E Plan. This file-server type software allows implementing entities and other stakeholders reporting data to MCC to send and receive data from their own management information and computer systems over the internet. MilMIS, in turn, receives data from implementing entities, archives it, and provides a report-generation capability. MCG field monitors can also fill out specially-formatted spreadsheets during data collection in the field, which can then be uploaded into the system when they are able to connect to the internet.

Data Flow Chart



10. Budget

Summary M&E Budget (\$000)

Expenditure Categories	PY1-PY2	PY3	PY4	PY5	PY1-PY5
Equipment for the M&E Unit	39.0	0.0	11.0	0.0	50.0
Technical Assistance	125.6	47.6	192.0	264.0	629.1
Field Monitoring	75.7	30.2	23.5	24.0	153.4
Training	27.1	0.0	30.0	0.0	57.1
Workshop, Presentation, Review	71.0	67.6	84.9	71.5	294.9
Studies and Surveys	50.0	1,017.1	1,798.5	4,399.9	7,265.5
Total	388.4	1,162.5	2,139.9	4,759.4	8,450.0

Annex I – Summary of Indicator and Target Changes

Below is a summary of all indicator modifications to date. (Note: The addition of process milestones has been exempted from this section.)

Indicator Modification Form	
Date	July 2008
Project Objective	n/a (Goal level indicator)
Activity	n/a
Indicator	Household Benefits Generated from Program Interventions
Modification	Change in title and definition
Justification	Indicator has been modified to reflect both household savings and household incomes generated from Program interventions to better reflect the potential impact of Program activities

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	S-J Road Rehabilitation (S-JRR)
Indicator	Household Savings from Infrastructure Rehabilitation Activities
Modification	Modification of indicator and definition
Justification	This indicator has been changed from Financial Benefits Stemming from Infrastructure Project Investments to the indicator listed above, with a corresponding change in definition. Tracking the change in household savings is more appropriate, given the benefit streams of the ERR calculation

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	S-J Road Rehabilitation (S-JRR)
Indicator	Savings in Vehicle Operating Costs
Modification	Definition and unit modification
Justification	Previously, this indicator tracked a percent change in vehicle operating cost savings. Now, it will track actual dollar savings in VOC. This is more precise and more transparent in demonstrating the activity's benefits

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	Regional Infrastructure Development RID
Indicator	Savings in Household Expenditures for all RID Sub-projects
Modification	Addition of new indicator
Justification	Previously, the M&E Plan was not tracking key economic benefits to households. This indicator will quantify those

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	S-J Road Rehabilitation (S-JRR)
Indicator	International Roughness Index (IRI)
Modification	Addition of new indicator
Justification	This is a key indicator for measuring the outcome of a road project, as the IRI feeds into higher-level outcomes such as reduction in VOC

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	S-J Road Rehabilitation (S-JRR)
Indicator	Increase in Internal Regional Traffic Volumes
Modification	Retirement of indicator
Justification	This indicator was imprecise in terms of how it was defined, its parameters, and what exactly it was tracking in the way of traffic volumes. It will be replaced with a more precise traffic indicator.

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	S-J Road Rehabilitation (S-JRR)
Indicator	Annual Average Daily Traffic (AADT)
Modification	Addition of new indicator
Justification	This is a well-recognized, standard indicator for measuring road project outcomes. This will provide a clearly-defined method for tracking the increase in traffic on the S-J road, which will be a key driver of the ultimate economic impact of the activity.

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	S-J Road Rehabilitation (S-JRR)
Indicator	Travel Time
Modification	Modification of name and definition
Justification	This indicator, and its accompanying definition, has been modified from Reduction in Journey Time to Travel Time to provide a more precise name and definition to better convey the specific parameters of travel time measurement

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	S-J Road Rehabilitation (S-JRR)
Indicator	Road Paved/Completed
Modification	Addition of new indicator
Justification	This activity level indicator has been added to provide a clear output measure on progress of road construction

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	Main Gas Pipeline Rehabilitation
Indicator	Sites Rehabilitated
Modification	Addition of new indicator
Justification	This activity level indicator has been added to provide a clear measure on progress of the pipeline work

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	Main Gas Pipeline Rehabilitation
Indicator	Decreased Technical Losses
Modification	Retirement of Indicator
Justification	This indicator has been retired because GOGC has already achieved the five-year target due to factors exogenous to the MCC intervention, and there is now little value in collecting it

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	Main Gas Pipeline Rehabilitation
Indicator	Reduction in the Production of Greenhouse Gas Emissions Measured in Tons of CO2 Equivalent
Modification	Retirement of Indicator
Justification	The expected carbon facility, whose progress this indicator would have tracked, did not materialize. Consequently, it is neither possible nor relevant to collect this information

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	Main Gas Pipeline Rehabilitation
Indicator	Increased Collection Rate of GOGC
Modification	Retirement of Indicator
Justification	This indicator has been retired because GOGC has already achieved the five-year target due to factors exogenous to the MCC intervention, and there is now little value in collecting it

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	Regional Infrastructure Development (RID)
Indicator	Population Served by all RID Sub-projects
Modification	Name revision and target change
Justification	The name of this indicator has been changed slightly to make it more precise. In addition, the final target in Year 5 is being modified from 53,000 households to 265,964 people, reflecting the updated ERR and beneficiary analysis on all of the sub-

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	Regional Infrastructure Development (RID)
Indicator	Water Consumption
Modification	Addition of new indicator
Justification	Given that all of the RID sub-projects are related to water supply, this sector specific indicator has been added to better capture the activity's benefits based on the actual sub-project mix

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	Regional Infrastructure Development (RID)
Indicator	Actual Operations and Maintenance Expenditures
Modification	Retirement of Indicator
Justification	Given the current mix of RID Sub-projects, and their expected benefits, this indicator is no longer relevant or valuable

