



ASSESSMENT OF FARM AND MACHINERY SERVICE CENTERS IN GEORGIA

FINAL

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ABSTRACT

Realization of the business acumen of managers of the newly created farm service center (FSC) and machinery service center (MSC) network and gaps in the supply and demand of agricultural inputs are of critical importance to the USAID-funded Economic Prosperity Initiative (EPI). Strengthening managerial skills and identification of interventions to close those gaps are within the scope of the program. The purpose of this report is to assess those factors and identify steps to rectify any shortcomings.

ABBREVIATIONS

EPI	Economic Prosperity Initiative
FSC	Farm Service Center
FSU	Former Soviet Union
HACCP	Hazard Analysis and Critical Control Point
MSC	Machinery Service Center
MCC	Millennium Challenge Corporation
USAID	United States Agency for International Development
GOG	Government of Georgia
CHS	Cenex Harvest States
AMP	Access to Mechanization Project
EBRD	European Bank for Reconstruction and Development
ISO	International Organization for Standardization

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I. EXECUTIVE SUMMARY

BACKGROUND

The success of the agricultural sector as it relates to the USAID Economic Prosperity Initiative (EPI) depends largely upon the quality, quantity, and accessibility of crop input supplies, including fertilizers, pesticides, seeds/seedlings, machinery, technology, and affordable credit for the commercial farmer. A key player in this arena is the network of 33 FSCs established in part through the assistance of the MCC program. Therefore, it was considered necessary to 1) assess the business acumen of the managers; 2) analyze the distribution system to determine if gaps existed in the supply and demand of agricultural inputs; and 3) determine the profitability and key accounting ratios of each FSC (if possible).

METHODOLOGY

Business Acumen- Twenty-three of the 33 FSCs' managers were interviewed. Questions were designed to evaluate the manager in terms of facility management, personnel, product knowledge, sales/marketing skills, emphasis on training of customers, knowledge of his competitors, financial strength of the enterprise, capacity to manage expansion or growth, and financial management skills. Strengths and weaknesses of individual managers were identified, as well as an assessment of the sustainability of his/her enterprise. Results of individual interviews are shown as an appendix to this document, as well as a table that ranks managers. This was a subjective ranking on the part of the consultant.

Gaps in the Supply and Demand for Agricultural Inputs- Through discussions with managers and others, a reasonably accurate understanding of the distribution system for seeds, pesticides, and fertilizers was gained. By having managers identify villages served within their trade territory, gaps in the distribution system could be mapped and clearly identified if they existed. Maps are shown in the attached region reports.

Gaps in the supply and demand of technology, machinery services, and access to affordable credit were analyzed based on discussion with Agro-Service Association personnel, managers of FSCs with machinery service, commercial farmers, and people from the banking industry. Gaps could then be explained in general terms.

Profitability and Key Accounting Ratios- A series of financial questions were asked to determine if the manager knew his financial performance, had an understanding of the profit and loss statement, as well as the balance sheet, understood key financial ratios to measure financial performance, or had a system that met International Accounting Standards. Sufficient information was gained to determine the sustainability of the enterprise and identify those financially strong organizations that might partner with EPI for a postharvest enterprise investment.

FINDINGS

Business Acumen- Fifteen of 23 managers were ranked as Good to Excellent though all but one had the ability to financially analyze their profit and loss statement and balance sheet. Some did not have access to their financial records. (Records were kept by parent company in Tbilisi.) Two managers were ranked as fair but their FSC may not be sustainable because of very poor clientele with no access to microfinance loans. Two managers were ranked as weak but their FSCs are probably sustainable, four managers were ranked as weak and their FSCs may not be sustainable without additional training, though the FSCs are not crucial to EPI objectives. Too many managers focused only on the bottom line and market share without recognizing the possibility of maximizing profits.

Gaps in the Supply and Demand of Fertilizer, Pesticides, and Seeds/Seedlings- The consultant found the distribution system for these products to be quite well developed. An array of National Distribution Companies located in Tbilisi import brand name pesticide and seed products from Europe or the USA and generic and lower quality from China, India, and Turkey. Product is distributed to FSCs and small shops in most every major town or city. Large-holder farmers often purchase product directly from the importer. Kiosk operators located in the central markets of cities, towns, and many villages purchase their products from the small shops or directly from distributors, repack them in small bags, and sell by the kilo or gram.

The commonly used ammonium nitrate fertilizer is manufactured locally and handled by all types of retailers. Some FSCs import ammonium nitrate from Kazakhstan and Ukraine when there is a price advantage. Complex fertilizers and foliates are imported from Ukraine and other European countries directly by the FSC or purchased from National Distributors. National Distributors own a number of FSCs.

The consultant found that there were no gaps in the supply and demand for the aforementioned products. In fact, in some areas, a lively competition exists between retailers. Many of the FSCs have established outlets and branches in nearby towns and villages to capture market share from an existing retailer.

Gaps in the Supply and Demand of Technology, Machinery Service, and Access to Affordable Credit- Unlike other retailers, the uniqueness of the FSC is to offer a full-service complement of goods and services to the commercial farmer. Other than goods, the prime focus is on technology, i.e., product information, training, soil testing, and demo plots. Some FSCs offer machinery services and some use credit as a marketing tool for reliable large-holder farmers. Most FSCs help small-holder farmers in the application process for loans from a microfinance institution.

However, the consultant found a general need exists to update the technology availability and delivery system. Not enough FSCs are taking advantage of the Agro-Service Association training resources. Only one well-designed demo plot with a good location was found during this assessment. Some FSCs own portable soil test kits but they are woefully inadequate to provide information needed for effective fertility recommendations.

There is a complete absence of market and pricing information.

Every FSC manager reported an unmet demand for machinery services. Conversations with various farmers verified this report. Every FSC manager with a machinery service component expressed a need for additional equipment to meet the demand. However, access to affordable-cost equipment loans do not exist which inhibits purchase of additional units.

A trickle-down system of supplier credit is working to some extent for the high-production commercial farmer. Pesticide and seed suppliers give short-term credit (three to six months) to good FSC customers. FSC managers then in turn grant credit for those products to commercial farmers who are creditworthy customers. One FSC takes farmers output as payment for crop inputs. Fertilizer purchases are on a cash-only basis.

In conclusion, the consultant found a country-wide gap in the supply and demand for technology, machinery services, and affordable credit. More serious gaps exist in the Ozurgeti, Guria Region (blueberries) and Zugdidi, Samegrelo Region (hazelnuts). Establishing FSCs in both cities could help close the technology gap.

Profitability and Key Accounting Ratios- Sufficient information could not be gathered to make a meaningful analysis.

Potential Partners for the EPI Program- Ten FSCs are financially able and eager to accelerate the expansion of their enterprises into post-harvest handling and storing of

farmers' produce. One FSC can invest in the construction of a modern greenhouse to demonstrate its feasibility to his customers. One commercial farmer growing strawberries appears financially strong enough to consider purchasing an in-field refrigeration system and a small cold storage facility to extend the life of his output.

RECOMMENDATIONS

- Increase the Agro-Service Association's training responsibilities by:
 - Engaging financial and marketing specialists from a U.S. agricultural products supply company to collaborate with Agro-Service to design, produce, and conduct a training program tailored to the Georgian FSC manager needs. *Sources within the U.S.-based Cenex Harvest States agricultural supply company may be available.*
 - Accelerating farmer in-field training by funding Agro-Service and the cooperating FSCs to design, establish, exhibit, evaluate, and publish results of demo plots strategically located in each region. Demo plots should exhibit the EPI target crops produced within the region but all EPI target crop categories should be exhibited at least once.
 - Holding regularly scheduled training courses for FSC managers and agronomists to continually upgrade their managerial and technical knowledge.
 - Proceeding with their plans to get pricing and marketing information out to FSCs. *Note of Caution: Do not make the initial system too grandiose.*
- Coordinate with the USAID-Access to Mechanization Project (AMP) implementer to examine ways to close the technology and machinery service gaps in the Guria and Samegrelo regions.
- Engage a Financial Consultant to assist the 11 identified FSCs and one commercial farmer in developing a bankable business and investment strategy for planned expansions. The proposed European Bank for Reconstruction and Development (EBRD) agribusiness funding program should be useful to leverage investment into these projects. The EPI program might consider a matching grant for an infrastructure project if it encompassed an entire value chain involving a large number of farmers.
- Explore the possibility of having a portion of the EBRD funding set aside for an affordable loan program for machinery purchases.
- Evaluate a leasing program if it is coupled with manufacturer financing.
- The gap in the supply and demand for affordable credit is likely to continue as a systemic problem hindering the recovery of Georgian agriculture.
- The first step in closing the gap in the farmers' access to affordable credit might be to study the origin of the Farm Credit System in the USA.

II. APPENDICES

- A. BACKGROUND**
- B. METHODOLOGY**
- C. FINDINGS**
- D. RECOMMENDATIONS**
- E. ADDITIONAL INFORMATION**

A. BACKGROUND

The success of the agricultural sector, as it relates to EPI, depends largely upon the quality, quantity, and accessibility of crop input supplies, including fertilizers, pesticides, seeds/seedlings, machinery, technology, and affordable credit for the commercial farmer. A dominant player in this arena is the network of 33 FSCs established in part through the assistance of the MCC program.

Unlike other retailers of agricultural supplies, the FSCs were designed to provide not only supplies but the facility contained a large conference room where commercial farmers gather for training purposes. Training sessions are conducted by the FSC agronomist, Agro-Service Association consultants, and/or suppliers of product.

Other services offered by some, not all, FSCs are soil testing, leaf analysis, on-farm consulting, home delivery, machinery service, assistance in the microfinance loan application process, and demonstration plots for in-field training purposes. Establishing demo plots was encouraged in the MCC program because it is a given that most farmers have to see the results of new agronomic practices before they will consider adopting them.

The purpose of the FSC program was an attempt to close the gaps in the agricultural input supply system. However, the full-service concept is a relatively new idea in Georgia and it takes a different breed of managers to operate this type of enterprise. Therefore, and with the advent of the EPI Program, it was considered necessary to 1) assess the business acumen of the managers; 2) analyze the distribution system to determine if gaps existed in the supply and demand of agricultural inputs; and 3) determine the profitability and key accounting ratios of each FSC (if possible).

A natural fall out from such an assessment is the identification of potential partners for the EPI. The type of investments being considered are cold storage, humidity-controlled warehousing, in-field refrigeration, controlled atmosphere cold storage, and greenhouses.

B. METHODOLOGY

An EPI assessment targeted five crops, i.e., hazelnuts, berries, fresh fruits, fresh vegetables and root crop vegetables. They were chosen because of their high value and increasing their production and distribution should have the biggest payoff, meeting EPI objectives. These crops are for the most part, region specific. Therefore, only FSCs within those regions were chosen for this assessment. The regions are Kakheti, Shida Kartli, Lower Kartli, Samtskhe, Imereti, Samegrelo, Guria, and Adjara.

Business Acumen- A two-hour interview with approximately 75 questions was conducted with 23 FSCs' managers. The interviews were staged in the conference room of the respective FSC followed by a tour of the facilities. Sometimes customers were interviewed as well as owners of the facility. Questions were designed to evaluate the manager in terms of facility management, personnel, product knowledge, sales/marketing skills, emphasis on training of customers, knowledge of his competitors, and financial strength of the enterprise, capacity to manage expansion or growth, and financial management skills. The list of questions is shown in the attachments. Strengths and weaknesses of individual managers were identified and tabulated, as well as an assessment of the sustainability of his/her enterprise. That assessment was based on an extrapolation of sales volume, margins, and expense load. A table is included in the attachments that make a ranking of the managers. For confidentiality reasons, the identity of the individual managers is not given. It must be understood that the ranking was a subjective process made by the consultant with extensive experience working with Farm Service Center managers in the USA and Former Soviet Union Republics. Also, attached is a table that gives the name of the FSC, the name of the person interviewed, and the date of the interview.

