

Final Report: Strengthening Extension and Advisory Services in Georgia (SEAS)

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Photo: Israeli experts from MASHAV conducting greenhouse training in Zestaphoni, Georgia.

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Associate Cooperative Agreement AID-114-LA-13-00001

October 15, 2013 through April 30, 2016.

Table of Contents

Acronyms	vi
Acknowledgements	vii
Executive Summary of the SEAS Activity	1
External Evaluation of the SEAS Activity by Dr. Tom Hammett	1
Overview of Activities	1
1. Developing Extension in Agricultural Policy	1
2. Capacity Building in Organizational Approaches and Modern Extension Methods	2
3. Capacity Building on Technical Subject Matter	3
4. SEAS Agricultural Tools, Information Technology Equipment and IT Training	3
5. Special Events	4
6. Partnership Building	4
Brief Description of SEAS	5
Preliminary Assessment of MOA Extension System: Findings and Recommendations as of April, 2014	6
Introduction	6
Key Preliminary Assessment Findings and Recommendations:	6
Recommendations	8
Component 1. Policy and Operation	9
A. Developing Extension in Agricultural Policy.....	9
Annex 4. Results of the Key Informant Interview Study for Extension Policy.....	10
Annex 5. Georgian translation of an Executive Summary of Results of the Key Informant Interview Study for Extension Policy	10
Annex 6. Key Informant Interview Guide for (National) Policy Stakeholders (English version, available also in Georgian)	10
Annex 7. Key Informant Interview Guide for Local Stakeholders (English version, available also in Georgian).....	10
Annex 8. Preliminary Results of the Key Informant Interview Guide for Extension Policy: A Power Point Presentation for the MOA Deputy Ministers	10
B. SEAS Study Tour to Kyrgyzstan: GFRAS 6 th Annual Conference and Country Fora Workshop.....	10
Annex 1. Power Point Presentation to the MOA Deputy Ministers on GFRAS 6th Annual Conference	11
Annex 2. The “New Extensionist”: Roles, Strategies, and Capacities to Strengthen Extension and Advisory Services	11
Annex 3. The “New Extensionist”: Roles, Strategies, and Capacities to Strengthen Extension and Advisory Services (Georgian translation).....	11
C. Annual Planning Guide: Creating Successful Agricultural Education Programs for Smallholder Farmers: A Guide to Developing Effective, Operational Plans Leading to Improved Knowledge	11
Importance of Planning	11
Operations Assessment at the District and Regional Offices	13
D. Providing Input to the MOA on Organizational Approaches and Operational Procedures for a Public-Funded Extension System.....	13

Executive Summary	13
Recommendation Summary:.....	14
Observations/Issues	14
Host Organization Description and Assignment Justification	15
Issues of Assignment	15
Issue #1. Good dedicated ICC personnel exist within the system and wish to see it succeed in providing meaningful service to its clients, while providing succinct and salient information to the MOA.....	15
Issue #2: Annual MOA goals are lacking, or need clarification.	16
Issue #3: ICC personnel understand their responsibilities.	16
Issue #4: Both administrative and field support is needed in order to better provide service to beneficiaries.	16
Issue #5: The planning process for regional goals and objectives, “needs improvement” to include more diversity of stakeholders; farmers, agribusiness, technical/research institutions, and marketing.	16
Issue #6: More information is received and communicated via personal contact than other mediums.	17
Issue #7: Electronic internal communication mechanisms are being initiated, but appropriate software is needed.	17
Issue #8: Coordinated and uniform monitoring of staff can be refined and/or initiated.	17
Issue #9: Extension of ICC services to rural areas.	17
Issue #10: Use of Triple-layer (3x) plastic grain storage bags.	18
Achievements & Results of this Assignment	18
Key Contacts:.....	18
Beneficiaries	18
Feedback	19
Annex 11. Presentation Summary for Operations Assessment	19
E. Functional Assessment of Organization of the Central Administration in Georgia	19
Annex 15. Policy Note on the Proposed Principles for Organization of Central Administration in Georgia	20
F. SEAS Study Tours to the U.S.....	20
Component 2. Modern Methodologies of Program Delivery.....	22
A. Communication Skills Courses with MOA Scientific Research Center of Agriculture	22
Annex 17. Pre-Post Test Questions for Communication Skills Course Evaluation	23
Annex 18. Effective Communication. Natia Gotsadze (Power Point Presentation (in Georgian) of one of the Communication Skills training sessions	23
Annex 19. Evaluation Report: Training of Effective Communication and Presentation Skills. Nino Zhghenti	23
Annex 20. National Extension Forum Evaluation Report	23
B. Mentoring Program	24
Background and Purpose of the SEAS Mentor Activity in Georgia.....	24
Observations from Mentor Visits to ICC District and Regional Offices	25
C. Mass Extension	26
Instructional Videos	27
D. Project Communications.....	28
SEAS supported MOA Newsletters.....	28

Annex 21: SEAS supported MOA Newsletters	28
E. SEAS Success Stories (for all success stories go to Annex 22).....	28
Story #1. District-based agricultural information/consultancy center heads of the Ministry of Agriculture learned how to communicate more effectively with local farmers.....	28
Story #2. Soil test training helping MOA to change attitudes of local farmers in Lagodekhi district, Kakheti region	29
Annex 22. All success stories (including #1 and #2 with photos).....	30
F. Farmers and Services Management Software: Direct Solutions Ltd.....	30
For further detailed information about the Functional Requirements for Agricultural Electronic Management System please refer to Annex 23. Functional Requirements for Agricultural Electronic Management System of Ministry of Agriculture and ASC Word Document.	31
Additional information is available in Annex 24: Farmers and Services Management Software Presentation, given to the Ministry of Agriculture on April, 2016.	31
During the project we have conducted following activities	32
H. Field Guide and Chemical Management Spray Guide.....	33
Annex 26: Identification and Control of Major Diseases and Insect Pests of Vegetables and Melons in Georgia.....	33
Annex 27: Chemical Management Guidelines for Control of Pests and Diseases of Vegetables and Melons in Georgia.....	33
I. Atlas of Chemical Management of 29 Crops.....	33
Annex 28: Atlases of Chemical Management for 29 Crops.....	34
Component 3. Capacity Building on Technical Subject Matter	34
A. Capacity Building on Technical Subject Matter	34
B. Field Trials and Demonstration Plots	34
Annex 29: Report about Project of vegetable Grafting Experiments in Tbilisi	35
Annex 30: SRCA Vegetable Grafting Report and Project Proposal	35
Annex 31: Report about Greenhouse Renovation and Reconstruction.....	35
Annex 32: Greenhouse Reconstruction Presentation to the MOA (in Georgian)	35
Annex 33: Final Report Growing Vegetables in Protected Environments "Train the Trainees"	35
C. Special Events	35
National Extension Conference (December, 2014)	35
National Extension Forum	36
SEAS Closing Celebration	37
D. EAS Tools.....	37
Soil Test Special Initiative on Soil Fertility Management Train-the-Trainer	37
Donation of Computers to all ICC District Offices and Regional Office Heads (64).....	38
GPS Instruments and Tablets	39
Annex 34a. GPS Instrument Brochure	40
Annex 34b. Specifications for the Tablets.....	40
E. Photo Gallery	40
ANNEX 35: Pictures for SEAS activities	40