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	Regional Infrastructure Development (RID)
Indicator	Number of Hook-ups
Modification	Retirement of Indicator
Justification	This indicator was originally included when RID was anticipated to invest in local gasification projects. Since RID is not investing in any of this type project, this indicator is no longer relevant

Indicator Modification Form	
Date	July 2008
Project Objective	Key Regional Infrastructure Rehabilitated
Activity	Regional Infrastructure Development (RID)
Indicator	Reduction in Technical Losses
Modification	Retirement of Indicator
Justification	This indicator is no longer relevant given the current sub-project mix and their expected benefits

Indicator Modification Form	
Date	July 2008
Project Objective	Enterprises in the Regions Developed
Activity	n/a
Indicator	Aggregate Incremental Household Incomes and Business Revenues
Modification	Name revision and modification of definition
Justification	Combining of household net income with gross firm revenues was not giving an accurate financial picture at Objective Level. These two variables had been splitted in: household net income and Firm Income, therefore at Objective level remained just Household Net Income, as for the Firm Income, this variable is measured at Outcome level

Indicator Modification Form	
Date	July 2008
Project Objective	Enterprises in the Regions Developed
Activity	Georgia Regional Development Fund (GRDF)
Indicator	Increase in Number of Portfolio Company Employees and Local suppliers
Modification	Retirement of Indicator and addition of two split indicators
Justification	This aggregate indicator is being retired, and two separate indicators, each for employees and local suppliers, have been added

Indicator Modification Form	
Date	July 2008
Project Objective	Enterprises in the Regions Developed
Activity	Georgia Regional Development Fund (GRDF)
Indicator	Increase in Portfolio Companies' wages and Payments to Local Suppliers
Modification	Retirement of Indicator and addition of two split indicators
Justification	This aggregate indicator is being retired, and two separate indicators, each for wages to employees and payments to local suppliers, have been added

Indicator Modification Form	
Date	July 2008
Project Objective	Enterprises in the Regions Developed
Activity	Agribusiness Development Activity (ADA)
Indicator	Increase in Aggregate Incremental Net Revenue to Project Assisted Firms
Modification	Name and definition modification
Justification	Tracking of income taxes for the ADA funded firms had become unverifiable and the decision was made to track firm income before tax

Indicator Modification Form	
Date	July 2008
Project Objective	Enterprises in the Regions Developed
Activity	Agribusiness Development Activity (ADA)
Indicator	Direct Household Net Income for Market Information Initiative Beneficiaries
Modification	Retirement of Indicator
Justification	This indicator has proven impossible to collect with any accuracy

Indicator Modification Form	
Date	July 2008
Project Objective	Enterprises in the Regions Developed
Activity	Agribusiness Development Activity (ADA)
Indicator	Gross Sales of FSCs and VAs
Modification	Addition of new indicator
Justification	This indicator provides a relevant intermediate result to track progress on ADA, and so it is being added to the M&E Plan

Annex II – M&E Indicators

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Program Goal: Increased Economic Growth and Reduced Poverty in the Regions of Georgia					
Poverty Gap in the Samtskhe-Javakheti Region	The mean distance separating the population from the poverty line, defined by DS as the "subsistence minimum"	%	Integrated Household Survey	End of Compact	MCG in collaboration with the Department of Statistics
Poverty Incidence in the Samtskhe-Javakheti Region	The fraction of population under the poverty line, defined by DS as the "subsistence minimum"	%	Integrated Household Survey	End of Compact	MCG in collaboration with the Department of Statistics
Household Benefits Generated from Program Interventions	Aggregate cumulative household savings derived from RID and S-J Road Rehabilitation and household net incomes derived from ADA and GRDF	USD '000	Ex-Post data collections and ERR calculations	End of Compact	NORC and MCG
Project Objective: Key Regional Infrastructure Rehabilitated					
Household savings from Infrastructure Rehabilitation Activities	Aggregate cumulative savings in vehicle operating costs from S-J Road activity and savings in household utility expenditures from RID activity	USD '000	Aggregation made by MCG	Annually (PY4, PY5)	MCG

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Outcome: Improved Transport for Regional Trade and Access to Social Services					
Savings in Vehicle Operating Costs (VOC)	The VOCs are calculated from a composite of vehicle use costs prices (e.g., parts, wear and tear, fuel consumption, etc.) to obtain an overall cost per kilometer to the driver	USD '000	HDM-4 database	Annually (PY4, PY5)	MCG in collaboration with the Road Department
International Roughness Index (IRI)	IRI is a road-surface quality measure for road sections (height of bumps in meters per kilometer distance). The IRI though measured in meters/kilometers, can also be expressed as a dimensionless quantity (i.e., an index)	M/Km	Bump Integrator measurement	Annually (PY4, PY5)	MCG in collaboration with the Road Department
Annual Average Daily Traffic (AADT)	Average number of vehicle that transit the road each day	Vehicle '000	Traffic survey	Annually (PY4, PY5)	Private contractor
Travel Time	Travel time is the total amount of time it takes to drive the road from Partskhisi to Ninotsminda to the Armenia border and from Akhalkalaki to Sulda and is considered in terms of passenger-hours during working and non-working time, and cargo holding hours	Hour and minute	Travel time measurement	Annually (PY4, PY5)	Finnroad