Gaps in the Supply and Demand for Agricultural Inputs- Through discussions with managers and others, a reasonably accurate understanding of the distribution system for seeds, pesticides, and fertilizers was gained. By having managers identify villages served within their trade territory, gaps, if they existed; in the distribution system could be mapped and clearly identified. Maps are attached.

Gaps in the supply and demand of technology, machinery services, and access to affordable credit were analyzed based on discussion with Agro-Service Association personnel, managers of FSCs with machinery service, commercial farmers, and people from the banking industry. Gaps could then be explained in general terms.

Profitability and Key Accounting Ratios- A series of financial questions were asked to determine if the manager knew his financial performance, had an understanding of the profit and loss statement as well as the balance sheet, understood key financial ratios to measure financial performance, or had a system that met International Accounting Standards.

C. FINDINGS

Business Acumen- Twelve of 23 managers were rated as excellent except for their inability to financially analyze their profit and loss statement and balance sheet. Some didn't have access to their financial records. (Records were kept by parent company in Tbilisi.) Three managers were rated as good except for their weaknesses to analyze financial performance, financial strength, or capacity to grow the FSC business. Two managers were rated as fair but their FSC may not be sustainable because of a very poor clientele who have no access to microfinance loans. Two managers were rated as weak but their FSCs are probably sustainable because of the personal financial strength of the owners or founders. Four managers were rated as weak and their FSCs may not be sustainable without additional training or a management change, though the FSC is not crucial to EPI objectives because of a lack of commercial farmers in the area. Too many managers focused only on market share subject to a positive bottom line. They may not recognize the possibilities of maximizing profits through good margin control.

Gaps in the Supply and Demand of Fertilizer, Pesticides, and Seeds/Seedlings- The consultant found the distribution system for these products to be quite well developed. An array of National Distribution Companies located in Tbilisi import brand name pesticide and seed products from Europe or the USA and generic and lower quality from China, India, and Turkey. Product is distributed to FSCs and small shops in most every major town, city, or sometimes villages. Large-holder farmers often purchase product directly from the importer. Kiosk operators located in the central markets of cities, towns, and many villages purchase their products from the small shops or directly from distributors, repack them in small bags, and sell by the kilo or gram.

The commonly used ammonium nitrate fertilizer is manufactured locally and handled by all types of retailers. Some FSCs import ammonium nitrate from Kazakhstan and Ukraine when there is a price advantage. The more complex fertilizers and foliates manufactured in Ukraine or other European countries are either imported directly by the FSC or purchased from National Distributor. A number of National Distributors have ownership in some FSCs enhancing the efficiency of their distribution system.

The consultant found no gaps in the supply and demand for the aforementioned products. In fact, in some areas, a lively competition exists between retailers. Many of the FSCs have established outlets and branches in nearby towns and villages to capture market share from an existing retailer.

Gaps in the Supply and Demand of Technology, Machinery Service, and Access to Affordable Credit- Unlike other retailers, the uniqueness of the FSC is to offer a full-service complement of goods and services to the commercial farmer. Other than goods, the prime focus is on technology, i.e., product information, training, consultation, soil testing, and demo plots. Some FSCs offer machinery services and some use credit as a marketing tool to capture the business from reliable large-holder farmers. Most FSCs help small-holder farmers in the application process for loans from a microfinance institution.

However, the consultant found a general need to update the technology availability and delivery system. Not enough FSCs are taking advantage of the Agro-Service Association training resources often enough. FSC agronomists as well as commercial farmers need constant updating on the technology changes in crop production. Only one well-designed demo plot with a good location was found during this assessment. Farmers need to see the results of good agronomic practices. Some FSCs own portable soil test kits but they are woefully inadequate to provide the information needed to make effective fertility recommendations. According to one manager, the soil analyses made by laboratories in Tbilisi are suspect.

As shown on the Samegrelo and Guria maps, no FSC (technology provider) exist in important areas. The farmers in those districts can find an adequate selection and supply of fertilizers, pesticides, and seeds, but not technology, machinery service, or access to affordable credit. Samegrelo is the highest producing district of hazelnuts, an EPI target crop. Ozurgeti district is located in a tea-producing area, a declining value crop. A substitute crop, blueberries, is being considered that will require the application of new technology not available in the area. Hazelnuts are also grown in this district and processed in a plant in Ozurgeti.

There is a complete absence of market and pricing information though it is understood that Agro-Service has applied for funding to develop a system that will link FSCs to market information. This will not only provide a valuable service to farmers but it will make the link between the farmer and FCS even stronger.

Every FSC manager reported an un-met demand for machinery services. FSC managers with a machinery service component expressed a need for additional equipment to meet the demand. Access to an affordable-cost equipment loan does not exist which inhibits purchase of additional units. Too many managers of FSC with a machinery component expressed serious doubt whether machinery service was a sustainable stand-alone business. However, every manager interviewed where the FSC had a machinery component reported a substantial increase in product sales as a result.

To some extent, a trickle-down system of supplier credit is working for the high-production commercial farmer. Because of higher margins pesticide and seed suppliers give short-term credit (three to six months) to good FSC customers. FSC managers then in turn grant the same credit terms for those products to commercial farmers who are credit-worthy customers. One FSC takes farmers output as payment for crop inputs.

In summary, the consultant found a country-wide gap in the supply and demand for technology, machinery services, and affordable credit. More serious gaps exist in the Ozurgeti, Guria Region (blueberries/hazelnuts) and Zugdidi, Samegrelo Region (hazelnuts). FSCs in each city would help close those gaps.

Profitability and Key Accounting Ratios- Sufficient information could not be gathered to make a meaningful analysis. Though it is obvious many of the FSC were profitable, managers were reluctant to divulge detailed information. Some managers did not know the profitability of his enterprise because the financial records were kept in Tbilisi, the parent company of the FSC. Access to those records was requested but was denied. Some managers didn't know their product margin structure and some made wild guesses to the consultant. Only one manager divulged his employee expense expressed as a percent of gross margin and profit as a percent of sales ratios. The former ratio was probably correct, but the latter was not possible, unless he was receiving unusually high margins for all of his product sales. Many managers did not understand the term, working capital, let alone know how to calculate it.

Potential Investors in Output Marketing- Ten FSCs are financially able and eager to accelerate the expansion of their enterprises into post-harvest handling and storing of farmers' produce. Those include Gurjaani, Telavi, Kvareli, Lagodekhi, Bolnisi, Gori, Adjara, Vani, Terjola, and Aspindza. One FSC, Geguti, could invest in the construction of a modern greenhouse to demonstrate its feasibility to his customers. He could use some technical assistance to gain GlobalGAP, Hazard Analysis and Critical Control Point (HACCP), International Organization for Standardization (ISO) certification, as well as organizing an association of producers of dill which Geguti processes and exports. One commercial farmer, Edvard Shermadini in the Karteli district, growing strawberries, apples, and tomatoes for the Tbilisi market appears financially strong enough to consider investment in an in-field refrigeration system and a small cold storage facility so as to extend the shelf life of his output. He can be reached by e-mail at edvard.shermadini@gmail.com.

D. RECOMMENDATIONS

- Increase the Agro-Service Association's training responsibilities by:
 - Engaging financial specialist from a U.S. agricultural products supply company to collaborate with Agro-Service to design, produce, and conduct a training program tailored to the Georgian FSC manager needs. Source within the U.S.-based CHS agricultural supply company may be available. The training should help the manager understand the balance sheet and profit and loss statement and their interrelationship, calculate work capital, compute key financial ratios, e.g. employee expense as a percent of gross margins and profitability as a percent of sales, understand the quality of accounts receivable by aging, understand various ownership ratios, and compute the various return ratios.
 - Engaging a marketing/sales specialist from a U.S. agricultural products supply company to collaborate with Agro-Service to design, produce, and conduct a training program tailored to the Georgian FSC manager needs. Source with the U.S.-based CHS agricultural supply company may be available. The training should help the manager define an effective marketing/sales strategy, understand the distribution system as it relates to market area, train employees in good sales techniques, exploit the image and value of the FSC system to gain quality market share, etc.
 - Accelerating farmer training by coordinating a country-wide effort to establish more in-field training opportunities for Georgian farmers. Agro-Service should work with cooperating FSCs to design, establish, exhibit, evaluate, and publish results of demo plots strategically located in each region. Demo plots should exhibit the EPI target crops produced within the region but all EPI target crop categories should be exhibited at least once.
 - Stepping up the frequency of scheduled training courses for FSC managers and agronomists to continually upgrade their managerial and technical knowledge.
 - Proceeding with their plans to get pricing and marketing information out to FSCs. Note of caution: Don't make the initial system too grandiose.
- Coordinate with the USAID-AMP implementer to examine ways to close the technology and machinery service gaps in the Guria and Samegrelo regions. A hazelnut producer interviewed at the Khobi FSC indicated that he had a 100+ square meter shop in the center of Zugdidi city that was empty and could be used as a FSC. His contacts are Bajan Kukaba, 599144507.
- Engage a Financial Consultant to assist the eleven identified FSCs and one commercial farmer in developing bankable business plans and investment strategies for planned expansions. The proposed EBRD agribusiness funding program should be useful to leverage investment into these projects.
- Explore the possibility of having a portion of the EBRD funding set aside for an affordable loan program for machinery purchases or consider a leasing scheme coupled with manufacturer financing.
- To assure sustainability of the machinery service providers, encourage the GOG to place machinery in FSCs instead of stand-alone enterprises.
- The first step in closing the gap in the farmers' access to affordable credit might be to study the origin of the Farm Credit System in the USA. In the early 1930's, U.S. farmers faced the identical problem accessing affordable credit as the Georgian farmers do today.

E. ADDITIONAL INFORMATION

REGION MAPS

The attached maps show the approximate market area of each FSC based on the location of the villages reportedly served by enterprise. An approximation of the market areas were made for those FSC managers not interviewed. Notice that market areas tend to encompass major highways or roads.

The areas not served by the FSC do not necessarily represent a gap in the supply and demand of all agriculture inputs for commercial farmers of interest to the EPI program. Consultant found that all commercial farmers of interest had access to fertilizer, pesticides, and seed. However, there is a general country-wide gap for the supply and demand for technology, machinery service, and affordable credit. There is a more serious gap in the Zugdidi district of Samegralo region and Ozergeti district of the Guria region. Both areas should be of interest for the EPI program. Neither location has a FSC which could close some of the technology gap.

REGION REPORTS

The following provides a summation of the individual consultant-manager interviews conducted in the applicable region. A summation in the form of key observations, conclusions, and recommendations made by the consultant follow. Many are redundant for each region and are not repeated except the ones that are unique to the region.

KAKHETI REGION

As this was one of the first groups to be interviewed, the questions were updated frequently to make them simpler and more straightforward to enable good translations. Some of the observations given below cannot be gleaned from these questions. They were determined by touring the facility or demo plot, interviewing farmers, stopping at village bazaars to look for other sources of crop inputs, and follow-up conversations with managers and employees after the interview.

Business Acumen

A reasonably good assessment can be made by judging the following attributes: appearance and organization of the shop, qualifications of the staff, product line and services appropriateness for the target customer, knowledge of the product line, marketing/sales skills, financial management skills, knowledge of competition, management focus (are there distractions?), and awareness of his customers' needs beyond the scope of the enterprise.

Five of the eight FSC/MSCs' managers were interviewed, i.e., Gurjaani, Telavi, Kvareli, Lagodekhi, and Sagerago. (Because of time constraints, two FSC/MSCs at Tsnori and one FSC at Dedoplistskaro were not examined and were not part of this analysis though some extrapolation was made to approximate their market areas, shown on the attached maps. Four of the five managers interviewed represented FSCs which also provided machinery services for their customers and three of those five received machinery through the AMP program. (Those FSCs which offer machinery services are referred to as FSC/MSC.) Approximately 75 questions were asked of each manager and most were answered except for some of those dealing with financial information. A template for interviews is provided at the end of this report. Following are the applicable key observations, conclusions, and recommendations made from those interviews, facility reviews, and follow-on conversations.