F. Partnership Building.....40

G. Final Thoughts.....43

Acronyms

AICC	Agricultural Information & Consultancy Centers
AOR	Agreement Officer Representative at USAID
CIS	Commonwealth Independent States
DCFTA	Deep and Comprehensive Free Trade Agreement
EAS	Extension and Advisory Services
ENPARD	European Neighborhood Program for Agriculture and Rural Development
EPI	Economic Prosperity Initiative/USAID Funded Project
FAO	Food and Agriculture Organization of the United Nations
FSC	Farm Service Center
FTF	Farmer-To-Farmer/USAID Funded Project
GDP	Gross Domestic Product
GoG	Government of Georgia
ICC	Information and Consultancy Centers at District Offices
ICT	Information and Communications Technology
IPM	Integrated Pest Management
MASHAV	Israel's Agency for International Development Cooperation
MEAS	Modernizing Extension and Advisory Services in Georgia /USAID Funded Project
MOA	Ministry of Agriculture
NEO	New Economic Opportunities/USAID funded project
NGO	Nongovernmental Organization
REAP	Restoring Efficiency to Agriculture Production/USAID Funded Activity
SDC	Swiss Agency for Development and Cooperation
SEAS	Strengthening Extension and Advisory Services/USAID Funded Activity
SIDA	Swedish International Development Cooperation Agency
SME	Small to Medium Sized Farm Enterprises
SRCA	Scientific Research Center of Agriculture
STTA	Short-term Technical Assistance
UNDP	United Nations Development Program
USAID	United States Agency for International Development
USG	United States Government

Acknowledgements

Special appreciation to the United States Agency for International Development (USAID) and to Mission Director Steve Haykin for seeing the need to initially fund the SEAS Activity in Georgia in support of the Ministry of Agriculture (MOA) effort to establish a public supported Extension and Advisory Services system. Also, thanks to USAID for providing a six-month extension for the activity through April 30, 2016.

Sincere thanks to Shamenna Gall and David Tsiklauri for serving as Agreement Officer Representatives to the SEAS Activity and for providing important counsel and support throughout the execution of the activity.

The SEAS Activity would not have been a success without the full cooperation of the Ministry of Agriculture leadership. Over the life of the project, special recognition is given to Minister Otar Danelia, First Deputy Minister Nodar Kereselidze, Deputy Minister Davit Galegashvili, and Deputy Minister Gocha Tsopurashvili. In addition, the Head and Deputy Head of the Regional Coordination Department, Shalva Kereselidze and Mariam Galeshvili, plus the former Head of the Food and Agriculture Department, Konstantin Khutsaidze, were absolutely instrumental in identifying needed training activities and assisting with the logistics of the ICC field staff across the country in order that the field staff could attend the various training workshops and national meetings. Thanks to Khatia Tsilosani, Head of the International Relations Department, for providing key liaison support with other components of the Ministry throughout the SEAS Activity. Levan Ujmamuridze, Director of the Scientific Research Center for Agriculture (SRCA) is recognized for his leadership in supporting the involvement of SCRA employees in technical subject matter training and back-up of ICC field staff. Alex Potapov, Head of the IT Department, was very helpful in identifying needed software and hardware to support management and reporting activities of ICC staff. He made significant contributions to the SEAS ICT Initiative.

Although too numerous to mention by name, the SEAS Activity leadership very much appreciates the contributions made by the workshop instructors from the U.S., Israel, and the Agricultural University of Georgia. They are leaving a legacy of outstanding training materials translated for use by the ICC field staff in Georgia.

Three partners were responsible for executing the SEAS Activity. These were the University of Illinois at Urbana-Champaign as the lead institution, Borlaug Institute for International Agriculture at Texas A&M University, and Winrock International. The support teams at each of these entities deserve special recognition for their efforts to go beyond the expected to ensure the success of the project activity.

The SEAS leadership also is thankful for the assistance provided by other USAID project implementers. These include the Farmer-to-Farmer Program, REAP, and NEO.

Editorial support for the final report document was provided by Vladimer Baramidze and Katy Heinz.

Lastly, the SEAS Office Team in Tbilisi deserves a special round of applause for what they accomplished over the life of the activity. Through their dedication and 'can do attitude', important activities and equipment were made available to the ICC field staff of the Ministry of Agriculture. The ultimate beneficiaries of SEAS—the small landholders—will be better off as a result of this team effort to support the new public Extension and Advisory Services in Georgia.

Executive Summary of the SEAS Activity

The University of Illinois at Urbana-Champaign (UIUC) was awarded an Associate Cooperative Agreement AID-114-LA-13-00001 for the sum of \$2,360,573 for the Strengthening Extension and Advisory Services in Georgia Activity (SEAS) during the period 15 October 2013 through 14 October 2015. SEAS was granted an extension in Project Year 3 for an additional \$300,005 with the activity end date of 4/30/2016. The USAID/Caucasus teams were encouraged to approve these additional resources as a result of the following: the excellent rating of ENPARD's (European Neighborhood Program for Agriculture and Rural Development) evaluation of the Ministry of Agriculture (MOA) Information Consultancy Centers (ICCs); the high marks of an external evaluation of the SEAS Activity conducted in May 2015; and the strong recommendation of the current Minister of Agriculture, Mr. Otar Danelia to former USAID Mission Director Stephen Haykin that SEAS be provided additional support. The activity is funded as an Associate Cooperative Agreement under the Modernizing Extension and Advisory Services (MEAS) Leadership Award between UIUC and USAID. Partners in implementation of the SEAS Activity were the Borlaug Institute for International Agriculture at Texas A&M University and Winrock International through their Georgia office.

Through legislation approved in 2013, the MOA created a public sector extension and advisory services (EAS) department to contribute to the development of the hundreds of thousands of Georgian farmers who are primarily smallholders with limited access to innovative agricultural practices and value chain markets. The Georgian EAS structure, or ICCs, consist of approximately 260 officials located in 54 district offices supported by a mid-management team located in nine regional centers. The MOA faced major challenges in developing and delivering improved production information to farmers, evaluating and improving their organizational structure, and developing an EAS policy that is farmer-driven, decentralized, and pluralistic in its approach, with the intention to attract international donor support and encourage public-private extension partnerships.

SEAS is organized around three components that addresses the development of a public agricultural extension system:

1. Developing Extension in Agricultural Policy
2. Capacity Building in Organizational Approaches and Modern Extension Methods
3. Improved Knowledge of Technical Subject Matter

[External Evaluation of the SEAS Activity by Dr. Tom Hammett](#)

Overview of Activities

1. Developing Extension in Agricultural Policy

A key informant research project was conducted in the nine regions to assess stakeholders' involvement with and opinions about the MOA EAS system. Two hundred forty-eight persons participated in the interview responses. The MOA research team analyzed and interpreted the results of the interviews from local and national stakeholders under the leadership of Professor Vladimir Baramidze from the Agricultural University and the SEAS Chief of Party.