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Activity/Process: Samtskhe-Javakheti Road Rehabilitation					
Construction Works Initiated	Initiation of construction works for Contract 1 and Contract 2	Date	Progress report	Once per contract	Finnroad
Construction Works Completed	Aggregate cumulative percent of works completed for Contract 1 and Contract 2 (Earthworks; Drainage; Pavement; Structures; Ancillary)	%	Progress report	Quarterly	Finnroad
Road Paved/Completed	Aggregate cumulative kilometers of asphalt paved road completed for Contract 1 and Contract 2	Km	Progress report	Quarterly	Finnroad
Outcome: Improved Reliability of Energy Supply					
Sites Rehabilitated	Cumulative number of Sites, where pipeline rehabilitation have been completed covering Phase I Phase II and Phase III	Number	Progress reports	Quarterly	GOGC
Activity/Process: Main Gas Pipeline Rehabilitation (Phase II)					
Contracts for Materials Signed	Cumulative number of contracts signed for purchasing of materials for rehabilitation of pipeline	Number	MCG legal records	Quarterly	MCG
Total Goods and Materials Delivered	Confirmation that the goods and materials considered by contracts has been delivered	Date	MCG acceptance documents	Once per contract	MCG

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Equipment Delivered	Confirmation that the equipment for GOGC has been delivered	Date	MCG acceptance documents	Once per contract	MCG
Construction Works RfP Published	Confirmation that the RfP for construction works has been published	Date	MCG procurement records	Once per contract	MCG
Construction Mobilization Completed	Confirmation that the mobilization activities for construction works has been completed	Date	Progress reports	Quarterly	GOGC
RAP Implementation Completed (through Negotiations and Payment of Compensation, and Land allocation)	Confirmation that the RAP Implementation has been completed	Date	Progress reports	Once per contract	GOGC
Construction Works Completed	Cumulative percent of works completed during the accounting period (including disaggregation by project sites)	%	Progress reports	Quarterly	GOGC
Land Restoration Activities Completed	Confirmation that the land restoration activities has been completed	Date	Progress reports	Once per site	GOGC

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Activity/Process: Main Gas Pipeline Rehabilitation (Phase III)					
Design Accepted	Confirmation that the design of phase III of pipeline rehabilitation activity has been accepted	Date	MCC no-objection	Once per Phase III	MCC/Jacobs
Contracts for Materials Signed	Cumulative number of contracts signed for purchasing of materials for rehabilitation of pipeline	Number	MCG legal records	Quarterly	MCG
Total Goods and Materials Delivered	Confirmation that the goods and materials considered by contracts has been delivered	Date	MCG acceptance documents	Once per contract	MCG
Construction Works RfP Published	Confirmation that the RfP for construction works has been published	Date	MCG procurement records	Once per contract	MCG
Construction Mobilization Completed	Confirmation that the mobilization activities for construction works has been completed	Date	Progress reports	Once per contract	GOGC
RAP Implementation Completed (through negotiations and payment of Compensation, and Land allocation)	Confirmation that the RAP Implementation has been completed	Date	Progress reports	Once per contract	GOGC

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Construction Works Completed	Cumulative percent of works completed during the accounting period (including disaggregation by project sites)	%	Progress reports	Quarterly	GOGC
Land Restoration Activities Completed	Confirmation that the land restoration activities has been completed	Date	Progress reports	Once per site	GOGC
Outcome: Improved Potable Water Supply					
Savings in Household Expenditures for all RID Sub-projects	Savings in household costs associated with the reduction of household utility costs, increased water quality and improved supply availability	USD '000	Ex-post data collection - survey	Annually (PY4, PY5)	RID Impact Evaluator
Population Served by all RID Sub-projects	Total number of population of cities: Poti, Kutaisi, Kobuleti, Borjomi and town Bakuriani, which will benefit from the improved potable water supply systems	Number	Sub-project completion report	Once per sub-project	MDF
Water Consumption	Average amount of liters of water consumed per capita, per day	Liter/cap.	Baseline and Final survey at the end of each sub-project	Twice per each sub-project	RID Impact Evaluator

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Activity/Process: Regional Infrastructure Development					
Board Memos Approved	Cumulative number of Board Memos includes Investment Memos, Feasibility Studies, Technical Design	Number	MCC no-objection/Board Meeting Minutes	Quarterly	MCG
Grant Agreements Signed With MDF	Cumulative number of grant agreements signed for Investment Projects, Feasibility Studies and Technical Design	Number	MCG legal documentation	Quarterly	MCG
Value of Grant Agreements Signed	Cumulative total value of grant agreements signed in accordance with multi-year financial plan. Includes: Feasibility Studies, engineering design, and 5 Investment Projects	USD '000	MCG legal documentation	Quarterly	MCG
EIA/Technical Designs Completed	Cumulative number of EIA/Technical Designs completed and approved by MCG/WB/EBRD	Number	MDF Environmentalists' Records	Quarterly	MDF Environmentalist
Tenders Announced	Cumulative number of international tenders announced by MDF procurement	Number	MDF Procurement	Quarterly	MDF
Works and Goods Contracts Signed	Cumulative number of Contracts for Works and Goods Signed by MDF/MCG	Number	MDF Procurement	Quarterly	MDF

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Value of Works and Goods Contracts Signed	Cumulative total Value of Works and Contracts signed by MDF with construction companies	USD `000	MDF Procurement	Quarterly	MDF
Sub-projects with Works Initiated	Cumulative number of investment projects, where mobilization was completed	Number	MDF Quarterly reports	Once per Contract	MDF
Funding Contribution from other Donors	Cumulative total value of contributions for co-financing	USD `000	MCG legal documentation	Quarterly	MCG
Funding Contribution from Government of Georgia	Cumulative total value of contributions for co-financing	USD `000	MCG legal documentation	Quarterly	MCG
RID Funding Contribution as a Share of Total Funding	RID Funding (MCC/MCG) as a percent of total sub-project funding, total and disaggregated by sub-projects	%	MDF Quarterly reports	Quarterly	MDF
Sub-projects Completed	Cumulative number of RID Sub-projects considers, completed construction or completed feasibility studies	Number	MDF Quarterly reports	Quarterly	MDF
Construction Works Completed	Cumulative percent of works completed during the accounting period	%	MDF Technical Department Field reports	Quarterly	MDF