Key observations

- All shops were well maintained, had a professional look to them, were stocked with fertilizer, pesticides, seed (some with veterinarian products), and miscellaneous sprayers, hand tools, and hardware. The storage areas were kept orderly. All had some business traffic.
- Each shop was organized well, inventory was sorted properly, e.g., veterinarian supplies were not mixed with pesticides, and there appeared to be no shortage of high-quality products.
- One FSC stocked and distributed cheaper generic products along with an assortment of “brand-name” products, targeting any customer that was available.
- All companies sell quality seed but none sells seedlings though two thought there was a significant demand for vegetable seedlings.
- Every manager was fully knowledgeable on the technical aspects of their products and services.
- All managers have a trained agronomist on staff (a veterinarian, if products for livestock are offered) who receive training from suppliers. Farmers receive support from the agronomist as well as training from suppliers, especially when new products are introduced. Two of the FSCs had portable soil test kits.
- Only two of the managers claimed to have membership in or received support from the Agro-Service Association, a source of employee training. One company, Noblex, who owns both Kwarteli and Gurjaani FSC/MSCs train all of their technical personnel who interface with farmers in southern Ukraine. Another manager opined that there was not a need for the Association.
- Four of the five managers identified the FSC/MSCs’ target market as the professional, commercial farmer who shops for crop and livestock inputs and machinery services on the basis of value rather than price alone.
- All managers could draw out their market area on the map provided and described an aggressive effort to reach the identified customer, including establishing retail outlets in key villages and providing product delivery service.
- Each manager could readily describe his sales and marketing strategy.
- One FSC/MSC provided a card, similar to a credit card that was issued to all customers. It was a frequent-buyer program which tracked all of the customers’ purchases and after a certain GEL level, he/she was rewarded with cash discounts or free products.
- All managers used credit as a marketing tool, some more aggressively than others, especially when they received credit terms from their suppliers. Probably all used credit to garner the business of larger customers or retail stores that they have a business relationship.
- All managers facilitate banking services for smallholder farmers to access microfinance programs for the purpose of purchasing products and services from the FSC/MSC.
- None of the managers extended credit terms to peasant farmers.
- Managers use machinery services as a strong sales tool for crop inputs obtaining better margins than sold outright. Much of the fertilizer is sold through the planting and cultivating operations. Much of the pesticides are sold through the spraying service.
- Though there is a huge demand for machinery services, it may not be a sustainable stand-alone business according to two managers. Too many managers indicated that it was used more of a sales tool rather than a profit center.

- Only the manager who distributes fertilizers to other FSC/MSCs appears to make any acceptable margin on the commonly used ammonium nitrate. Retail margins are very low (3-5%) due to the competition from many retailers that easily procure the product which is manufactured locally.
- Managers can and do gain acceptable margins from the various ratios of N-P-K and foliate fertilizers, especially if it is applied by the FSC/MSCs. Side-dressed ammonium nitrate during the cultivation process garner improved margins.
- Pesticides (crop protection products) represent approximately 80% of the FSC/MSC crop input sales and profit and the managers' focus are on those products.
- All FSC/MSCs have technical brochures and pamphlets which provides farmers directions (in Georgian language) on the safe and proper use of the product. They are widely distributed to area farmers during training sessions in the conference room.
- All managers were aware of GlobalGAP, but one owner expressed his knowledge by the comments "who needs GlobalGAP? we are far from the need for that regimen!"
- All managers described their competition as small retailers (bazaar-located kiosks) targeting the peasant farmer with low-cost generic products imported from China, India, and Turkey. One manager is a distributor of those products along with higher quality Western-manufactured ones. These kiosks also stock ammonium nitrate, repackage in small bags as well as pesticides and sells reasonably good margins.
- All but one manager either have farms of their own or have demo plots that also are commercially driven.
- Only one of managers gave me reliable financial information and all five seemed unaware of measuring financial performance, such as employee financial productivity, profitability as a percent of sales, available working capital, gross margin percentages achieved for each major product, ageing of accounts receivable, accruing for bad debt, and profit or loss from machinery services. They were unaware if depreciation schedules for machinery were kept and if depreciation was included in the pricing of the service though they thought it was.
- All managers claimed their accountants use International Accounting Standards though two of them had their financial records kept by their head distribution office in Tbilisi.
- Only one manager assisted the farmer in the marketing of crop outputs and that was grain. Two others expressed interest in assisting the commercial farmer with his/hers post-harvest handling, storage, and marketing operations.
- The manager of the Noblex FSC/MSC in Kvareli opined that the winery/vineyard business is in crisis and modernization will have to occur soon or it could collapse completely. There are six to seven wineries in the Kvareli district, which might represent an EPI intervention.
- The owner/manager of the Telavi FSC/MSC reported that a minimum of 500 hectares of vineyards have been uprooted during the past five years and replaced with hazelnut orchards which could represent an opportunity for an EPI intervention.

Conclusions

- The FSC/MSCs in the Kakheti region are operated by aggressive managers, are profitable, growing, and sustainable.
- They know their products, know their customers, target the right customers, and use credit sparingly for the most part as a marketing tool to garner the sales from reliable large holders.

- They are aware of what is happening to their customer base and in their agricultural communities.
- They focus on the major profit center, crop protection products.
- They all appear to be excellent operations managers though their financial interest is only on the bottom line, not quite knowing how they got there but that they are gaining market share. Some have their financial records kept in Tbilisi by their partner-distributor.
- They employ qualified personnel and promote training programs for area farmers but only one had a well-designed demonstration plot in a good location though a few had demo plots with one crop only.
- Managers and accountants could benefit from financial management training commonly used to train FSC managers in the USA.
- All but one have land under production of their own which makes them aware of the problems farmers have in marketing their produce.
- Given these FSC/MSCs' financial strength and management ability the FSC/MSCs are logical entities to assist farmers in their post-harvest handling, storage, and marketing efforts.
- Four managers expressed interest in the EPI Program and the assistance it may give in helping farmers with their post-harvest handling storage, and marketing efforts.

Recommendations

- Field consultants with experience teaching managers of FSCs about analyzing the profit and loss statement and understanding the balance sheet. By working with an Agro-Service Association consultant, develop an appropriate training program for Georgian FSC managers. *A resource from CHS might be available.*
- Look to the FSC/MSCs of Gurjaani, Kvareli, Tevali, and Logadekhi as potential investors in cold-chain warehousing, packinghouses, etc.
- Consider the Telavi area for a hazelnut EPI intervention and the winery industry in the Kvareli district for an EPI intervention.

Gaps in the Supply and Demand of Agricultural Inputs

The managers of the FSC/MSCs were asked a number of questions which answers could be extrapolated to gain an insight into any gaps that may be evident in the supply and demand of agricultural inputs. Following is a set of observations, conclusions, and recommendations derived from the answers to those questions.

Key observations

- Though some new land is being brought into production through the new USAID AMP, modern machinery service remains in drastic shortage in the Kakheti region.
- Interest rates are far too high for farmers to purchase sorely needed equipment.
- Farmers who use the modern machinery techniques provided by the FSC/MSC are rewarded with an increase in yield that more than pays for the service.
- Proper soil preparation, planting, cultivating, crop protection application, and harvesting are necessary for profitable farming. Existing old equipment is not able to provide the proper operations.
- Demo plots, especially designed to show farmers benefits of modern technology, are very well attended, however, only one plot was of acceptable design, size, and location.

- As shown on the attached map of the region, the vast majority of farmers is or can be served through the FSC/MSC system being delivered quality products of fertilizer, pesticides, and seeds.
- There appears to be an absence of a supply of seedlings, but this may not be a critical issue because many households grow their own seedlings.
- Noblex is considering establishing a warehouse for root crop storage and/or a greenhouse to produce vegetable and melon seedlings. Either could represent EPI intervention, however, they are planning it in another region.
- The FSC/MSCs' managers appropriately target the large commercially driven producer, one of the most important players for the EPI project.
- Crop and livestock extension services are provided through the FSC/MSC system, similar to the system used by Western growers a few years ago. However, there is a place for the Agro-Service Association to provide supplementary training.
- High-cost credit is available to peasant farmers through microfinance programs but some of the larger farmers are receiving goods on credit whose source is the credit provided by the supplier to the FSC/MSCs (trickle-down credit). This is not uncommon in the pesticide and seed industries where margins are good as well as stable.
- Peasant farmers have access to low-cost generic products, though low quality, are affordable.
- Large farmers with significant parcels of land do not have a reliable soil test service. The portable soil test kit only renders qualitative data. The modern farmer needs quantitative data to design an appropriate soil fertility program.
- Some farmers send their soil samples to laboratory in Tbilisi for testing but one manager reported bad test results from the Tbilisi lab and sends his samples to a lab in Ukraine.

Conclusions

- The overwhelming majority of farmers lack adequate access to modern machinery for soil preparation, planting, cultivation, and harvesting.
- Many large-holder farmers have access to credit through the supply system, i.e., retailers passing on credit privileges from supplier to the client at the risk of the FSC/MSC.
- Peasant farmers only have access to high-cost credit through a microfinance program.
- FSC/MSCs facilitate the credit access for peasant farmers by providing space for microfinance bank reps to meet with potential farmer clients.
- All sizes of farmers have reasonably good access to purchasing crop and livestock inputs.
- Shown on the Kakheti map all major agricultural areas are covered by the existing FSC/MSC network.
- Farmers do lack access to good post-harvest handling, storage, and marketing systems or facilities.
- Farmers still lack access to good training. The FSC/MSCs have facilities and access to resource but they are not doing enough training.
- There are not enough demo plots in the area to train and show farmers what results are possible with modern techniques.
- Large farmers need access to quantitative soil testing if they are to design an appropriate soil fertility program.