In February 2016, a National Extension Forum was held with approximately 400 extension stakeholders convening to discuss the results of the policy research for four days. Georgian farmers, cooperative

members, MOA deputy ministers and officials, Ministry of Education and Science deputy ministers and officials, international donor representatives, Georgian university faculty, private sector and NGO organizations, mass media representatives, and local and regional government officials conducted an open forum to discuss and make recommendations on the development of a new extension model for Georgian farmers. An extension policy white paper has been completed as a major deliverable for this component.

The SEAS team conducted an Operations Field Assessment of ICC District and Regional Offices and presented the results to the MOA Deputy Minister team. In coordination with the USAID-supported Good Governance Initiative and the Georgian Civil Society Bureau, SEAS also assisted in the coordination of a functional assessment of the MOA.

On a different note, SEAS led three study tours in the U.S. that involved 30 MOA leaders from central, regional, and district levels. These tours included participation in two UIUC-sponsored MEAS symposia and visits to three land grant university extension services, USDA research stations, and workshops with international extension consultants and international development experts, which greatly enhanced face-to-face and hands-on learning. On the other side of the exchange, U.S. extension specialists then visited Georgia (two rounds) to mentor Georgian ICC officials.

2. Capacity Building in Organizational Approaches and Modern Extension Methods

SEAS worked to build the capacity of the MOA through multiple methods. The team assisted in assessing and selecting software monitoring systems and purchased a comprehensive Agricultural Electronic Management System (AEMS) for the MOA to use across the country. These actions aligned with the main objective of the MOA Information-Consulting Department and AEMS, which is to improve overall agricultural activities, create an effective accounting system, install a dynamic monitoring of development of farmer activities and their farms, and process general farming statistics.

SEAS further assisted in the assessment of software to be used for the evaluation and development of professional capacities of the MOA extension officials, then purchased software and enhanced the web portal of a Georgian NGO that will provide a tool for enhancing professional skills in partnership with a faculty team from Agricultural University Georgia.

Additionally, 38 experts from the MOA Scientific Research Center for Agriculture (SRCA) used SEAS-delivered communication skills courses to enhance their presentation skills of research-based information for Georgian farmers. SRCA scientists have presented these modern delivery packages in field workshops and at the National Extension Forum in multiple breakout sessions.

To reach a major audience, SEAS utilized mass media extension programming with GARB (Georgian Association of Regional Broadcasters), a 25 regional television network, along with Saperavi, a national television station, to show SEAS instructional agricultural best practices videos (produced by UIUC College of ACES faculty and a University of California-Davis soil scientist (formerly of UIUC)) to an estimated audience of 160,000.

The videos include:

1. Best Practices for Apple Orchard Management
2. Best Practices for Peach Orchard Management
3. Best Practices for Vineyard Management

4. Soil Nutrition
5. Using Soil Test Kits
6. Vegetable Grafting
7. Promotional Video for the MOA Information and Consultancy Centers

SEAS used several types of media to reach different audiences and promote longevity and wide use of materials. Two examples are the SEAS-supported field guide and chemical management spray guide, *Identification and Control of Major Diseases and Insect Pests of Vegetables and Melon in Georgia*. Two Ohio State University faculty (plant pathologist and entomologist) partnered with two Georgian Agricultural University faculty and a UIUC horticulturalist over a year to produce the professional guides in Georgian and English. Trainings on the use of this publication were provided in all nine regions and in Adjara to nearly 200 participants. Both guides are available online (meas.illinois.edu/training-materials) and 300 copies of the book in Georgian and 20 copies in English were distributed to the MOA, Georgian universities and to UIUC, Ohio State University and Texas A&M University in 2016. Additionally, a supplementary *Atlas for Chemical Management of 29 Georgian Production Crops* was produced and distributed via flash drives to 60 MOA field offices, including Adjara.

3. Capacity Building on Technical Subject Matter

In coordination with the MOA, a series of workshop topics were developed for each of the three years of SEAS. A broad range of topics were identified that pertained to agriculture and animal husbandry, as well as extension modern methodologies of program delivery and extension operations best practices.

SEAS recruited experts to conduct “train the trainer” workshops for the ICC field staff and lead farmers in all the nine regions and the Autonomous Republic of Adjara. Extension Specialists from UIUC, Texas A&M, University of California-Davis, Ohio State University, Washington State University, Utah State University, as well as USDA experts from Washington, D.C. and upstate New York also traveled to Georgia and led workshop and field trainings. Private sector and international NGO experts were recruited and provided training on video development and improvement of operations.

SEAS partnered with other organizations, including USAID-supported activities in Georgia like REAP (Restoring Efficiency to Agriculture Production) and Farmer-to-Farmer to recruit experts for technical subject matter training. SEAS partnered with the Israeli Embassy and the MOA to provide a two-week series of workshops throughout Georgia on greenhouse production and greenhouse construction and renovation.

Furthermore, over the three-year period of SEAS, 104 workshops were conducted for 2,066 participants. These workshops were led by Georgian experts and young Georgian scientists who were mentored by U.S. extension specialists to hone their skills and develop a better understanding of extension program delivery. Field trials and demonstration plots were initiated in years 2 and 3 and will continue with a focus on vegetable grafting and highland pasture management.

4. SEAS Agricultural Tools, Information Technology Equipment and IT Training

In 2015, 1,500 soil test kits were distributed to all field staff working with farmers. Training workshops and field training was provided. Two soil test kit training and soil nutrition videos were produced. Additionally, 64 computers were purchased and placed in all ICC District Offices and computer training was conducted with ICC staff.

In 2016, a second round of beginner, intermediary and advanced IT training was conducted through working with a Georgian IT company to provide additional training to 60 MOA field staff. Also, three advanced courses in IT software application were provided to three MOA central administration IT experts. To operate the AEMS software pilot, ten computer tablets were purchased to be distributed in each of regions.

Two advanced GPS instruments were also purchased in 2016 to be used in the registration and measurement of orchards, vineyards, and field crops to be used to develop the registration of farms on a pilot for the AEMS software. Also, two GPS cameras were provided to pilot test their usefulness by ICC offices in Georgia.

5. Special Events

In December 2014, SEAS organized with the MOA the first Georgia National Extension Annual Conference where more than 150 MOA ICC field staff, regional directors, and central administrators attended a four-day conference with plenary and workshop sessions led by international and Georgian extension and private sector experts.

In February 2016, nearly 400 farmers and extension stakeholders and MOA extension officials attended a three-day event (see previous description above in policy highlights). Then, in December 2015, the project introduced the vegetable field guide at a book event widely attended by university faculty, MOA leaders, international donor representatives, and covered by the media.

6. Partnership Building

SEAS was actively involved in building partnerships among international donor organizations in support of MOA extension. Partners included extension-related USAID activities, universities engaged in agricultural studies and research, private sector companies (both national and international), and television media organizations.