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Project Objective: Enterprises in the Regions Developed					
Jobs created from Enterprise Development Activities	Aggregate cumulative jobs created by the Enterprise Development Activities – comprises of total number of additional jobs created by ADA grantees and additional number of employees at GRDF Portfolio Companies	Number	Aggregation made by MCG	Annually	MCG
Household Net Income	Aggregate cumulative increase in household net income earned by ADA Primary Producers, wage income earned by recipients of jobs created by ADA grantees (PP, VA, VCI, and FSC), and the wages paid by GRDF Portfolio Companies per GRDF Investment Policy Guidelines (IPG)	USD '000	Aggregation made by MCG	Annually	MCG
Outcome: Increased Investment in Small and Medium Enterprises					
Increase in Gross Revenues of Portfolio Companies (PCs)	Aggregate cumulative annual increase in gross revenues	USD '000	PC financials	Quarterly	SEAF
Increase in PC Employees	Aggregate cumulative increase in PC employees other than the Chief Executive Officer and any employee owning more than 10% of the equity of the Investee. Un-	Number	PC financials	Quarterly	SEAF

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
	der definition of the PC employees are considered any full or part-time employees that are official "employees" of the PCs working under employment contracts				
Increase in Local Suppliers to the PCs	Aggregate cumulative increase in local suppliers, which considers: individual entrepreneurs, registered firms or any residents of Georgia, that provide raw materials, inputs, equipment or any type of "locally-sourced" goods or services to the PCs as defined in the "Increase in Locally-Sourced Goods and Services" indicator definition	Number	PC financials	Quarterly	SEAF
Increase in Wages Paid to the PC Employees	Aggregate cumulative increase in wages as defined in IPG 5.2b: "All wages of any form combined with the cost of benefits for all employees of the Investee other than the chief executive officer and any employee owning more than 10% of the equity of the Investee." Taxes are excluded from the figure.	USD '000	PC financials	Quarterly	SEAF

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Increase in Locally Sourced Goods and Services Purchased by the PCs	Aggregate cumulative increase in "Locally-Sourced Goods and Services", as defined in IPG section 5.2d: "In the case of goods, as having at least 50% of the value of the goods purchased derived from production within Georgia and in case of services, as having 100% of services purchased provided by individuals resident in Georgia or entities within a Georgian presence"	USD '000	PC financials	Quarterly	SEAF
Activity/Process: Georgia Regional Development Fund					
Board Meetings	Cumulative number of the GRDF Board of Directors meetings	Number	GRDF Quarterly Reports	Quarterly	SEAF
Funds Committed to the PCs	Aggregate cumulative amount of funds committed to the PCs will be defined based on the value of Investment Contracts signed with the PCs	USD '000	GRDF Quarterly Reports	Quarterly	SEAF
Funds Disbursed to the PCs	Aggregate cumulative amount of funds disbursed for the investment to PCs	USD '000	GRDF Quarterly Reports	Quarterly	SEAF

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Debt Investments into PCs	Aggregate cumulative amount as defined according to definition of "Risk Capital" in IPG section 4. The indicator is defined as "debt with at least two of the three features listed under section 4.1a-c".	USD '000	SEAF Financials	Quarterly	SEAF
Equity Investments into PCs	Aggregate cumulative amount as defined according to the definition of "Risk Capital" in IPG section 4. The indicator is defined as "preferred or ordinary equity shares" For each PC, this will be the book value of equity invested in PCs.	USD '000	SEAF Financials	Quarterly	SEAF
Applicant Businesses	Under cumulative number of applicant businesses are considered those potential customers for the GRDF investments (according to the FMA), who submit a completed questionnaire or an equivalently complete business plan to SEAF	Number	SEAF Records	Quarterly	SEAF

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Portfolio Companies (PC)	Cumulative number of PCs, which are defined as Georgian small or medium enterprises meeting the requirements set forth in the IPG, in which the Fund Manager, on behalf of the Fund, makes an investment	Number	SEAF Records	Quarterly	SEAF
Businesses Receiving Technical Assistance (TA)	Cumulative number of businesses that have received or are receiving TA from the Fund Manager through the TA Facility. The indicator considers both PC's and non PC's	Number	SEAF Records	Quarterly	SEAF
Amount of Technical Assistance Provided by the TA Facility	Cumulative amount of TA Facility Funds disbursed from the Permitted Account for TA Projects (as defined in FMA). It considers both: TA funds used for the PC's and non-PC's	USD '000	SEAF Records	Quarterly	SEAF
Amount of Matching Contribution Provided by the Businesses for Receiving of Technical Assistance	Cumulative amount of matching contribution provided by the Portfolio and non-Portfolio companies for the receiving of TA	USD '000	SEAF Records	Quarterly	SEAF

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Outcome: Improved Economic Performance in Agribusinesses					
Jobs Created	Cumulative number of new jobs created by ADA grantees, including PPs, VAs, VCIs and FSCs	Number	Grantee reporting forms	Quarterly	CNFA
Household Net Income	Cumulative household net income earned by ADA Primary Producers, wage income earned by recipients of jobs created by ADA grantees (PP, VA, VCI, and FSC)	USD '000	Grantee reporting forms	Quarterly	CNFA
Firm Income	Cumulative amount of revenues received by: VAs, VCIs, and FSCs, to which are deducted all expenses before income tax	USD '000	Grantee reporting forms	Quarterly	CNFA
Beneficiaries	Cumulative number of beneficiaries (Direct and Indirect); includes: Direct Beneficiaries - number of direct grant recipients and new jobs created, plus indirect beneficiaries – clients for FSCs and suppliers of raw materials for VA/VCI	Number	Grantee reporting forms (direct beneficiaries) and ADA survey data (indirect beneficiaries)	Quarterly/Annually	CNFA/IPM
Activity/Process: Agribusiness Development Activity					
Selection Rounds Completed	Cumulative number of grant application selection rounds announced by the ADA Project	Number	CNFA reports	Quarterly	CNFA