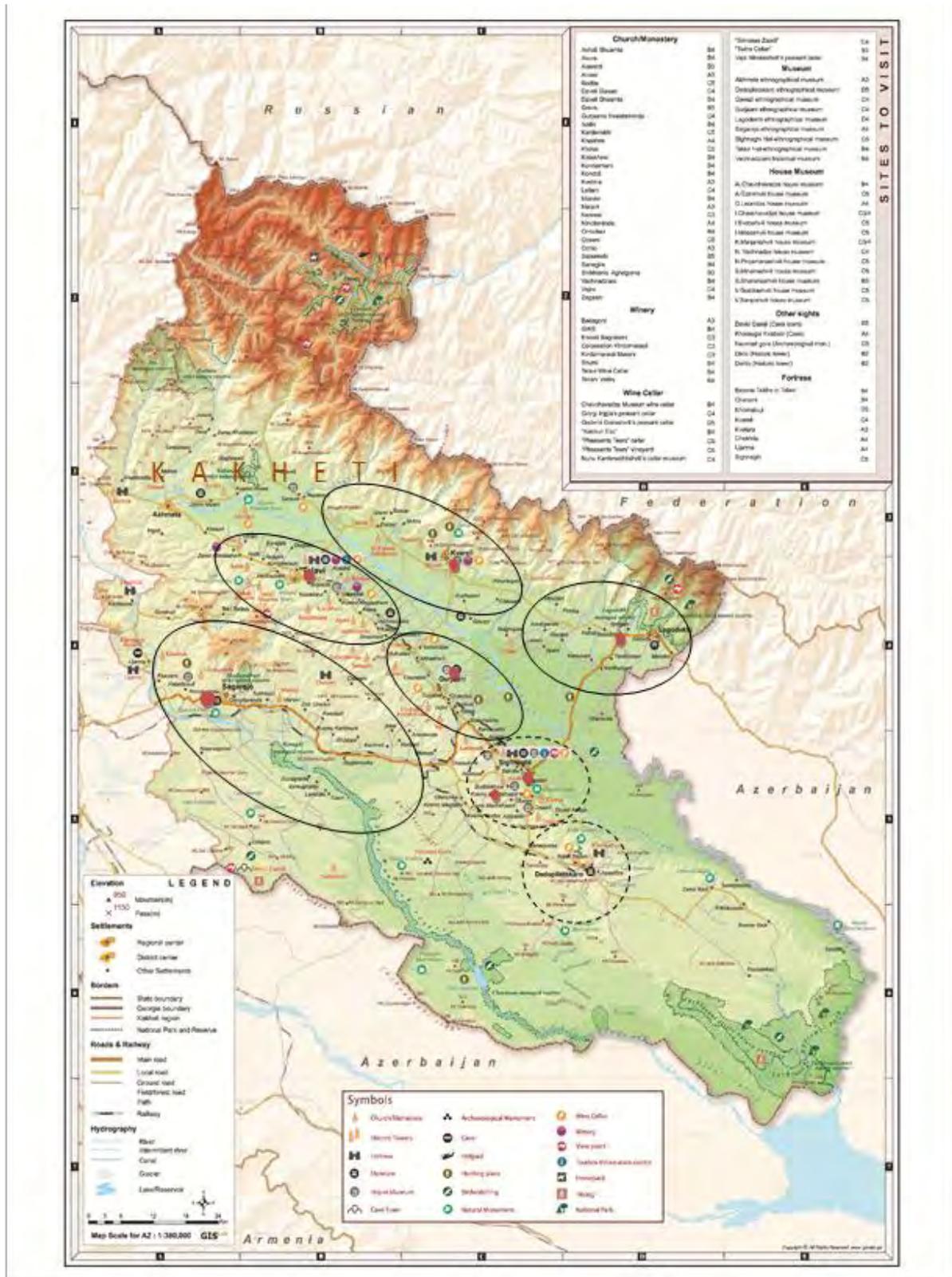
Recommendations

- Affordable credit is one of the keys to the recovery of Georgian agriculture. Much like the USA in the early part of the 20th century when interest rates for farmers were unaffordable or inaccessible, the USG established a Farm Credit System with a substantial loan guarantee driving down the cost of credit, as well as providing access. Donors will have to develop creative credit schemes which will deliver low or affordable credit to Georgian producers if the farmers are to recover and compete on the world or even the domestic market. Study the credit program for farmers in Poland and how it impacted Polish agriculture. To expect Georgian farmers to compete with subsidized farmers in the West with low interest rates is unreasonable. Credit programs could be designed by selecting the most marketable of the EPI target crops. For example, a low-cost credit program for hazelnut producers or greenhouse operators who embrace new technology and have ready markets for their product; or a similar program but long-term loans for establishing orchards or vineyards. Target the credit programs where the risk of the market is lowest.
- Though the machinery being provided by the USAID-AMP is a great benefit, it is not nearly enough to supply the needs, which will make a measurable impact on the prosperity of Georgian farmers.
- Three recommendations, first, always place the machinery services along the side of a FSC as has been done in this region. Machinery rings in this consultant's view is suspect when it comes to sustainability. Second, offer an affordable interest loan program for larger producers to purchase their own machinery. Third, influence the GOG to give FSCs preference for the placement of new equipment.
- Training is another important key to the recovery of Georgian agriculture. Even the larger farmers do not realize the cost/benefit of applying modern fertilizer and pesticide programs and planting improved hybrid seeds. The Agro-Service Association has a much bigger role to play in this arena than they have in the past. Training should become a major marketing tool for FSC/MSCs and Agro-Service Association personnel are strategically positioned to assist in a major way but they must be aggressive in their efforts to assist. The goal would be to have a farmer-training session in each FSC/MSC monthly at a minimum. FSC/MSCs can invite their preferred customers.
- Demo plots are a key training tool not used adequately. This is an opportunity for the Agro-Service Association. They should be funded to develop, design, and maintain several demo plots in the various regions demonstrating the appropriate crops which are targeted by the EPI program. This can be done with a cooperating FSC/MSC. Positioning the association in this role could enhance its sustainability.
- Consider developing bankable business plans and investment strategies for projects with Gurjaani, Lagodekhi, Tevali, and Kvareli FSC/MSCs to provide post-harvest handling, storage, and marketing assistance to their area farmers producing EPI target crops.
- Consider developing a modern soil testing system for Georgia.

Financial Ratios

The information that the author was able to elicit from the managers was deemed too unreliable to make any broad assumptions, conclusions, or recommendations. All managers with the exception of two were very reluctant to even discuss financial performance in any meaningful way. The two that did only gave vague or approximate information, nothing on which to base an analysis. All, except possibly one, really did not understand how to analyze the financial performance of their company. All they seemed to be confident of was the company was growing in sales with an apparent positive bottom line. All of these managers could benefit from a tailored financial management training program. The CHS INC has a

training module that might be modified (simplified) and translated into Georgian and delivered by an experienced trainer. The author may be able to identify the appropriate person.



IMERETI REGION

This west central region is the heart of the fruits/vegetable production sector with one area south of Kutaisi, the center of the greenhouse industry. Kutaisi, the capital city of the region marks the inner boundary of subtropical Georgia. Seven out of the eight FSCs' managers were interviewed. These managers represented FSCs at Chiatura, Sachkhere, Zestponi, Terjola, Geguti, Vani, and Sajavakho. Terjola and Sajavakho could be classed as FSC/MSCs though the latter only had one tractor and that was furnished through the GOG. The Kvitiri FSC manager was not interviewed due to time constraints though it serves producers in the same market area as Geguti and Vani FSCs. The map of the region shown in the attachments illustrates the broad coverage of the FSC network. The map also shows that three FSC managers are attempting to compete in the same market areas. Again, not all information described below can be gleaned from the interview questions/answers. Continued in-depth discussions and the author's personal observations made up a part of the interview results.

Business Acumen

Managers were judged similar to how they were judged in the preceding section except they could not explain their marketing/sales strategy without the consultant leading them through it.

Key observations

- Though the stores were well organized, they were not as well stocked with product as the stores in Kakheti. This probably is to be expected because only one of these FSCs is a distributor similar to the Kakheti FSCs.
- All of the stores handled some low-cost generic product sourced from China, India, Turkey, or Bulgaria indicating the peasant farmer as one of the target markets.
- All stores had some veterinarian products and some brand-name pesticides and seeds, some more than others.
- In most stores, larger packs of pesticides and fertilizers were broken down into smaller packs or weighed out by the gram into the customers' container to fit the need of the customer. That was a way to compete with the bazaar kiosks that use the same practice to furnish the needs of the smallholder farmer or gardener.
- One manager did not have an acceptable knowledge of his product line.
- All but one of the managers stumbled over the question about what their overall sales/marketing strategy was; the consultant had to lead them through it.
- Six managers focused on their target customer, the peasant farmer. One manager focused on greenhouse customers handling an array of drip irrigation equipment, fittings, and general hardware.
- One manager focused on his outside business (greenhouses and dill production/exporting) more than his FSC. However, his FSC is probably sustainable because the manager is a competent business man.
- Only two managers are aggressively building market share, having multiple outlets, some in the same trade territory as other less aggressive FSC managers.
- One FSC was established through a grant to a private person who then leased the building to Agro-Georgia, a distributor of crop/livestock input supplies. The manager is not focused on building an effective FSC.
- The staffs are indicative of the managers, i.e., if the manager is aggressive and knowledgeable, the staff personnel are similar.

- The manager who has the MSC gives credit liberally for machinery services, with payment at harvest time. The other manager with a tractor does the same. The former doubts that his machinery services will be profitable because of the potential bad debt.
- One manager gave credit liberally and took product (dill) in payment. That same manager stationed a Credo Microfinance person in his shop and in turn the loan officer granted loans at 17% APR with no collateral. The loan officer was a resident of the community and knew all the applicants. He reported 100% repayment from 530 customers last year.
- No other manager granted credit but did facilitate the Credo bank loans by helping fill out loan applications. Those managers reported much higher interest rates.
- None of the FSCs had well-designed demo plots though one was in the planning stage; one used his greenhouse for demo and one farmed 20 hectares that he used both as a demo and for commercial purposes.
- One FSC also had a MSR at a different location though crop input suppliers were sold at that site. One FSC had one tractor and various implements.
- Most managers stated that they use Agro-Service Association services and were members.
- Four FSCs are probably not profitable, though the managers' don't seem to know it. The sales volumes and the attendant gross margins are not sufficient to carry the expense load.
- Little if any of the financial information was considered reliable to make an analysis, some managers were making wild guesses at their numbers. One would not discuss it in detail at all.
- None of the managers understood any of the concepts of financial management except for profit and loss. Then they would probably have to wait for that number until the end of the year.
- Two of the managers used manually prepared spreadsheet to record sales.

Conclusions

- All of these managers and accountants could benefit from the financial management training identified in the preceding section.
- All managers could benefit from marketing and sales training.
- Though the manager at one FSC implied that he had access to capital, the imminent first year loss could be shocking. Sustainability is in doubt.
- One manager will have to depend upon the income from his tractor service to be profitable. If he has bad debt losses, sustainability is in doubt.
- One manager is barely breaking even at best but determination of the manager may turn the tide from a doubtful sustainability. Veterinarian service (artificial insemination) income may be needed for sustainability.
- One manager with the MSC obtained through the AMP also has four retail shops and maintaining control is the major concern. Though he has some excellent management attributes, he needs to delegate some of the management responsibilities, specifically the machinery service part of the business.
- Another had six small shops which market area completely encompasses the market area of another FSC.

- Every manager identified the principal needs of their customers as warehousing or cold storage to stretch out the market period for fruits and vegetables. One manager added that a packing house to wash, sort, and package produce should be added to either storage facility.
- Three managers implied they have some access to capital to add storage facilities but would need some financial assistance to construct a modern facility that would pass HACCP and ISO certification requirements.

Recommendations

- Offer the same financial management training program as described in the previous section to all managers in the Imereti region.
- CHS INC and/or Land O' Lakes have a marketing/sales training module specifically tailored to the FSC manager. It could be revised and translated into the Georgian language to fit the needs of Georgian FSC managers. The consultant may be able to identify a trained instructor who has previous experience conducting this session in the Former Soviet Union (FSU).
- Request Credo Bank to become more active in the Chiatura and Sachkhere districts. Chiatura FSC specifically needs access to capital to maintain an acceptable stock level.
- Consider the FSCs at Terjola and Vani as potential partners for the EPI program.
- Consider assisting the manager of the Geguti FSC in preparing his warehousing and cold storage facility for dill to meet HACCP and ISO certification requirements. Simultaneously assist him in forming a grower association with the intent to train and qualify growers in order to meet GlobalGAP standards. This would position the enterprise to export the dill product directly to Europe.
- Consider the manager at Geguti FSC as a potential investor in a modern greenhouse project. He is in the process of building six of the typical plastic covered greenhouse.

Gaps in the Supply and Demand of Agricultural Inputs

Through the interviews, a reasonably good analysis could be made of the supply and demand of agricultural inputs. Those inputs are technology (information, training), products, services, including machinery and soil testing, and credit. Following are the key observations, conclusions, and recommendations resulting from these interviews. Again, there were further discussions beyond these questions, as well as observations made by the consultant, which may or may not be gleaned from an examination of the interviews shown in at the end of this report.

Key observations

- The vast majority of farmers in the Imereti region can easily purchase crop/livestock input supplies through the FSC network and other retailers. They can also find some of their supplies in a kiosk at the central bazaars.
- Machinery is in short supply and the two FSC/MSCs report a need for additional equipment to meet the demand.
- One manager stated that he had applied for equipment through the AMP but has not been informed of a disposition of the application.
- A very large number of greenhouses exist in the area south of Kutaisi but they are almost all made with plastic covering which has a guaranteed life of three years maximum. They are mainly operated by farmers who have one hectare of land maximum. Principal crops are tomatoes, cucumbers, peppers, and the herb, dill.