SEAS has served as a bridge to connect departments and organizations within the MOA to work more closely with each other and farmer cooperatives, associations, and lead farmers in communities

The following programs and organizations have been active partners with SEAS over the life of the activity:

Ministry of Agriculture

- Minister and his team of Deputy Ministers,
- Scientific Research Center for Agriculture
- Department of Regional Coordination
- Agency for Cooperative Development
- National Food Agency

USAID Organizations, USDA and PCV Program in Georgia

- Farmer-to-Farmer
- REAP (Restoring Efficiency to Agricultural Production)
- NEO (New Economic Opportunities Initiative)
- Zrda (follow up to NEO)
- GGI (Georgia Good Governance Initiative)
- Peace Corps

- USDA

International Donor Organizations

- Embassy of Israel and MASHAV
- UNDP (United Nations Development Programme) (Georgian project)
- UNDP and the ENPARD (European Neighborhood Program for Agriculture and Rural Development) in Adjara
- FAO (Food and Agriculture Organization of the United Nations)
- Delegation to the European Union in Georgia

Georgian Government and University Partners

- Agricultural University
- Ministry of Education and Science including vocational colleges
- Academy of Agricultural Sciences of Georgia
- National Academy of Sciences of Georgia
- Civil Society Bureau
- Multiple municipality officials and governors

Multiple Georgian and international private sector companies and NGOs

National and regional television- GARB, Saperavi, and others

Brief Description of SEAS

The purpose of the SEAS Activity in Georgia is to support the efforts of the Georgian Ministry of Agriculture (MOA) to develop a publicly funded extension and advisory services system. The SEAS Activity has worked closely with the 60 Agricultural Information and Consultancy Centers (AICCs) in Georgia to assist them to increase their effectiveness in providing farmers with production and marketing knowledge. The SEAS Activity contributes to USAID's overall goal of improving agricultural productivity and rural incomes through more effective delivery of information on best practices to farmers throughout the country.

The SEAS Activity has three main components: (1) to assist the Ministry of Agriculture in developing and implementing suitable management structures, policies, and operation procedures to improve the effectiveness of the newly formed public sector extension system in Georgia; (2) to increase the knowledge of the MOA Information and Consultancy Center (ICC) specialists and Scientific Research Center for Agriculture (SRCA) experts on how to transfer knowledge to farmers using modern extension methodologies; and, (3) to improve the technical agricultural subject matter knowledge of the district office-based ICC specialists and SRCA experts so they can share the latest information on best practices to farmers.

Implementation of the SEAS Activity started in October 15, 2013 and was scheduled to be completed by October 15, 2015. However, at the request from the Ministry of Agriculture of Georgia (MOA) an amendment was made to the Cooperative Agreement (No. AID-114-I3-00003) and the SEAS Activity was extended until April 30, 2016.

The USAID Bureau of Food Security (BFS) indicator 4.5.2(5) is: Number of farmers and others who have applied improved technologies or management practices as a result of USG assistance. As a result of the applied improved technologies and management practices from USG assistance specifically as related to the SEAS Activity, the target number of farmers who will use these technologies by the end of FY16 is targeted at 15,000 smallholder farming families. In addition, with its Mass Extension program of broadcasting the SEAS instructional videos and programs on the Georgian Association of Regional Broadcasters (GARB) network through its 25 regional stations, it is estimated that there are 160,000 viewers who regularly view these programs across the GARB network. Estimates of the viewership of the Saperavi television station network are not available.

This Final Report of the SEAS Activity is organized around the sets of deliverables that correspond to each of the three major components of SEAS. Annexes that support these deliverables are also listed and links are provided to these documents and media products.

Preliminary Assessment of MOA Extension System: Findings and Recommendations as of April, 2014

Introduction

In 2013, the Ministry of Agriculture established offices in 54 districts in Georgia and staffed the offices with individuals knowledgeable in agriculture. A purpose of the MOA field staff in these Information and Consultancy Centers (ICCs) is to transfer best practices knowledge to farmers in their district so that agricultural productivity will increase and farm incomes will be improved. At the same time, the Ministry of Agriculture and USAID agreed to initiate a project that would support further development of this publicly funded agricultural information network. The SEAS Activity has three main components—one of which is to assist the MOA in developing and implementing a suitable management structure, policies, and procedures necessary to support the extension system. A preliminary assessment of the issues and needs for the Extension Advisory Services initiative of the Ministry was an early deliverable.

Information for this preliminary assessment report was obtained from several sources. The more prominent of these are: 1) Four district offices of the Information and Consultancy Center staff were visited in December 2013 and input was provided by the district-based staff relative to operations and needs for improved activities; 2) Meetings were held with the Minister, Deputy Minister, and the Head and Deputy Head of the Food and Agriculture Department in the Ministry to learn more about plans to support the ICC delivery system; and 3) Feedback was received from the 198 ICC field staff employees who attended one of the 10 workshops held around the country in February and March of 2014.

Based on the above mentioned information sources and other discussions with various individuals with agribusinesses and implementers of donor sponsored programs in Georgia, the following key preliminary findings and recommendations were offered to the MOA as of April, 2014.

Key Preliminary Assessment Findings and Recommendations:

- 1) It is important to recognize that the new system and the associated MOA employees located at district offices have only been in place one year. It probably is not appropriate at this point to compare the effectiveness of the system and the employees to other country's systems that have been in place for years.

- 2) Employees expressed an overall positive attitude about their jobs and where they work. Some are not exactly sure what their job is in regard to transferring knowledge to farmers, but they do not seem discouraged about the future and their ability to accomplish the job.
- 3) Employees have expertise in specific subject matter. Some even have doctoral degrees. Good experience with agriculture in Georgia, and extensive knowledge of how agriculture gets done and the problems faced by producers is apparent.
- 4) Some of the technical expertise of district-based employees may be outdated, however the employees do not think so. There appeared limited exposure to the modern, advanced methods of agricultural science and technology today.
- 5) The value of training on methodology of how new ideas and technology are transferred to farmers is not well understood. They do not seem to know that how people learn and the methods for teaching adults is as important to learn as production subject matter. All employees were trained in technical subject areas; none appeared to have formal education on working with adults in the area of new ideas and technology.
- 6) It was difficult for some MOA-ICC employees to see that change is possible and to know how to bring about the change in Georgian agriculture.
- 7) Some Advisory Service employees wanted to draw a distinction between 'peasants' and 'farmers' and use that in determining how they performed their work with farm audiences.
- 8) Extension and Advisory Service employees recognize the value of demonstrations and field trials to show better ideas, practices, and technology to farmers. However, there was limited evidence this was happening now or were they being planned for this year by MOA employees.
- 9) A major impediment consistently cited for not planning and conducting demonstrations by Advisory Service employees was lack of resources. The participants could not get past the point that some private sector entities might be willing to cost share some of the expenses with the farmer for putting in demonstrations planned by ICC staff on farmer fields.
- 10) From the questions received and the interest in solving problems of farmers, with few exceptions, the Extension and Advisory Services employees appeared very willing to work with farmers and thought that this part of their job was important.
- 11) Almost all employees were eager to attend subject matter training programs to increase their knowledge on topics of interest. It would be encouraging if there were more interest in learning how to transfer the technical subject matter knowledge to target farm groups.
- 12) Although the district-based employees complimented the communication flow from the MOA leadership to the district offices, they still indicated there was inadequate communication on a variety of topics. For example, what NGO's and donor organizations had planned and were working on that pertained to agriculture in the country and particularly their region.
- 13) In the area of technology transfer, it appeared that no clear targets had been established for the district-based employees to work towards and no mechanism for assessing the contributions of district office personnel to the Ministry's goals. It was not clear how the employees were held accountable for the knowledge transfer component of their jobs.
- 14) The Extension employees located at the Mechanizatori LTD Centers are disconnected from the district MOA offices due to separate organization structure and management, yet they have many of the same job responsibilities as the district-based MOA employees.