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Grant Agreements Signed (PP)	Cumulative number of grant agreements signed by the ADA Project with the Primary Producers	Number	CNFA reports	Quarterly	CNFA
Grant Agreements Signed (VA)	Cumulative number of grant agreements signed by the ADA Project with the Value Adding Enterprises	Number	CNFA reports	Quarterly	CNFA
Grant Agreements Signed (VCI)	Cumulative number of grant agreements signed by the ADA Project with the Value Chain Enterprises	Number	CNFA reports	Quarterly	CNFA
Grant Agreements Signed (FSC)	Cumulative number of grant agreements signed by the ADA Project with the Farm Service Centers/Enterprises	Number	CNFA reports	Quarterly	CNFA
Total Value of Grant Agreements Signed	Cumulative total value of the signed grant agreements for all types of funded projects	USD '000	CNFA reports	Quarterly	CNFA
Amount of Grant Funds Disbursed	Cumulative amount of disbursed funds for the financing of the ADA projects	USD '000	CNFA reports	Quarterly	CNFA
Gross Sales of Agro-inputs and Services at Farm Service Centers	Cumulative amount of gross sales without deducting of any expenses or taxes generated by the FSC	USD '000	Grantee reporting forms	Quarterly	CNFA

Indicator	Definition	Unit of Measure	Data Source	Frequency of Reporting	Responsible Party
Gross Sales of Products at Value Adding Enterprises	Gross sales without deducting of any expenses or taxes generated by the VA Enterprise	USD '000	Grantee reporting forms	Quarterly	CNFA
Raw Material Suppliers to the Value Adding Enterprises	Cumulative number of farmers and entrepreneurs providing raw materials to the Value Adding Enterprises	Number	Grantee reporting forms	Quarterly	CNFA
Value of Raw Material Supplies Delivered to the Value Adding Enterprises	Cumulative value of raw materials delivered to the Value Adding Enterprises defines the value and type of the agricultural product, which are purchased by the VA enterprise from the local suppliers	USD '000	Grantee reporting forms	Quarterly	CNFA

Annex III – Baselines and Targets

Indicator	Unit	Baseline Year	Baseline Source	Base-line	PY1	PY2	PY3	PY4	PY5
Program Goal: Increased Economic Growth and Reduced Poverty in the Regions of Georgia									
Poverty Gap in the Samtskhe-Javakheti Region	%	2004	DS - Integrated Household Survey	20.7	n/a	n/a	n/a	n/a	19.9
Poverty incidence in the Samtskhe-Javakheti Region	%	2004	DS - Integrated Household Survey	55.9	n/a	n/a	n/a	n/a	50.0
Household Benefits Generated from Compact Interventions ⁵	USD '000	2007	Aggregation made by MCG	0	0	137	1,700	22,568	27,611
Project Objective: Key Regional Infrastructure Rehabilitated									
Household Savings from Infrastructure Rehabilitation Activities	USD '000	2008	Aggregation made by MCG	0	0	0	157	16,987	20,994
Outcome: Improved Transport for Regional Trade and Access to Social Services									
Savings in Vehicle Operating Costs (VOC)	USD '000	2008	ERR re-calculation	0	0	0	157	13,177	13,204
International Roughness Index (IRI)	M/Km	2006	Feasibility study	16.6	16.6	16.6	16.6	14.6	3.2
Annual Average Daily Traffic (AADT)	Vehicle '000	2008	ERR re-calculation	5.3	5.3	5.3	5.6	6.6	6.7

⁵ Indicator includes: VOC, HH expenditure savings from RID and HH income from GRDF and ADA (wages and net income generated by Primary Producers)

Indicator	Unit	Baseline Year	Baseline Source	Base-line	PY1	PY2	PY3	PY4	PY5
Travel Time	Hours and minutes	2008	WYG reports ⁶	5:33	5:33	5:33	4:33	3:03	2:45
Activity/Process: Samtskhe-Javakheti Road Rehabilitation (Contract I)									
Construction Works Initiated	Dates	March 2008	Construction works implementation plan	0	n/a	n/a	30 April 2008	n/a	n/a
Construction Works completed	%	March 2008	Construction works implementation plan	0	0	0	25.0	70.0	100.0
Earthworks completed	%	March 2008	Construction works implementation plan	0	0	0	60.0	90.0	100.0
Drainage completed	%	March 2008	Construction works implementation plan	0	0	0	40.0	80.0	100.0
Structures completed	%	March 2008	Construction works implementation plan	0	0	0	20.0	80.0	100.0
Ancillary works completed	%	March 2008	Construction works implementation plan	0	0	0	0	70.0	100.0

⁶ “Travel Time” indicator for the whole road has been averaged on the bases of travel times per road sections/subsections measured by WYG in October 2007 and provided in the WYG report “M&E Program and Methodology” (first draft in October 2007, Revised in July 2008) . As for the Travel Time projections for PY3, PY4 and PY5 there were made certain assumptions given in the WYG report dated 30 July 2008.