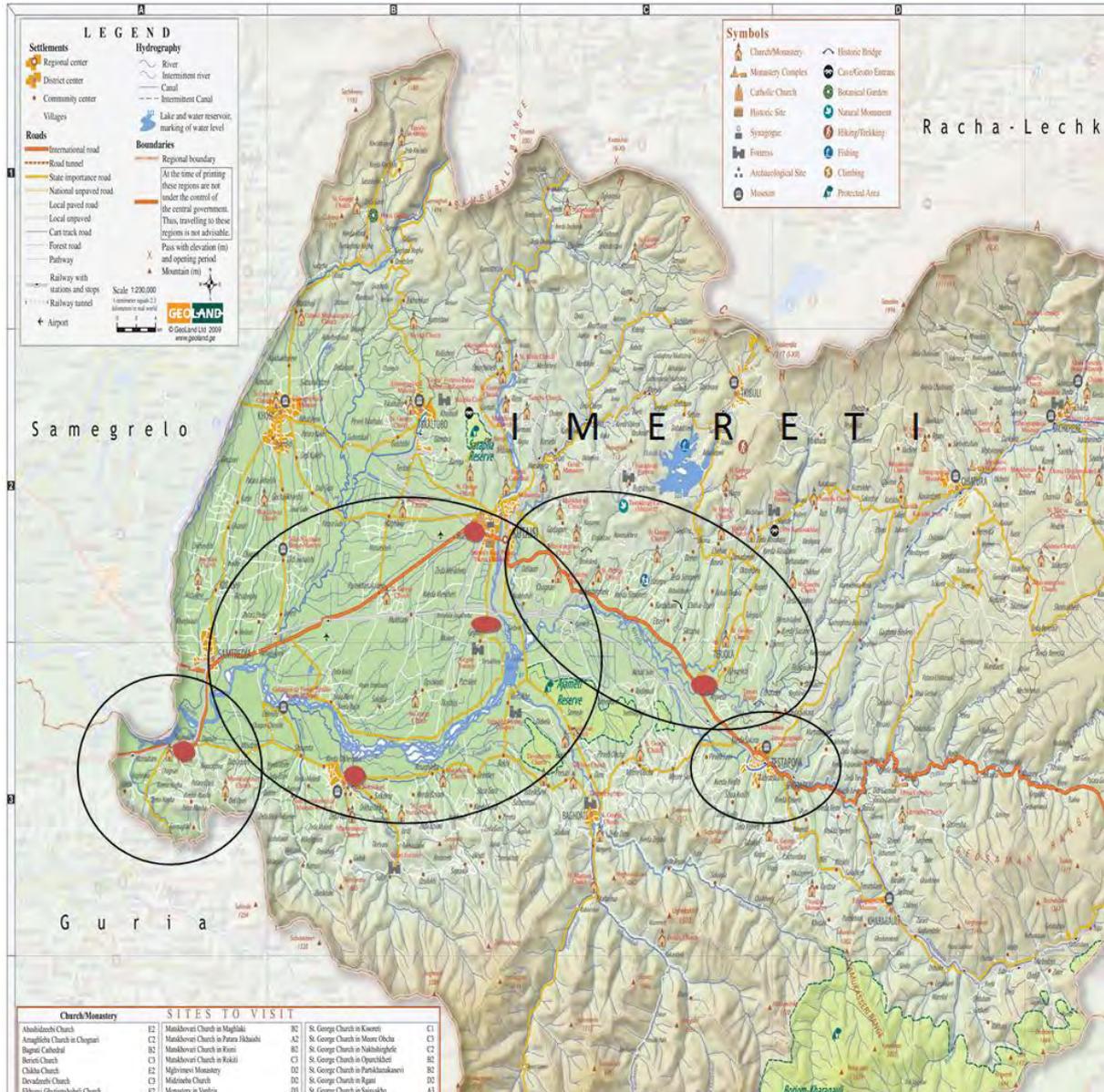
- Two managers reported that no microfinance program was available for their target customer, the peasant farmer.
- A few managers use the portable soil test kit to test soil for peasant farmers. The qualitative data provided is acceptable to the customer.
- Some managers made interesting suggestions for the service they would desire from the Agro-Service Association.
- With the exception of two managers who used their greenhouses for demonstration purposes, no other had a demo plot to use as a farmer-training device.

Conclusions

- No gap exists for farmers to easily obtain crop/livestock input supplies.
- Machinery service is in short supply throughout the region.
- Credit though expensive is obtainable for the credit-worthy borrower in most of the region. There is a gap for credit availability in the Chaitura and Sashkhere districts.
- Soil testing data provided by the portable soil test kits are acceptable to the peasant farmer.
- All FSCs provide good information about the products they sell and the information is in the Georgian language. Also, the FSCs periodically provide farmer training with several using Agro-Service Association assistance.
- There is a total absence of a well-designed demo plot in the region.

Recommendations

- Similar recommendations for this region were given in the previous section.



SAMEGRELO REGION

The Samegrelo region has a large arable land base compared to the number of household so the farms tend to be larger than the Imereti region farms. The region produces approximately a two-thirds of the hazelnuts produced in the western end of the Republic or about half of the total. The population appears to be more affluent than the populations of the previous two regions. Approximately, half of the land is in orchards and half in cropland. Farmers are turning to raising wheat and corn rather than vegetables according to one manager. Many of the observations, conclusions and recommendations for the managers are identical to the previously described regions; therefore, only the different ones will be reported here. Only two FSCs represented this region, Senaki and Khobi. One other FSC is located in the upper northeastern end of the region and is not located in an area of interest to the EPI Program.

Business Acumen

Both managers did not have a good handle on the financial aspects of their enterprise in terms of financial performance. Both managers judged that they would be profitable but from the sales volume reported and the expense load identified, profitability is questionable for both FSCs but one could experience a severe loss.

Key observations

- Both shops were neat and well organized.
- One shop had a large supply of various machine-driven, hand-held tilling equipment and sprayers. Customer traffic was heavy.
- One manager was very farmer oriented and had recently taken a survey of farmer needs. Primary need was low-cost affordable credit, both short and long term. The next priority was access to machinery services.
- The other shop was sparsely stocked with little customer traffic; however, one customer who was from the Zugdidi region was interviewed.
- The customer from Zugdidi said that he liked getting his product from a FSC rather than a kiosk which the only source available in his district.
- The Zugdidi customer also said that he liked the training in hazelnuts that the FSC offered and no access to training was available in Zugdidi, the capital city.
- Of the hazelnuts produced in this region, two-thirds are produced in Zugdidi district and the other third in the Khobi/Senaki district.
- One manager had a PhD in Economics and had assembled an excellent staff.
- Both FSCs had demo plots and one had a greenhouse demo but none had demo plots of the principal crop, i.e., hazelnuts.
- Both managers had income-generating enterprises outside the FSC which could help sustain the business for a time. Sustainability depends upon the commitment of the manager.
- Only one manager appeared to be committed to the success of the FSC. The other was more interested in his bay-leaf business and other enterprises he was involved in.
- One manager did not seem to be aware that the other FSC was a competitor who had established a shop in his city.

Conclusions

- One manager could benefit by taking the financial management and marketing/sales training courses; the other probably not trainable.

- One FSC will survive only because of the commitment by the manager.
- One may cease operations after suffering losses.
- The surviving FSC could easily take over the vacated market area and already has a shop in that city.

Recommendations

- Evaluate the bay-leaf enterprise for HACCP and ISO certification. Also, evaluate the premises for a cold storage facility. There are still many vegetable producers in the area who move all their produce to market during peak supply times.
- Encourage the manager from Senaki to take the financial management and marketing/sales training courses described in a previous section.

Gaps in the Supply and Demand of Agricultural Inputs

Many of the observations, conclusions, and recommendations are similar to the previously described sections. However, there are six worth mentioning that are unique to the area.

Key observations

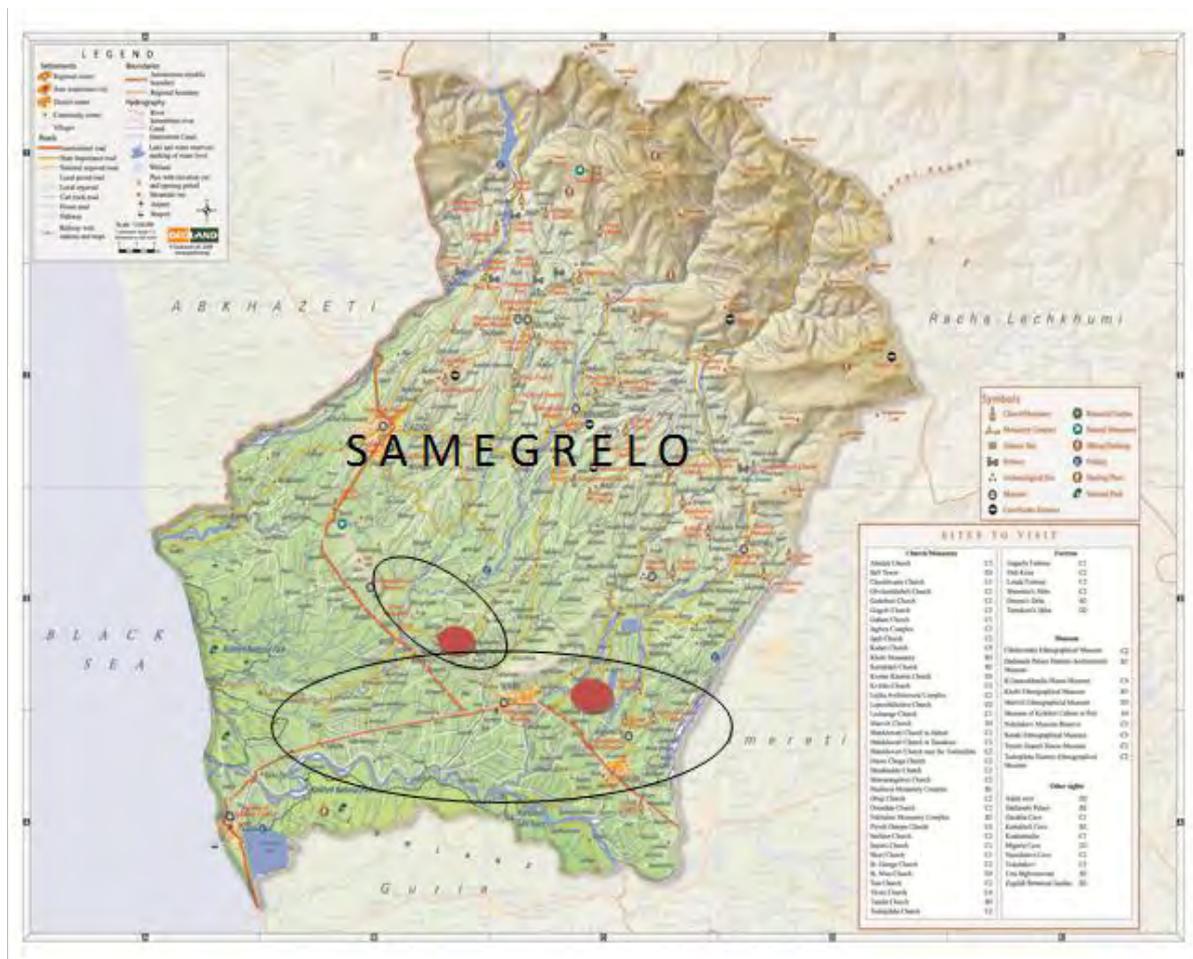
- Access to affordable long-term credit for orchards and equipment is not available.
- There is no access to the products and services provided by FSCs in the Zugdidi district. Zugdidi is the regional capital city.
- Zugdidi district produces the most hazelnuts (an EPI target crop) than any other district. Twice as many as the next district.
- One seemingly prosperous hazelnut farmer travels to Khobi to purchase his inputs and benefits from the training offered. He has vacant shop space available in Zugdidi that may be large enough for a small FSC.
- According to that farmer, producers are just learning the benefit of modern horticultural techniques for the care and maintenance of a hazelnut orchard.
- There are 14 hazelnut processors in the Zugdidi district and one farmer claimed that 1000 growers had their own processing workshop and they export their product to Russia via Ukraine.
- The manager of a hazelnut processor was interviewed and was given a tour of his facility. He was somewhat interested in establishing a FSC to especially focus on the commercial hazelnut producer. He was also interested in going through the process of certifying his plant to HACCP and ISO standards. He also was aware that it would be advantageous to have hazelnut producers certified to GlobalGAP standards.