Recommendations

- 1) Accepting the fact that the system is young, alternative management mechanisms could be considered for improved success of the system and its employees. More time is needed for the MOA to consider options and implement changes to address some of the weaknesses and to capture opportunities. More field-based supervisory positions may be necessary for a period of time to support this analysis and follow-up actions.
- 2) More training on modern methods for transferring knowledge to farmers is needed, but initially these topics will be best incorporated into technical subject matter courses in order to be more successful. Perhaps this recommendation might change in the future.
- 3) Advisory Service employees may need added incentive to plan and conduct priority demonstrations and field trials. A policy option that has been successful in some other countries is to establish a 'mini-grant' program to initiate a new practice within the Extension organization. Employees would be invited to develop a proposal for a field demonstration in his/her district and include with the proposal a request for a small budget to support the purchase of seed, fertilizer, chemicals, etc. Proposals would be evaluated by the Ministry leadership and a few selected for funding based on proposal merit. This process takes lead time to develop the format for proposals and their evaluation. And, accountability for use of the funds would be a requirement.
- 4) Due to the potential demand for education by farmers, the staff at district offices should consider broadening their knowledge base by attending subject matter trainings outside of their primary area of expertise. This way each staff member could assist the farmer on a wider range of issues. This would be important should it become necessary to reduce the number of ICC employees in some district offices. This will require District Office Heads initiation and support.
- 5) The MOA should consider ways to merge the personnel at the Mechanizatori centers with the new Information and Consultancy Center System so the Extension employees at Mechanizatori Centers would report directly to the MOA versus the local MSC Center management. This may require absorbing the salary cost of these employees by the MOA. Salaries need to be somewhat equalized between the two types of extension employees.
- 6) This is outside the realm of things the MOA controls, but if all the district offices could have viable internet access and email capability, communication up, down, and across the organization would be improved as well as the ICC staff's ability to assist farmers through web-based information sources.
- 7) District-based Information and Consultancy Center employees should be encouraged to develop one-year work plans that would include the components of needs assessment, program development, and knowledge transfer implementation strategies to address a priority problem in their district. The plans should be critiqued as to completeness and relevance to the issue. Monthly reporting by the ICC employees should include progress towards their work plan activities.

COMPONENT 1. POLICY AND OPERATION

SEAS assisted the Ministry of Agriculture in developing and implementing suitable management structures, policies, and operation procedures to improve the effectiveness of the newly formed public sector extension system in Georgia.

A. Developing Extension in Agricultural Policy

The Georgian Ministry of Agriculture is an extremely complex and detailed organization, and AICCs under the Regional Coordination Department are just one component. The other units of the MOA are SRCA, the Agricultural Projects Management Agency, the National Food Agency, the Laboratory of the Ministry of Agriculture of Georgia, the National Wine Agency, the Agricultural Cooperatives Development Agency, the Agricultural Research Centre, Amelioration in Georgia, and the Mechanizator Ltd.

Developing agricultural policy that provides an enabling environment for all units to respond well to the needs of Georgian farmers is a key guiding principle for the MOA extension strategy. Not surprisingly, donor organizations working on extension agree that at present a comprehensive extension policy must be developed that has broad-based support both within the ministry as well as with farmers, Georgian universities, agricultural development cooperatives, and private sector small and medium enterprises (SMEs).

To support policy development, three study tours were conducted in the US to familiarize key AICC staff with the Land Grant University and USDA extension models. AICCs staff had a chance to visit Texas A&M Extension, the University of Maryland and Virginia Tech Extension, and USDA offices and research centers in West Virginia and Washington, DC. Additionally, study participants attended MEAS Symposia and several extension workshops on extension policy. In the summer of 2015, the SEAS Chief of Party visited the Adjara Ministry of Agriculture project, ENPARD, which has supported an Adjarian model of extension. Additionally, participants went on field tours with other district offices in Georgia, where farmers met with AICCs representatives to become familiar with the existing situation and assess their readiness for reforms and modernization.

Taking into consideration the knowledge learned from the GFRAS conference and experience from the visits to USA and field visits to Adjarian model of extension, it is apparent that future success depends on the Georgian government's willingness to redefine its extension policy and implement a new extension model with a holistic approach combining three important aspects.

- Demand-driven extension - the end-users (farmers) help to determine what extension services are provided to address their issues and problems (Rivera 2004; Anderson 2007)
- Decentralization – (specific to extension) the decision-making authority and responsibilities are shared with the central administration of the MOA with their regional and district office staff (Cohen, 1999; Cheema 1983; Rivera 2000, Waldron 2010).
- Pluralism in service delivery - means that there are multiple public, private, and public/private partnership approaches of organizations that provide extension services (Birner, 2006)

Those surrounding and involved in extension must view it within a wider rural development agenda and recognize that the increasingly complex market, social, and environmental demands on rural production systems require a more sophisticated and differentiated set of services (Rivera 2004). From the policy standpoint, this implies that governments need to act in defining and implementing a policy where both

local stakeholders and national policy stakeholders voice their opinions on sound and effective extension policies in a participative process.

Please find the complete Results of the Key Informant Interview Study for Extension Policy, the Key Informant Interview for National Stakeholders and the Key Informant Guide for Local Stakeholders, as well as the Power Point Presentation of Preliminary Results presented to the MOA Deputy Minister Team in the following Annexes:

[Annex 4. Results of the Key Informant Interview Study for Extension Policy](#)

[Annex 5. Georgian translation of an Executive Summary of Results of the Key Informant Interview Study for Extension Policy](#)

[Annex 6. Key Informant Interview Guide for \(National\) Policy Stakeholders \(English version, available also in Georgian\)](#)

[Annex 7. Key Informant Interview Guide for Local Stakeholders \(English version, available also in Georgian\)](#)

[Annex 8. Preliminary Results of the Key Informant Interview Guide for Extension Policy: A Power Point Presentation for the MOA Deputy Ministers](#)

B. SEAS Study Tour to Kyrgyzstan: GFRAS 6th Annual Conference and Country Fora Workshop

In September, 2015, SEAS organized, supported, and accompanied MOA administration leaders of the Georgian Extension Service to attend the GFRAS (Global Forum for Rural Advisory Services) 6th Annual Conference in Kyrgyzstan. Deputy Head of AICCs Mariam Gelashvili, Regional Head of Imereti Region Rusidan Dzidzishvili, President of the Georgian Academy of Agricultural Sciences Dr. Guram Aleksidze, and representative of SRCA David Birkadze. The Georgian delegation participated in a half-day session with other countries discussing Country Forum (CF) and how they are organized. The Georgian MOA team participated into several workshops and learned about the importance of developing such a country forum in Georgia as an advocate organization for extension.