Indicator	Unit	Baseline Year	Baseline Source	Base-line	PY1	PY2	PY3	PY4	PY5
Road Paved/completed	Km	March 2008	Construction works implementation plan	0	0	0	0	83.6	119.5
Activity/Process: Samtskhe-Javakheti Road Rehabilitation (Contract II)									
Construction Works Initiated	Dates	May 2008	Construction works implementation plan	0	n/a	n/a	31 May 2008	n/a	n/a
Construction Works Completed	%	May 2008	Construction works implementation plan	0	0	0	20.0	65.0	100.0
Earthworks Completed	%	May 2008	Construction works implementation plan	0	0	0	55.0	85.0	100.0
Drainage Completed	%	May 2008	Construction works implementation plan	0	0	0	40.0	80.0	100.0
Structures Completed	%	May 2008	Construction works implementation plan	0	0	0	20.0	80.0	100.0
Ancillary works completed	%	May 2008	Construction works implementation plan	0	0	0	0	65.0	100.0
Road Paved/Completed	Km	May 2008	Construction works implementation plan	0	0	0	0	30.1	51.4

Indicator	Unit	Baseline Year	Baseline Source	Baseline	PY1	PY2	PY3	PY4	PY5
Outcome: Improved Reliability of Energy Supply									
Sites Rehabilitated	Number	2006	IEA between MCG and GOGC	0	0	6	15	23	23
Activity/Process: Main Gas Pipeline Rehabilitation (Phase II)									
Contracts for Materials Signed	number	2007	Pipes Supply Agreement & IEA (for TA)	0	0	1	2	2	2
Total Goods and Materials Delivered	Dates	2007	Pipes Supply Agreement	n/a	n/a	n/a	01 August 2008	n/a	n/a
The Equipment Delivered (TA component for GOGC)	Dates	2007	IEA between MCG and GOGC	n/a	n/a	n/a	31 December 2008	n/a	n/a
Construction Works RfP Published	Dates	2007	MCG bidding document	n/a	n/a	n/a	08 April 2008	n/a	n/a
Construction Mobilization Completed	Dates	2007	MCG bidding document	n/a	n/a	n/a	07 September 2008	n/a	n/a
RAP Implementation Completed (through negotiations and payment of compensation, and land allocation)	Dates	2007	IEA between MCG and GOGC	n/a	n/a	n/a	01 September 2008	n/a	n/a
Construction Works Completed	%	2007	MCG bidding document	0	0	0	100.0	100.0	100.0

Indicator	Unit	Baseline Year	Baseline Source	Baseline	PY1	PY2	PY3	PY4	PY5
Land Restoration Activities Completed	Dates	2007	MCG bidding document	n/a	n/a	n/a	31 March 2009	n/a	n/a
Activity/Process: Main Gas Pipeline Rehabilitation (Phase III)									
Design Accepted	Dates	2008	Project Execution Plan	n/a	n/a	n/a	31 October 2008	n/a	n/a
Contracts for Materials Signed	Number	2008	Pipes Supply Agreement	0	0	0	1	1	1
Total Goods and Materials Delivered	Dates	2008	Pipes Supply Agreement	n/a	n/a	n/a	n/a	01 May 2009	n/a
Construction Works RfP Published	Dates	2008	MCG bidding document	n/a	n/a	n/a	01 December 2008	n/a	n/a
Construction Mobilization Completed	Dates	2008	MCG bidding document	n/a	n/a	n/a	n/a	20 May 2009	n/a
RAP Implementation Completed (through negotiations and payment of Compensation, and land allocation)	Dates	2008	IEA between MCG and GOGC	n/a	n/a	n/a	n/a	30 April 2009	n/a
Construction Works Completed	%	2008	MCG bidding document	0	0	0	0	100%	100%
Land Restoration Activities Completed	Dates	2008	MCG bidding document	n/a	n/a	n/a	n/a	01 March 2010	n/a

Indicator	Unit	Baseline Year	Baseline Source	Base-line	PY1	PY2	PY3	PY4	PY5
Outcome: Improved Potable Water Supply									
Savings in Household Expenditures for all RID Sub-projects	USD '000	2006	Feasibility Studies	0	0	0	0	3,810	7,790
Population Served by all RID Sub-projects	Number	2006	Feasibility Studies	0	0	0	42,000	228,000	265,964
Water Consumption	Liter/cap.	2008	Baseline Survey	0	0	0	TBD ⁷	TBD	TBD
Activity/Process: Regional Infrastructure Development									
Board Memos Approved	Number	2006	IEA between MCG and MDF	0	0	6	8	8	8
Grant Agreements Signed With MDF	Number	2006	IEA between MCG and MDF	0	0	6	8	8	8
Value of Grant Agreements Signed	USD '000	2006	IEA between MCG and MDF	0	0	29,092	38,892	38,892	40,000
EIA/Technical Designs Completed	Number	2006	IEA between MCG and MDF	0	0	1	5	5	5
Tenders Announced	Number	2006	IEA between MCG and MDF	0	0	5	14	14	14
Works and Goods Contracts Signed	Number	2006	IEA between MCG and MDF	0	0	3	10	12	12
Value of Works and Goods Contracts Signed	USD '000	2006	IEA between MCG and MDF	0	0	5,500	28,800	37,400	37,400
Sub-projects with Works Initiated	Number	2006	IEA between MCG and MDF	0	0	1	4	5	5

⁷ Targets for this indicator will be determined after completion of baseline survey