Conclusions

- Establishing or renovating orchards require long-term investment, a shortage in this region.
- Though fertilizers, pesticides, and seeds are readily available in the Zugdidi region, there is a gap in the availability of technology, machinery service, and credit for the commercial farmer. The regional capital city of Zugdidi is a logical choice for a location for a FSC.
- Training is necessary for hazelnut producers if they are to improve their yields and achieve improved prosperity. There does not seem to be a great enough emphasis on training.
- A hazelnut processor is a logical partner to establish a FSC to specifically focus on hazelnut producers.

Recommendations

- Consider developing creative methods to provide affordable long-term credit to producers who plant or improve hazelnut orchards and invest in modern agricultural equipment. A similar program may be required for blueberry producers.
- Develop the funding for a FSC in the Zugdidi district to fill that gap. This could be considered under the USAID-AMP program with nut harvesters being a part of the project. A FSC in Zugdidi is required to help fill the technology gap.
- Enlist the Agro-Service Association to assist in stepping up training of hazelnut producers. A FSC in Zugdidi is strategic in providing that training.
- Consider encouraging a hazelnut processor to establish a FSC. They have the resources and vested interest in helping producers improve their quality and quantity of hazelnuts. There may be adequate space for a FSC in central Zugdidi.



ADJARA AND GURIA REGIONS

There are two FSCs in the Guria region and it is also served in part by FSCs located in surrounding regions and the only FSC in the Adjara region. The latter has a branch location very near the Guria and Adjara border. The managers of the two FSCs in Guria region, namely Chokhatauri and Lanchkhuti were not available for interview, therefore, the only manager evaluated in this section is the one from the Batumi city.

Business Acumen

Key observations

- Well maintained, organized, and stocked FSC at Batumi.
- The company has three locations, two in Batumi and one near the Guria border.
- Two of the three were examined and they appeared similar.
- The company is staffed with competent personnel.
- The manager had no problem describing his sales/marketing strategy.
- The manager has a PhD in Economics.
- He possessed excellent products and services knowledge.
- He was aware of his customers' needs and how to fill them.
- He knew his market area and target customer well.
- He employed an accountant who kept the financial records on a computer program. He could look at his P&L and Balance Sheet daily.
- He ran a profitable enterprise and was looking for investment opportunities in the agricultural area.
- He expressed interest in establishing a cold storage facility for tangerines and other fruits and vegetables produced in the area.
- He gave only partial answers to most of the financial questions.
- The manager has a favorable relationship with his banker and suppliers.
- The owner of a hazelnut processor in Ozurgeti was interviewed

Conclusions

- The manager is a first class operator and has no need for further training in management or sales/marketing.
- This manager is an exception and it is doubtful the managers of the two FSCs in the region are of this quality.
- There is a serious gap in the supply of technology in the southern central portion of the Guria region. A FSC in Ozurgeti is a logical place for a location.

Recommendations

- Look to this enterprise/manager as a potential investor in output marketing. He has expressed interest in cold storage for his customers' produce.
- Apply the same recommendations from preceding regions to be applicable to the two FSC managers in the Guria region.

Gaps in the Supply and Demand of Agricultural Inputs

Observations, conclusions, and recommendations given in other regions are operable for these two regions. However, there are a few that are unique to these two regions and they are delineated below.

Key observations

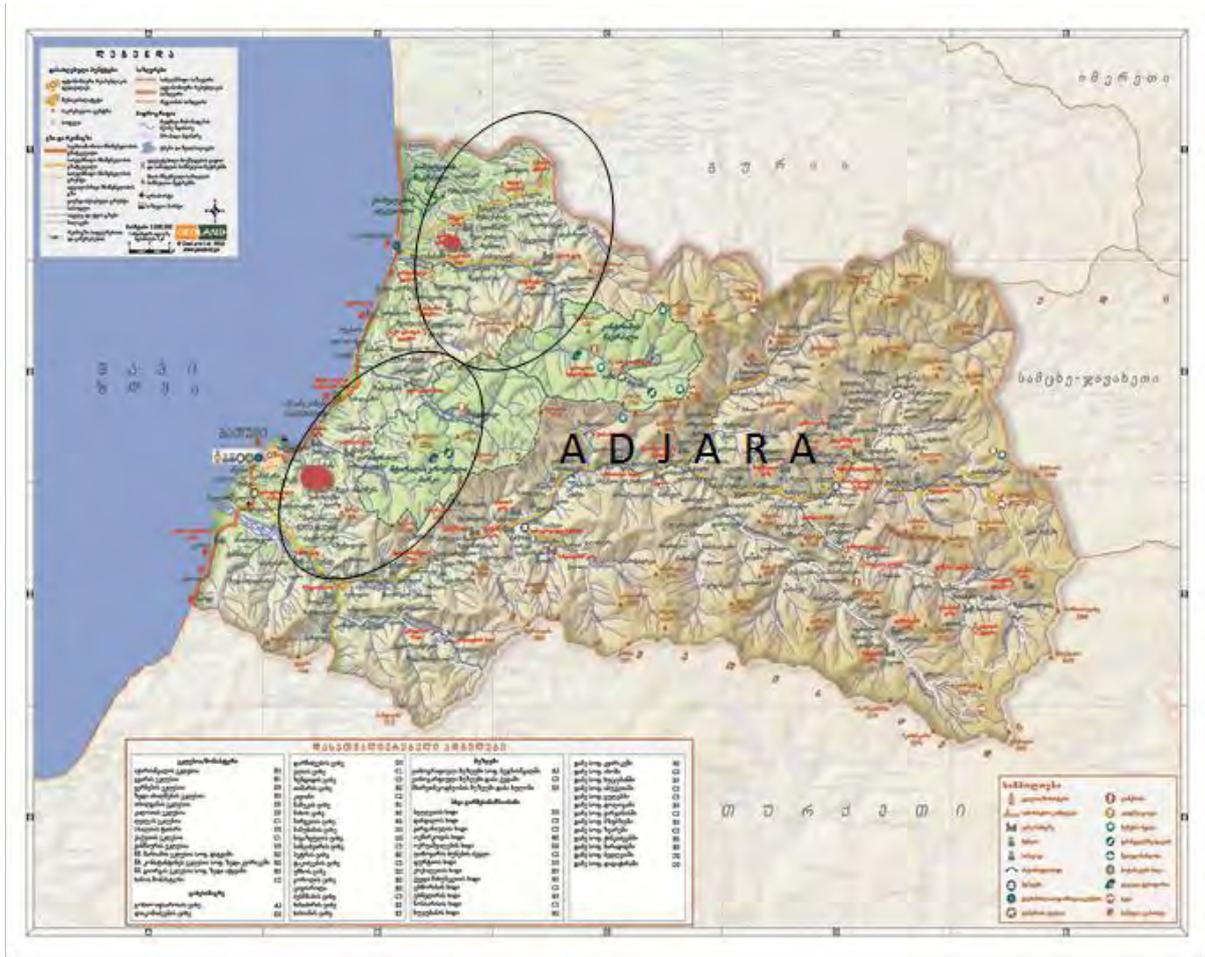
- The Adjara region and a small portion of the Guria region is well served by the Batumi FSC which has two locations in Batumi and another near the border of Guria Region.
- The regions appear to be prosperous compared to other regions; however the impact of the Russian embargo is sorely felt by the tea industry.
- Hectares after hectares of tea plantations have been abandoned from Batumi to Ozurgeti.
- To prepare the soil in an abandon tea plantation to plant blueberries would be a major challenge. It would take equipment like a backhoe to grub out the tea plants. Then it would take at least one year to keep it weed free and then heavy mulching would be required because of the heavy soil.
- The manager of the hazelnut processing plant at Ozurgeti cleared one hectare for greenhouse space and complained about the high cost of clearing.
- The Guria region is emphasizing hazelnut production as the tea industry has all but collapsed.
- The manager/owner of the old hazelnut processing plant is planning to construct a modern high-capacity plant.
- According to the manager of the hazelnut plant, greenhouse industry is starting to expand. He has four large greenhouses and land cleared for a like amount. He grows cucumbers and tomatoes and sells to the local market. He uses the shells from the hazelnut processing plant as fuel to stoke the burners.
- Fertilizer, pesticides, and seeds are readily available in both regions though seedlings for blueberries and hazelnut trees are problematic.

Conclusions

- It will take an extraordinary effort to establish a blueberry industry.
- Hazelnut industry would expand if there was a new high-capacity plant.
- Greenhouse industry could be a profitable alternative to growing tea.
- In the southern part of the region, a technology gap exists. Establishing a FSC in Ozurgeti would help fill that gap.

Recommendations

- Look to the owner of the old hazelnut plant as a potential investor in either the construction of a new high-capacity plant or in greenhouse expansion.
- Look to the owner of the old hazelnut plant to establish a FSC in Ozurgeti. Such an enterprise could serve the southern portion of the region easier than the branch location of Batumi. The processor has a vested interest in helping the farmer produce higher quality and quantities of hazelnuts using the technology, products, and service provided by the FSC.





SAMTSKHE JAVKHETI REGION

This region is a major potato producer for Georgia. Presently, there are three FSCs and one MSC. The FSCs are located in Akhakalaki, Aspinza, and Adigenia. Aspinza has a branch location in the regional capital city of Akhaltsikhe. A FSC and a MSC are located in Akhaltsikhe. Only the managers at Akhakalaki and Aspinza were interviewed at length and a very brief interview was conducted with the manager at Akhaltsikhe MSC. That interview was not recorded but some observations as they pertain to machinery service are contained in the following key observations, conclusions, and recommendations.

Business Acumen

Key observations

Many of the observations are similar to the previous regions and do not bear repeating. Only the observations unique to these two enterprises are given in the following:

- One manager admitted that he spent too much money on building a very large FSC and no longer had the working capital to maintain an acceptable inventory level. Given the low sales volume, sustainability of the enterprise is in doubt.
- One manager promotes generic products manufactured in China, India, and Turkey and sells against his competitor who handles brand-name products.
- One manager reports to board of directors, the founders and owners of the FSC who have some financial capacity for expansion.

Conclusions

Conclusions for this region are similar to the ones identified in prior regions. All three managers could benefit from a training course in financial management.

Recommendations

- Encourage all three managers to take the financial management course described in earlier recommendations.
- All three managers could benefit from a course in marketing/sales and they should be encouraged to attend the previously described course.

Gaps in the Supply and Demand of Agricultural Inputs

Key observations

Similar observations can be made as reported earlier in the previous region reports. However, some bear repeating.

- A serious shortage of modern storage for potatoes exists and farmers must sell most of their produce almost immediately after harvest.
- There are other suppliers of fertilizers, pesticides, and seeds that are serious competitors for the FSCs.
- The FSC in Aspinza is a major supplier of seed potatoes imported from Holland, selling nearly 50 tons this year.
- No gap exists for the supply and demand in the region for access to fertilizer, pesticides, and seeds.
- Though the MSC has 9 tractors, 1 combine, 1 potato harvester, 1 seed classifier, and various implements, the manager reports that at least 10 more are needed to fill the demand.