The experience of the MOA leadership team referenced above led to a consensus decision to support the development of an extension policy for the MOA EAS organization. The participants from the MOA who attended the GFRAS conference organized a meeting of the Deputy Ministers and other leaders of the ICCs to present their GFRAS experiences and to recommend that MOA in partnership with SEAS organize an extension policy research effort which would culminate in a National Extension Forum.

The Deputy Head of the ICCs took the leadership role in presenting the recommendations from the GFRAS Annual Conference (See Annex 1 Report on GFRAS 6th Annual Conference). In addition, a Regional Director of the ICCs took on the task of creating a Georgian translation of a GFRAS Policy Paper: The “New Extensionist”: Roles, Strategies, and Capacities to Strengthen Extension and Advisory Services (See Annex 1 and 2 for the English and Georgian translation).

As a result of the SEAS Study Tour to the GFRAS 6th Annual Conference this important position paper is now widely available to MOA ICC and administrative staff and makes the case for a 21st century approach for EAS roles and capacities. The following is an excerpt:

“To better contribute to agricultural innovation, EAS should collectively perform a wide range of roles. These include developing networks, organizing producers, facilitating access to credit, inputs and output services, convening innovation platforms, promoting gender equality, facilitating knowledge management, supporting adaptation to climate change, and disseminating new knowledge through training and demonstrations. To perform these roles, EAS needs new capacities at the individual, organizational and enabling environment (system) level.”

[Annex 1. Power Point Presentation to the MOA Deputy Ministers on GFRAS 6th Annual Conference](#)

[Annex 2. The “New Extensionist”: Roles, Strategies, and Capacities to Strengthen Extension and Advisory Services](#)

[Annex 3. The “New Extensionist”: Roles, Strategies, and Capacities to Strengthen Extension and Advisory Services \(Georgian translation\)](#)

C. Annual Planning Guide: Creating Successful Agricultural Education Programs for Smallholder Farmers: A Guide to Developing Effective, Operational Plans Leading to Improved Knowledge

The following is an excerpt from the Annual Planning Guide which was developed by the SEAS team led by Dr. Monty Dozier who visited Georgia and providing training to ICC staff in the field and at the SEAS sponsored National Extension Annual Conference. Dr. Dozier also provided training for the SEAS Texas Study Tour in 2015. Dr. Smith, former Chief of Party for SEAS and Project Manager edited and developed the guide with Mr. Mueller. This document also will be translated in its entirety into Georgian and should serve as a hallmark contribution to assist the MOA and its ICC specialists to have a coherent and adapted approach to the conditions of Georgian farmers ([Annex 12. Creating Successful Agricultural Education](#)).

Importance of Planning

Any successful educational process begins with **planning**. This is extremely important when establishing educational programs through participatory involvement of the local farmers you serve. Planning helps guide the educational process by identifying key components. These include things such as topics to be taught, time of year to conduct the activity, partners to aid in the teaching, and other resources needed for the programming effort to reach its objectives. To ensure a higher level of success with consultation and education on the local level, an **advisory group should be established of local and respected farmers** who understand the needs and issues of the local community. This can be an important part of the participatory planning process. Those who are providing the instruction will meet with the farmers who will receive the instruction, ensuring that the Extension educator is addressing the specific problems which farmers are concerned about within their district. In some districts, more than one advisory group might be suggested.

This advisory group of lead farmers helps the ICC specialist to design, deliver, and review educational efforts in a local community. By regularly meeting with these lead farmers, ideas and problems can be shared to direct the educational efforts in the District. Based on information the Extension educator receives from the Advisory Group, he or she can then develop educational activities and programs important to the farmers served in their districts. The Advisory Group also provides a way for the Extension educator to evaluate the planned activities and determine if they are meeting the wishes of the local farmers and addressing the key problems. This partnership between Extension educator and

lead farmer group to deliver timely, effective programs to other local farmers is the foundation of what is known as Extension program development.

Extension Program Development Model

Designing, delivering, and evaluating educational efforts flow through a model known as the logic model.

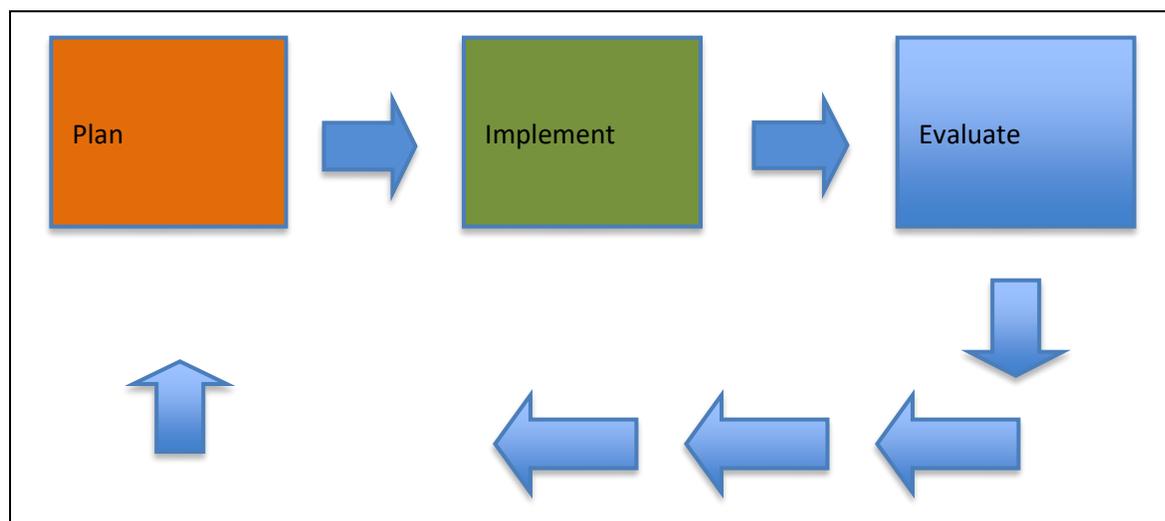


Figure 2: Program Development Model with an evaluation feedback loop.

The three core components of the Extension program development model are Planning, Implementing, and Evaluating. Below is a quick example of how each of these components works together to deliver quality Extension educational programs.

Plan – meet with lead farmer advisory group(s); determine the key issues or production problems of concern in the local farming community that Extension needs to address; decide who is the target audience for the planned educational activities (i.e., farmers growing wheat in the district); gain input on what information must be presented to address key issues; make decisions on when, where, and how the subject matter information should be delivered in order to have a successful educational effort.