Indicator	Unit	Baseline Year	Baseline Source	Base-line	PY1	PY2	PY3	PY4	PY5
Funding Contribution from other Donors	USD '000	2006	IEA between MCG and MDF	0	0	21,117	24,207	24,207	24,207
Funding Contribution from Govt. of Georgia	USD '000	2006	IEA between MCG and MDF	0	0	9,036	11,646	11,646	11,646
RID Funding Contribution as a Share of Total Funding	%	n/a	n/a	0	TBD	TBD	TBD	TBD	TBD
Sub-projects Completed	Number	2006	IEA between MCG and MDF	0	0	0	1	2	5
Construction Works Completed	%	2006	n/a	0	0	0	10.0	TBD ⁸	100.0
Project Objective: Enterprises in the Regions Developed									
Jobs Created from Enterprise Development Project	Number	2006	Aggregation made by MCG	0	0	674	2,043	3,700	4,342
Household Net Income	USD '000	2006	Aggregation made by MCG	0	0	137	1,543	5,581	6,617
Outcome: Increased Investment in Small and Medium Enterprises									
Increase in Gross Revenues of Portfolio Companies (PCs)	USD '000	2007	Activity Monitoring Plan	0	0	250	5,310	16,890	22,200
Increase in PC Employees	Number	2007	Activity Monitoring Plan	0	0	6	378	1,250	1,892
Increase in Local Suppliers to the PCs	Number	2007	Activity Monitoring Plan	0	0	5	501	2,007	2,508
Increase in Wages Paid to the PC Employees	USD '000	2007	Activity Monitoring Plan	0	0	22	623	2,495	3,118

⁸ Targets for this indicator will be determined on a rolling basis, and will be done on a project-by-project basis, due to the high variability among projects and the multiple procurement and construction schedules for each project.

Indicator	Unit	Baseline Year	Baseline Source	Base-line	PY1	PY2	PY3	PY4	PY5
Increase in Locally Sourced Goods and Services Purchased by the PCs	USD '000	2007	Activity Monitoring Plan	0	0	12	1,266	5,065	6,332
Activity/Process: Georgia Regional Development Fund									
Board Meetings	Number	2006	SEAF workplan	0	0	2	6	10	14
Funds Committed to the PCs	USD '000	2006	SEAF workplan	0	0	3,000	8,500	14,750	22,000
Funds Disbursed to the PCs	USD '000	2006	SEAF workplan	0	0	1,700	4,250	11,800	22,000
Debt Investments into PCs	USD '000	2007	Activity Monitoring Plan	0	0	2,750	6,800	11,250	15,750
Equity Investments into PCs	USD '000	2007	Activity Monitoring Plan	0	0	250	1,700	3,500	6,250
Applicant Businesses	Number	2007	Activity Monitoring Plan	0	10	40	120	160	220
Portfolio Companies (PC)	Number	2007	Activity Monitoring Plan	0	0	3	8	14	20
Businesses Receiving Technical Assistance(TA)	Number	2007	Activity Monitoring Plan	0	0	5	9	16	27
Amount of Technical Assistance Provided by the TA Facility	USD '000	2007	Activity Monitoring Plan	0	0	200	350	1,100	1,700
Amount of Matching Contribution Provided by the Businesses for Receiving of Technical Assistance	USD '000	2007	Activity Monitoring Plan	0	0	44	77	224	334

Indicator	Unit	Baseline Year	Baseline Source	Base-line	PY1	PY2	PY3	PY4	PY5
Outcome: Improved Economic Performance in Agribusinesses									
Jobs Created	Number	2007	Activity Monitoring Plan	0	0	668	1,665	2,450	2,450
Household Net Income	USD '000	2007	Activity Monitoring Plan	0	0	115	920	3,086	3,499
Firm Income	USD '000	2007	Activity Monitoring Plan	0	0	13	189	525	571
Beneficiaries (Direct and Indirect)	Number	2007	Activity Monitoring Plan	0	0	6,494	25,242	50,991	54,246
Activity/Process: Agribusiness Development Activity									
Selection Rounds Completed	Number	2006	CNFA workplan	0	3	6	9	9	9
Grant Agreements Signed (PP)	Number	2006	CNFA workplan	0	9	65	125	145	145
Grant Agreements Signed (VA)	Number	2006	CNFA workplan	0	0	8	16	18	18
Grant Agreements Signed (VCI)	Number	2006	CNFA workplan	0	0	10	33	41	41
Grant Agreements Signed (FSC)	Number	2006	CNFA workplan	0	3	13	26	30	30
Total Value of Grant Agreements Signed	USD '000	2006	CNFA workplan	0	379	3,743	8,702	11,300	11,300
Amount of Grant Funds Disbursed	USD '000	2006	CNFA workplan	0	114	1,497	4,786	7,345	11,300
Gross Sales of Agro-inputs and Services at Farm Service Centers	USD '000	2007	Activity Monitoring Plan	0	0	35	176	408	443
Gross Sales of Products at Value Adding Enterprises	USD '000	2007	Activity Monitoring Plan	0	0	18	108	253	273
Raw Material Suppliers to the Value Adding Enterprises	Number	2007	Activity Monitoring Plan	0	0	6	27	51	54
Value of Raw Material Supplies Delivered to the Value Adding Enterprises	USD '000	2007	Activity Monitoring Plan	0	0	11	65	152	164

Annex IV – Detailed Description of Impact Evaluations

ADA

Key Question

How does the provision of ADA grants to farmers and farm-related businesses impact household income and poverty levels, as well as create jobs?

Methodology

The impact evaluation will assess the program’s impact on increasing income, reducing poverty, and creating jobs for direct and indirect beneficiaries. The goal of the impact evaluation is to measure the net impact of the ADA activity – i.e., what happened with the program versus what would have happened if the Activity had not been implemented (also known as the “counterfactual”) – and to determine those results which can be reasonably attributed to the Program, rather than other factors. Most importantly, the evaluation will measure the difference in the change in income of direct beneficiaries, the “treatment” group (grantees and individuals who receive new jobs created by the grants), as compared to a statistically similar comparison group, the “control” group.

The following is a brief description of the particular evaluation methodology for each type of grant. Specific issues, such as selection procedures, data collection, etc., will be discussed in a later section.