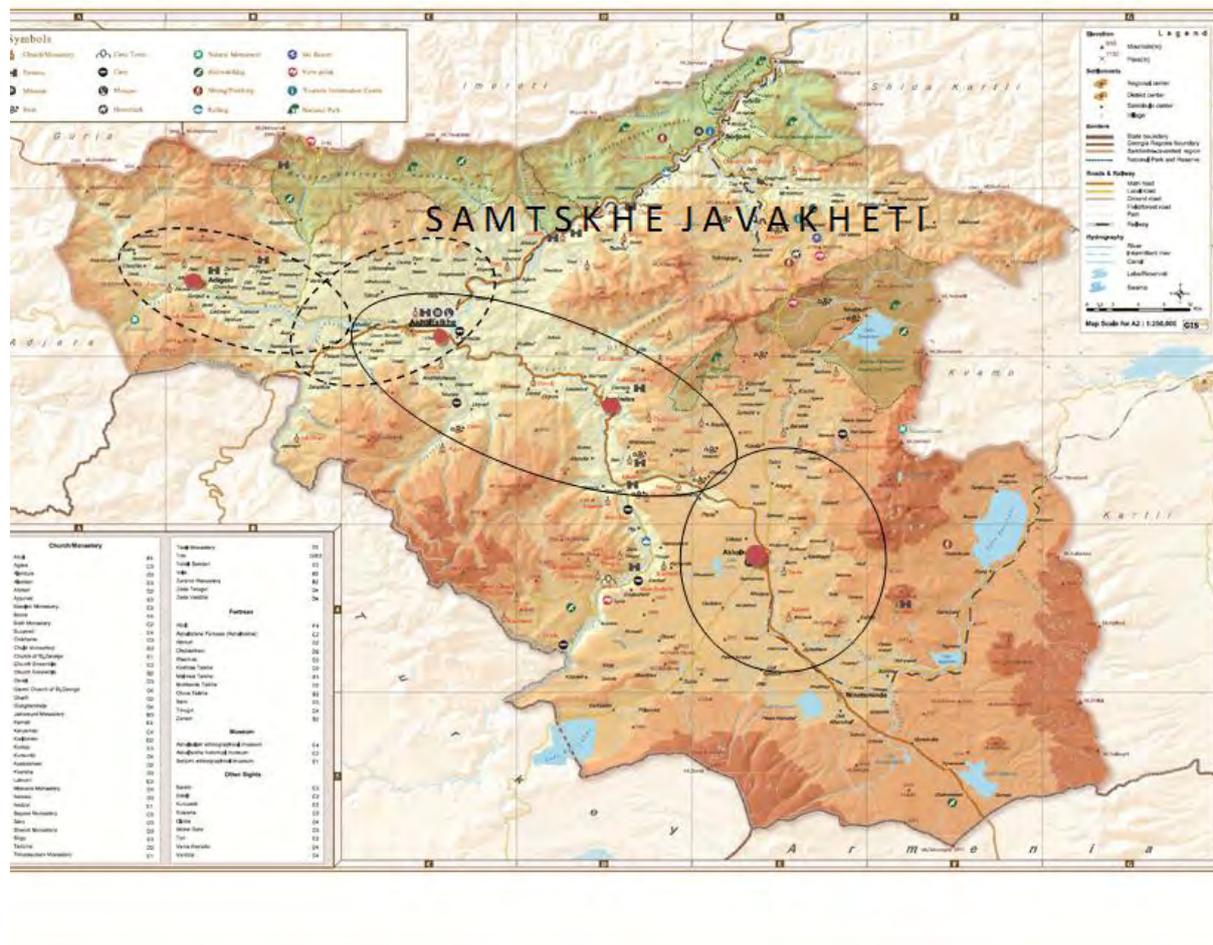
Conclusions

- No gap exists in the supply and demand of fertilizer, pesticides, and seeds.
- There is a region-wide gap in the supply and demand of technology, machinery service, and affordable credit.

Recommendations

Recommendations reported in previous region reports are applicable to this region.

- Look to the FSC at Aspindza as a potential investor in a high-capacity potato storage facility.
- Consider an infrastructure grant to establish a large potato-storage warehouse providing all potato farmers in the region with access to temperature- and humidity-controlled storage.
- Agro-service Association should coordinate the establishment of a potato-growing demonstration plot which would be well located to offer good viewing for visiting farmers. Publish the results of the harvest as well as cost of production. Agro-service Association should partner with the FSC at Aspindza in this effort.



SHITA KARTLI REGION

This region is the prime supplier of fresh vegetables and orchard fruit for the Tbilisi market. It has four FSCs located at Kaspi, Gori, Kareli, and Khasuri, all located just off the main highway from Tbilisi to Kutaisi. Many of the observations, conclusions, and recommendations are similar to previous region reports. A few are unique to the region and are reported as follows:

Business Acumen

Key observations

- Only the manager at Gori possesses the business skills and financial strength to be dominantly successful in the region.
- The Gori manager supplies working capital in the form of inventory on consignment to the other three FSCs, plus key villages in the region.
- The FSC at Gori has a larger than average Accounts Receivable not only from the other FSCs but area farmers.
- The Gori manager is the only one that has the management skills and financial strength to expand his business into postharvest activities.

Conclusions

- All managers could benefit from the training courses in financial management and marketing/sales as described previously.
- The manager at Gori may be too liberal in granting credit and goods on consignment.

Recommendations

- Expand the financial management training course to include credit management.
- Encourage all managers to take the courses previously described.

Gaps in the Supply and Demand of Agricultural Inputs

Many of the observations, conclusions, and recommendation hold for this region. A few unique to the region need to be reported.

Key observations

- There is no gap in the supply and demand for fertilizer, pesticides, and seeds/seedlings.
- There is a region-wide gap in the supply and demand of technology, machinery service, and credit.
- One farmer reported that he found only one person in Georgia that had the knowledge on how to control codling moth, a common problem in apple production.
- Many of the orchards have been neglected and it will take a major effort to rehabilitate them. But quality storage is required to meet the demand over and extended market periods making the effort profitable.
- There is a huge demand for post-harvest facilities for orchard fruits and vegetables.
- Profitable berry production will require access to in-field refrigeration and cold storage.

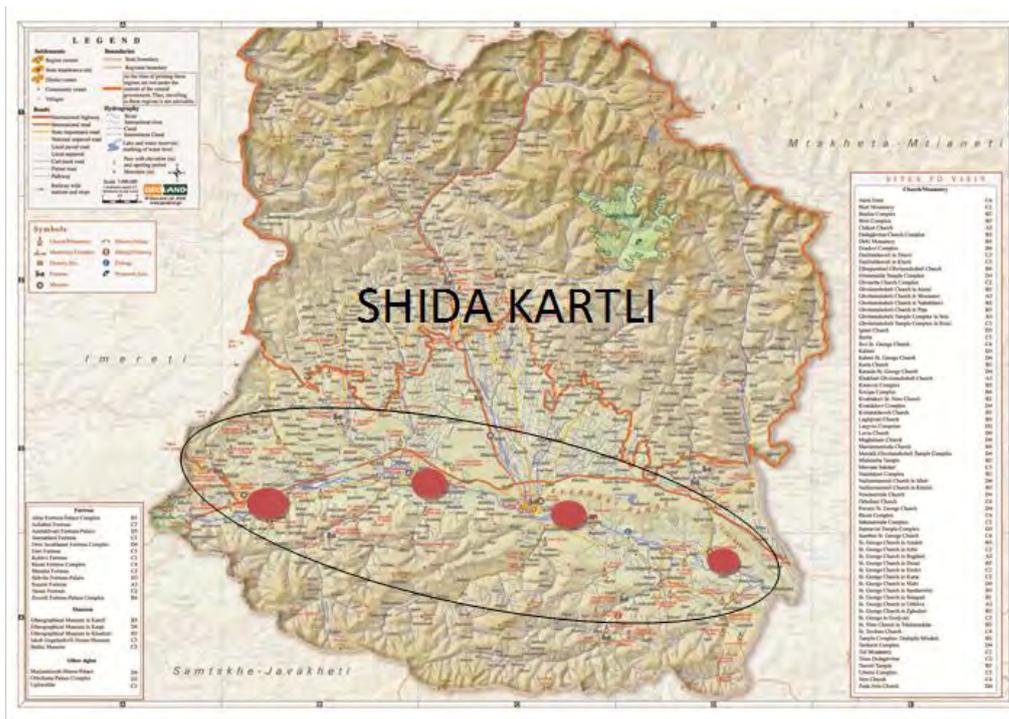
- One farmer, a customer at the Gori FSC, has the apparent financial strength to consider in-field refrigeration for his strawberry production.

Conclusions

- Only the Gori FSC has the management skills, financial strength, and optimum site to consider erecting a high-capacity cold storage facility.

Recommendations

- Similar recommendations given in previous region reports hold for closing the gap in the supply and demand for technology, machinery service, and access to affordable credit.
- Assist the Gori manager to develop a bankable business plan and investment strategy for a high-capacity cold storage facility.
- Assist the farmer who grows strawberries to develop a bankable business plan and investment strategy for an in-field refrigeration system and a small cold storage facility.



LOWER KARTLI REGION

Two of the three managers in this region were interviewed. The FSCs represented were Marneuli and Bolnisi. The third manager was out of the country. All the observations, conclusions, and recommendations are operable for this region. In addition, the following are worth mentioning:

Key observations

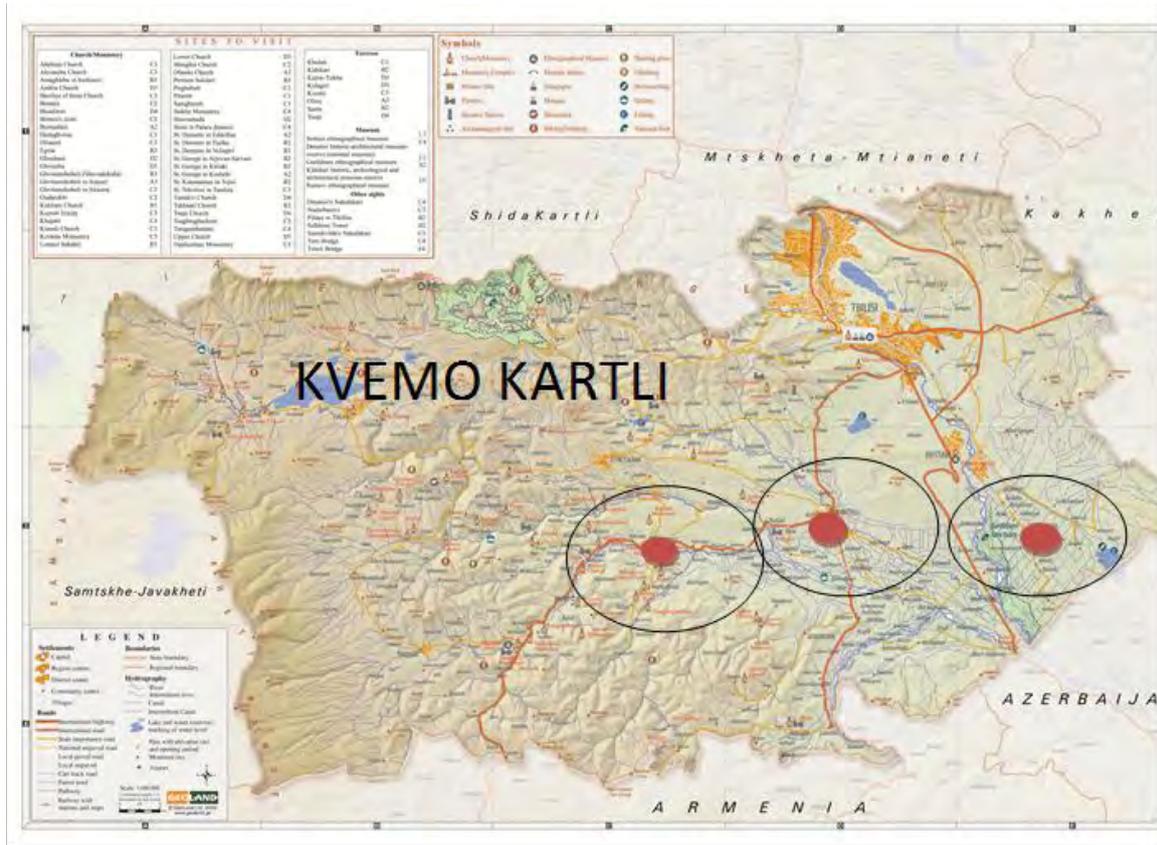
- One manager at Bolnisi produces onions and garlic in a 30-hectare plot and stores them in a converted warehouse with cooling and air-circulation. The product is washed, sorted, and packaged under the FSC's own label. The onions and garlic are periodically marketed in Tbilisi at profitable prices.
- His FSC/MSC at Bolnisi appears to be profitable and he has a large enough sales volume to be sustainable.
- The manager at the Marneuli FSC/MSC focuses his interest in the veterinarian supply business and machinery service activities.
- Both enterprises appear to be sustainable but the Marneuli FSC/MSC may face more competition. He does not seem to be aware of the competition.