Implement – develop educational (or lesson) plans and learning activities/programs to be presented to farmers that address the key identified issue(s); utilize resource people such as your co-workers in the district office or in other districts and/or other resources such as local farm supply experts to guide the educational plan implementation; deliver the information in the most appropriate manner at a time and location suitable to the target audience.

Evaluate – make personal observations on how the audience received the information and their satisfaction with the program and its delivery; when appropriate, formally measure the program impact through a written evaluation process; use the local advisory group of farmers to get evaluation information.

Feedback Loop – meet with lead farmer advisory group after the educational activities to review the evaluation of program effectiveness for input into designing future programming efforts; report program impacts to the Ministry of Agriculture and other appropriate program partners or supporters (**Important**).

Operations Assessment at the District and Regional Offices

SEAS in partnership with the USAID Farmer to Farmer program developed a discussion guide which was used in the MOA District and Regional Offices over the two-week period in December, 2015. Eighty-five MOA staff participated in the discussion groups carried out in all nine regions. Results of the Operations Assessment were shared with MOA Deputy Minister David Galegashvili and his team (See Annex 10: Operations Assessment Discussion Questions (English) and Annex 11 Power Point Presentation to the MOA on the Results of the Operations Assessment).

Mr. Bruce Bailey, the Farmer to Farmer expert recruited to lead this assessment is very familiar with Georgian farmers and the MOA as he has visited and worked in Georgia on twelve occasions. SEAS would like to express its gratitude to the F-t-F Director in Georgia, Ms. Magda Menabe for her valuable assistance in organizing this project. Mr. Bailey subsequently returned to Georgia and presented the finding of the SEAS Operations Assessment at the SEAS/MOA National Extension Forum in February, 2016.

D. Providing Input to the MOA on Organizational Approaches and Operational Procedures for a Public-Funded Extension System

Final Report by: Bruce J. Bailey

Executive Summary

1. Assignment Number: Field#GEO-FY16-062
2. Assignment Country – Republic of Georgia
3. Name of Host Organization(s)
 - Ministry of Agriculture (MOA) Extension and Advisory Services, Tbilisi & USAID SEAS Activity, Tbilisi.
4. Dates of Assignment – November 29 – December 21, 2015 (including travel)
5. Summary of Scope of Work Objectives- Per the SOW presented, the Host has requested that:

The expert is expected to:

- Complete a comprehensive internal review of the MOA organizational structure supporting agricultural extension.
- Assist the MOA in evaluating current public extension system operations for ways to improve internal staff communication, reporting, monitoring of activities, and feedback mechanisms for farmers who are served.
- As an international expert, provide an advisory role for the SEAS Chief of Party and Ministry of Agriculture Deputy Ministers assigned to the Extension organization to develop a position paper outlining best operations practices for public funded extension organizations and how Georgia could adopt some of these practices.
- Develop and implement a suitable operations management structure for the systems and procedures necessary to support the extension system management and provide training that will serve to provide a basis for continuing quality improvement of an SEAS model for Georgia.

The expert will complete the following activities in country:

- Complete a comprehensive internal review of the MOA organizational structure supporting agricultural extension.

- Assist the MOA in evaluating current public extension system operations for ways to improve internal staff communication, reporting, monitoring of activities and feedback mechanisms for farmers who are served.
- Provide an advisory role for the SEAS Chief of Party and Ministry of Agriculture Deputy Ministers assigned to the Extension organization to develop a position paper outlining best operations practices for public funded extension organizations and how Georgia could adopt some of these practices.
- Develop and implement a suitable operations management structure for the systems and procedures necessary to support the extension system management and provide training that will serve to provide a basis for continuing quality improvement of an EAS model for Georgia.

The volunteer has experience in developing and presenting such a program, and was willing and able to flexibly work with the Host in providing requested, realistic, results.

Additional topics requested of volunteer Bailey while in Georgia were to:

1. Tour a recently planted hazelnut orchard and make cultural recommendations to the owners and manager regarding best cultural practices to consider, as well as share insights in to orchard bock development/establishment for a new property to be planted in the spring.
2. Introduce the concept of incorporating the use of triple-layer plastic bags for grain storage to MOA Deputy Minister Davit Galegashvili. That briefing, with an example of the bag brought in from the USA specifically for the session, was had on Friday, the 18th, at the ACIDI/VOCA office. COP for the SEAS Activity also attended the meeting. The topics of the briefing included basic summary of the principles of the bag, research justification of the economic benefits for the use of the bag in Georgia, and discussion as to how to proceed further with investigation of this opportunity. A formal letter of appreciation and support is included within this report.

Recommendation Summary:

On December 16th a presentation to the Deputy Minister of Agriculture highlighted the observations resulting from this initial study. The observations resulting from the study are noted on Slide 21 of the included Power Point presentation and are listed below. The observations are to be considered issues for purposes of this report. A more detailed discussion of each observation/issue is included within the Body of Report section II.2.

Observations/Issues

Good dedicated ICC personnel exist within the system and wish to see it succeed in providing meaningful service to its clients, while providing succinct and salient information to the MOA.

1. Annual MOA goals are either lacking, or need clarification.
2. ICC personnel understand their responsibilities.
3. Both administrative and field support is needed in order to better provide service to beneficiaries.
4. The planning process for regional goals and objectives “needs improvement,” to include more diversity of contributors.
5. More information is received and communicated via personal contact than other mediums.

6. Electronic communication mechanisms are initially becoming established, but appropriate software is needed.
7. Coordinated and uniform monitoring of staff can be refined and/or initiated.

Upon conclusion of the presentation, clarification of points were made and discussed with the Deputy Minister. He expressed true appreciation of the study, and noted that he will use these points in forming plans on building the capacity of the ICC program.

Host Organization Description and Assignment Justification

The Georgian Ministry of Agriculture faces a challenge in establishing an effective agricultural extension and advisory services system. The Ministry hired some 245 individuals in 2013 and placed them in 54 municipality offices to carry out several duties—one of which is to transfer knowledge and innovation to farmers. The initiative of the MOA to establish Agricultural Information and Consultancy Service Centers (ICCs) in each district to be the centerpiece of a public funded extension system is to be commended. However, as with any new structure, changes are recommended, which could improve both the use of resources and enhance outcomes.

The MOA should critically consider various alternatives prior to finalizing the structure and operating procedures of the new system. Lessons were learned on how the extension agents operate, who they communicate with on a particular subject-matter area on a regular basis, how they collect necessary information and how they gather farmers, who they have as focal points at the university level, how they handle field days, how they arrange the demo plots, how the regional coordinators coordinate their duties with lower staff.

The extension structure in the US was presented during the three SEAS professional development exchange programs to the U.S. These study tours reviewed multiple land grant university extension systems, USDA research and central offices, and involvement with the MEAS (Modernizing Extension and Advisory Services) symposia and experts. These learning experiences can be used to shape MOA extension policy that incorporates operational best practices of other, more developed SEAS (Strengthening Extension and Advisory Services in Georgia) systems providing advisory services to farmers that fit the mission, goals, and objectives of the GE MOA Extension organization.