Primary Producers: The Primary Producer (PP) component will be evaluated using an experimental design. This means that eligible PP grant applicants (those who receive a passing score) will be randomly selected from among the qualified pool to receive an actual grant (the “treatment” group). Those who are not selected will be put into a “control” group to compare against the treatment group. The performance of each group will be tracked for a period of time, and then members of the control group will be released (so they can be provided a grant) after the difference (if any) between the two groups is measured to determine the program’s net impact. The treatment group will demonstrate what happens as a result of the program, and the control group will represent the counterfactual, or what would have happened in the absence of the program. The evaluation will determine if there are any differences between the two that have statistical significance; if that is the case, those differences can be attributed to the ADA activity and its impact. This “pipeline” approach will both allow a randomized methodology to be used, while also not denying qualified applicants from ultimately receiving a grant, given that there are sufficient program resources to provide them with one.

This methodology will definitely apply to all PP applicants scoring between 70 and 85. If there are enough applicants scoring 86 and above to use this methodology, it will be applied to that group. If not, an alternative methodology using statistical modeling techniques will be used instead.

Value-Adders: The Value-Adder (VA) component will be evaluated using a quasi-experimental design that relies on statistical models, as there are not enough qualified applicants to make it possible to use random selection. CNFA will select applicants through the scoring process only, and those applicants will then be tracked against a “comparison” group during and after the life of the program. The evaluator will oversee the formulation of the comparison group, using statistical matching techniques. The measured difference between the two groups will be used to estimate the impact of this component.

Farm Service Centers: The Farm Service Center (FSC) component also will be evaluated using a quasi-experimental design that relies on statistical models. CNFA will select applicants through the scoring process only. Then, the impact of the FSC on the surrounding community will be tracked against a “comparison” group of similar communities during and after the life of the program. The evaluator will oversee the formulation of the comparison group, using statistical matching techniques. The measured difference between the two groups will be used to estimate the impact of this component at the community level.

Selection Procedures for Primary Producers

Selection rounds for Primary Producers will take place three times a year, on July 31, November 30, and March 31.

The following guidelines for random selection will be followed for each round, and will be applied to all qualified applications scoring between 70 and 85, and in cases where there are 6 or more qualifying applications scoring 86 and above.

- a. Following each round of scoring, all applicants who score between 70 and 85 will participate in the random selection process. The specific procedures for the process itself are codified in, “Policies and Procedures on Primary Producer Selection,” that is part of the ADA Operations Manual. Additional information for applicants about the procedure is documented in “Frequently Asked Questions – ADA Primary Producer Selection.”
- b. During each round, 50 % of the applicants will be selected through the above-mentioned process to receive a grant (and join the “treatment” group), and the other 50% will be included in the “control” group. These selection rates for each group are fixed.
- c. If there are more than 5 (i.e., at least 6) applicants in a given round, those applicants also will participate in the random selection process, according to the guidelines outlined above. If there are five or fewer, they will also receive grants.
- d. All eligible applicants scoring above 70 will not be allowed to re-apply until the final round of the program. If those applicants do decide to apply for the final

round, they will have to submit a new application and provide updated financial and other information.

e. These procedures will be applied consistently and thoroughly for every selection round during the life of the program, and are not subject to change without approval from both MCG and MCC.

S-J Road Rehabilitation

Key Question

How does the road rehabilitation effect/cause economic development, new businesses, and economic and social integration in the region?

Methodology

Geographic data that will be combined in a Geographic Information System (GIS) model and used to estimate measures of *accessibility* or travel time/cost for all potentially affected villages along the S-J road corridor. These data will include highly accurate digital spatial data on village geo-locations, road network locations and road quality, topography, and digital spatial physiographic data that could either affect transport cost or movement or influence economic productivity (land cover, locations and boundaries of protected areas, data on soil qualities and soil fertility, locations of lakes, rivers, and streams, etc.). Additional data will be collected through two surveys of villages along the S-J Road corridor, one using existing DS household data collection instruments. These data will be combined in the GIS and overlaid precisely through rectification to a common geographic projection system. Distance along existing road networks can then be calculated precisely, and travel times as well as travel costs estimated through statistical integration with the input digital data on physiographic conditions.

These measures of accessibility will provide an independent, objective measure of actual travel time (or, more importantly in terms of economics, travel *cost*) for each village to the road rehabilitation, and in turn this independent access measure will provide a powerful set of controls or weights in the subsequent impact evaluation using Propensity Score Matching (PSM) combined with double-differences. In essence, the access index value becomes the determinant of which communities are in the “treatment” group and which are in the “control” group for S-J road impact. However, because the access index is a continuous measure, the variance between “treatment” and “control” groups is also continuous, and thus a provides a more robust measure than a subjective binary division of treatment/control groups.

Combining the GIS calculation of access indices for Georgian villages with PSM and double-differences should provide a powerful and robust technique for evaluating economic impact of the S-J road rehabilitation. Combining PSM with

double-differences when comparing communities “before” and “after” S-J road construction would both remove the selection bias due to the observed differences between treated and comparison communities, and correct for possible bias due to the differences in time-invariant unobserved characteristics between the two groups. Crucially, using the GIS and the computed access indices will provide a powerful methodology for delineating “treatment” and “control” groups and gradations, in effect solving what is otherwise an extremely difficult barrier to conducting rigorous road impact evaluations. Furthermore, the same methodology will make it possible to control for positive economic impacts from other ongoing and planned road construction projects, elsewhere, that might also have an impact on the treatment villages (such as road improvements currently underway by the World Bank). Finally, the models combined with the extensive GIS database that will be built will allow for the prediction of economic impacts of potential *future* road or infrastructure improvements, which is likely to prove useful for the Georgian government beyond the life of this Program.