Conclusions

- Both managers are weak in financial management. The manager at the Bolnisi FSC/MSC stated that all financial records were kept in the home office in Tbilisi.
- The manager at Marneuli is weak in marketing and sales.
- The manager at Bolnisi appears to have the capacity to manage growth.

Recommendations

- Encourage both managers to take the financial management course described in previous region reports.
- Encourage the manager at Marneuli to take the previously described course in marketing/sales.
- Look to the manager and owners of the Bolnisi FSC/MSC to establish a high-capacity, green-field warehouse for storage of root crops.
- Engage a financial specialist to assist the Bolnisi manager to develop a bankable business plan and investment strategy for that warehouse. The warehouse project should include a packing house.



MANAGER ASSESSMENT TABLE

This is a subjective ranking of the managers interviewed.

Mgr. No.	Facility	Staff	Prod. Kwdge.	Sales & Mktg.	Training	Competitors	Financial Strength	Growth Capacity	Financial Kwdge.	Rank
1	x		x				x			W
2	x	x	x	x	x	x	X	x		E
3	x	x	x	x	x	x	X	X		E
4	x	x	x	x	x	X	X	x		E
5	x	x	x	x	x	X		x		G
6	x	x	x			X				W
7	x	x	x	x	x	X	x	x		E
8	x	x		x		X	x			F
9	x	x	x	x	x		x			G
10	x	x	x	x	X	X	x	x		E
11	x	x	x	x	X	X	X	x		E
12	x	x			X		X			W
13	x	x	x							W
14	x	x	x	x	x		X			G
15	x	x	x			X				W
16	x	x	x	x	X	X	X	x		E
17	x	x	x	x	X	X	X	x		E
18	x	x	x	x	X	X	X	x		E
19	x	x	x		X	X				F
20	x	x	x	x	X	X	X	x		E
21	x	x	x	x	X	X	X	x		E
22	x	x	x	x						W
23	x	x	x	x		X	X	x	x	E

FARM SERVICE CENTER MANAGERS INTERVIEWS

Farm Service Center	Manager's Name	Date of Interview
Kaspi FSC/MSC	Tamaz Niparishvili	5/24/2011
Gori FSC/MSC	George Simonishvili	5/24/2011
Bolinisi FSC/MSC	Gia Mestomrishvili	5/26/2011
Marneuli FSC/MSC	Shaik Bairamov	5/26/2011
Gurjaani FSC/MSC	Ioseb Dzmanashvili	5/30/2011
Telavi FSC/MSC	Kakhi Mesabliashvili	6/01/2011
Lagodekhi FSC/MSC	Amsrosi Macharashvili	6/03/2011
Kvareli FSC/MSC	Aleksandre Ediberidze	6/06/2011
Sagaredjo FSC	Giorgi Mindiashvili	6/08/2011
Kareli FSC	Mikheil Mtiulishvili	6/10/2011
Khashuri FSC	Nugzar Kiladze	6/10/2011
Chiatura FSC	Lamara Chikelidze	6/13/2011
Sachkhere FSC	Joseb Gogitadze	6/13/2011
Alkhalkalaki FSC	Merushan Ezoyan	6/15/2011
Aspindza FSC	Guram jinchveladze	6/15/2011
Zestafoni FSC	Giorgi Kanchaveli	6/16/2011
Terjola FSC/MSC	Ramaz Tskipurishvili	6/16/2011
Geguti FSC	Mamuka Tsikoridze	6/17/2011
Vani FSC	Zurab Kartvelishvili	6/17/2011
Sajavakho FSC/MSC	Davit Malazonia	6/20/2011
Senaki FSC	Goga Gvazava	6/22/2011
Khobi FSC	Givi Shengelia, Demur Bukia	6/22/2011
Batumi FSC	Zaur Putkaradze	6/23/2011

INTERVIEW QUESTIONS FOR FSCs AND MSCs

FARM SERVICE CENTER (name)

Company Profile- brief summary of enterprise

Staff- brief description of the qualifications of staff of personnel

Customers

1. Describe your customers in terms of hectares farmed?
2. What crops do they grow?
3. How many potential customers are there in the trade territory?
4. Who is your target customer and how many do you have?
5. Do you have any large customers and if so, a) how many, b) how many hectares do they operate, and c) what crops do they raise?
6. What market share in your trade territory would you estimate you have?
7. Do you have a map of your trade territory?
8. What is your overall sales strategy to get and keep more customers?
9. Do you use credit as a marketing tool, and if so, how?
10. Are there specific customers that you don't have but would like to have and if so, what are you doing to gain their business?
11. Do any of your customers have greenhouses?
12. Do you have land and do you farm?
13. If you obtain product from your enterprise for your farming enterprise, how is that accounted for financially?
14. Are there processors, cold storage/warehouse operators, or wineries in the area?
15. Do your customers need support in post-harvest handling, storage, and marketing?
16. Can you profitably position to assist them in those operations, and if you could, would it improve the farmers' income?
17. Are any of your customers GlobalGAP certified, in the process of certification, or desirous of becoming certified?

Crop Inputs

Fertilizers:

1. What types?
2. How many average annual tons do you sell?
3. Can you keep up with the demand during heavy buying periods?
4. Who are your suppliers?
5. Do you import fertilizer?
6. When do you purchase fertilizer?
7. Does timing of purchase impact the price you have to pay for your product and how much?
8. Do your suppliers extend you credit for your purchases.
9. Do you repackage fertilizer from bulk?
10. Do FSCs pool purchases to get better price based on volume?
11. Do you make or facilitate soil testing and make fertility recommendations based on those results?
12. Do you apply fertilizer for customers?

Pesticides:

1. What is the average annual sales volume of the pesticides?
2. Do you keep adequate supplies to meet demand during heavy buying periods?
3. Who are your suppliers?
4. Where are your pesticides manufactured?
5. Do you handle cheaper generic pesticides?

6. What credit terms do your suppliers offer you for purchases?
7. Who trains your employees and farmers on safe and proper use of product?
8. Do you apply pesticides for your customers?
9. Do you sell pesticide application equipment and train customer on proper use?

Seeds and Seedlings:

1. What types of seed or seedlings do you sell?
2. What is the average annual sales volume for seeds/seedling?
3. Do you keep adequate supplies on hand to meet the demand during heavy buying periods?
4. Do you grow and/or sell seedlings and if so how much?
5. Is there a demand for seedlings and if so, what kind?
6. Who are your seed suppliers?
7. Do your suppliers offer you credit terms for purchase of seeds/seedlings, and if so how long?
8. Do you provide planting services for your customers?

Other Products:

1. What types?
2. Do you stock and sell irrigation equipment?
3. Do you sell safety equipment such as goggles and masks for pesticide handling?
4. Do your suppliers offer you credit terms for your purchases, and if so how long?

Competitors

1. Who are your main competitors?
2. Is their target customer the same as yours?
3. What is their ownership form?
4. Where are they located?
5. With what products do they compete with you?
6. Where do they source their products?
7. How aggressive are they in terms of offering similar products and services?
8. Do they impact your margins?
9. How would you compare your enterprise to your competitor?

Agro-service Association (AA)

1. Are you a member of the AA?
2. What services do they provide you?
3. How active are you in requesting Agro-service expertise?
4. Would you be willing to pay an annual fee for membership in the Agro-Service Association?
5. Would you be willing to pay a fee for services provided by the AA?
6. What services would you like for the AA to provide?
7. Does the Association have the ability to play a major role in implementing GlobalGAP?

Other Services

1. Are credit sources available for your customers?
2. Can FSC provide space for credit giver?
3. Does FSC have demonstration plots for primary crops grown in the region so as to train growers on proper agronomic practices?
4. Does the FSC grow crops for demonstration and/or commercial benefit?
5. How many farmers visit your demo plots?
6. Would you want to provide other services to customers such as machinery services?

7. If you provide machinery services for your customers:
 - How are services priced?
 - Do you take crop as payment for the service?
 - Is your machinery service business profitable?
 - How many customers do you have and can you provide services on a timely basis, i.e., is the customer satisfied about the timing of your machinery service?
 - How many units do you have?
 - Do you have problems with obtaining spare parts on a timely basis?
 - Do you have need for additional equipment and if so, how many units?
 - Do you have the financial capacity to purchase additional equipment?
 - What kind of depreciation schedule do you have and is it included in cost of service?
 - How are employees paid during off season if at all?
 - Does the owner of the MSC own or rent land and how many hectares?
 - What percent of the time are the machines used on owner's land?

Financial

1. What was your total sales turnover last year?
2. What were the approximate gross margins for each product?
3. Can you measure which products add mostly to net profit?
4. Last year, what was your net profit before tax?
5. As a percent of sales, what is your typical net profit before tax?
6. Are you current with your supplier?
7. Do you prepare a simplified consolidated profit and loss statement and balance sheet?
8. Do you use international accounting standards?
9. Do you have depreciation schedules for equipment and facility?
10. Do you have a reserve for bad debts?
11. How much working capital do you have and is it sufficient for the enterprise?
12. Do you age accounts receivable to measure quality?
13. What kind of bad debt have you had in the past three years?
14. What percent of gross margin goes toward employee expense?
15. Do you have a banking relationship and what financial records does the bank require?
16. Do you have both long-term debt and short-term debt?
17. Have you applied for a loan from a bank and if so, what was the outcome?

CUSTOMER INTERVIEWS

1. Do you buy the majority of your crop/livestock needs from this shop?
2. Are the products you buy here worth the price you pay?
3. What other shops do you buy these products?
4. Are the products you buy at other shops as high in quality as this shop?
5. How many hectares do you farm??
6. What are your crops?
7. Do you have your own machinery?
8. Do you purchase machinery services from this MSC?
9. Is the price of machinery services worth the cost?
10. What machinery services are you purchasing, e.g., plowing, planting, cultivating, spraying, harvesting?
11. Are you satisfied with the quality of machinery services you are receiving?
12. How do you pay for the machinery services?
13. Where do you market your produce?
14. Could you use better storage for your produce after it is harvested?

15. Where do you get your market price information?
16. Do you buy your crop needs on credit from this FSC?
17. Do you borrow from a bank and if so at what interest rate?
18. Do you believe your farming operation is profitable?

MAP OF FSCs AND MSCs



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