Issues of Assignment

Issue #1. Good dedicated ICC personnel exist within the system and wish to see it succeed in providing meaningful service to its clients, while providing succinct and salient information to the MOA.

Recommendation: – That the MOA strongly look and work at streamlining the reporting process, while promoting the ICC staff to continue to develop efficient and effective ways to communicate with the producer beneficiaries it serves.

Action per Recommendation: The MOA Deputy Minister noted that this issue will be addressed directly in future internal planning sessions and will improve as a result. He used the new digital reporting program process as an example.

Anticipated Impact: That the issue will be directly addressed in the near future by decision makers within the MOA, and improve as the DM noted.

Issue #2: Annual MOA goals are lacking, or need clarification.

Recommendation – That the MOA and ICC actively work on this issue together in order that all stakeholders understand MOA annual goals and objectives.

Action Per Recommendation – The MOA Deputy Minister noted that this issue will be addressed directly in future internal planning sessions and will improve as a result.

Anticipated Impact – That realistic and progressive annual goals of the MOA will be known and understood by all ICC personnel during the next issuance of this process.

Issue #3: ICC personnel understand their responsibilities.

Recommendation – That all stakeholders, at all levels of the decision making process, fully understand and are held accountable for their duties and responsibilities.

Action Per Recommendation – Continuously monitor and check for employee understanding of duties, responsibilities and accountability through periodic feedback. Mentor employees as needed/identified, to support positive work performance of ICC staff.

Anticipated Impact –All employees and representatives of the ICC continue to fully understand their duties and responsibilities as they reportedly do presently.

Issue #4: Both administrative and field support is needed in order to better provide service to beneficiaries.

Recommendation – That all representatives of the ICC work to build the capacity of their organization and outside stakeholders in order to maximize available resources to the overall benefit of the agriculturalists being served. Jointly coordinated field research trials might be an example of this recommendation.

Action Per Recommendation – The MOA Deputy Minister noted that this issue will be addressed directly in future internal and partner planning sessions and will improve as a result.

Anticipated Impact – That beneficiaries needs are realistically addressed through the ICC in an efficient and effective manner.

Issue #5: The planning process for regional goals and objectives, “needs improvement” to include more diversity of stakeholders; farmers, agribusiness, technical/research institutions, and marketing.

Recommendation – That the planning process include all appropriate stakeholders within the decision making process. In addition, the use of current and projected data to identify trends, opportunities, and existing conditions, should support the establishment of local, regional and national goals and objectives.

Action Per Recommendation – The DM totally agrees with this idea, and is presently incorporating people representing all areas of agriculture into the decision making process. Appropriate data sets will be used in establishing goals and objectives.

Anticipated Impact – More and more representative stakeholders from diverse direct and aliened agricultural disciplines will be included in setting goals and objectives of the MOA and the ICCs. MOA and ICC goals and objectives are supported by relevant and reliable data sets.

Issue #6: More information is received and communicated via personal contact than other mediums.

Recommendation – Build upon personal contact communication, with maximum use of the other mediums available. For instance, timely e-mails, phone calls, and text messages can build upon established personal contacts, while saving valuable travel time and extending outreach in a timely manner to more clients.

Action Per Recommendation – The DM agrees that personal contact is tremendously important to the ICC in order to build and maintain confidence and trust. Trainings and time management programs were mentioned as a method of assisting ICC staff of extending personal contact skills.

Anticipated Impact – Improved frequency and expanded client contact is noted as ICC personnel acquire the skills to implement enhanced digital communication strategies in the near future.

Issue #7: Electronic internal communication mechanisms are being initiated, but appropriate software is needed.

Recommendation – That internal reporting and communications systems be used more and more by ICC personnel, but not as replacement for personal contact and field visits. Appropriate and secure software systems, especially in the area of personnel evaluation, are should be researched and evaluated.

Action Per Recommendation – The DM shared a chart for expanding the use of electronic communications within the ICC organization, so the MOA is definitely being proactive on this facet of organizational communication. Software should be evaluated with respect to appropriateness of use, security, ease of maintenance, technical support, cost, and fit to ICC and MOA infrastructure.

Anticipated Impact – A much more efficient ICC organization can result if electronic communication mechanisms are refined, secure, cost and time effective, as well as user friendly.

Issue #8: Coordinated and uniform monitoring of staff can be refined and/or initiated.

Recommendation – That ICC staff monitoring and review be coordinated and made uniform by the MOA in order that fair and just evaluation of personnel is conducted.

Action Per Recommendation – The DM feels that this issue is also a concern, and will be discussing it within his agency in the near future, and to initiate a uniform evaluation process in the near future. A uniform personnel evaluation system should be researched and include the following; clear process of evaluation, uniform policies with respect to evaluation outcomes (commendations/rewards, remediation, and/or dismissal), and employee appeals.

Anticipated Impact – A uniform evaluation process will evolve in the near future, that is uniform, fair, and promotes continued personnel retention, reward and improvement.

Issue #9: Extension of ICC services to rural areas.

Recommendation – Meetings with rural agriculturalists involved in development of hazelnut orchards, note that ICC representatives have not made contact. As a result, the existence of the ICC organization, and it resources and expertise are not know to this stakeholder group.

Action Per Recommendation – Proactive involvement by the ICC into rural areas not yet knowledgeable of the ICC service and resources, becomes an organizational priority to be addressed immediately.

Anticipated Impact – That all Georgian agriculturalists become knowledgeable of the ICC services and resources, over the next few years, as indicated by field surveys, workshop attendance, meeting logs, etc.

Issue #10: Use of Triple-layer (3x) plastic grain storage bags.

Recommendation – As a result of the presentation regarding the potential of 3x grain storage bags to the Deputy Minister of Agriculture, and his very positive response, a major effort to investigate the potential of these bags for use in Georgia be made in conjunction with the ICC organization.

Action Per Recommendation – That the MOA pursue coordinating an initial study of the use of the 3x bags, and that funding and administration be sought/affirmed within the next few months. That the study be done in conjunction with the next grain harvest season.

Anticipated Impact – That the 3x bag study proves successful, and that the bags are employed to the greatest benefit possible to the Georgian beneficiaries, especially in rural areas.

Achievements & Results of this Assignment

All areas desired by the Host (SEAS) within the SOW, and as assigned, were covered during this assignment. As a result of the surveys a number of issues were identified. A presentation was developed and presented to the MOA, along with recommendations. It is anticipated that the majority of the issues addressed will be implemented into the MOA future administrative and functional guidelines. As a result, over time, the ICC effort should note improved outreach, management efficiency and service to the Georgian agricultural sector.

In complement to the initial assignment, the introduction of a unique technology of grain storage was made to the Deputy Minister. Low cost and re-useable, this triple-layer plastic bag storage has the potential to greatly increase food security for rural Georgians. Further research of triple-layer plastic storage bags is proposed by the MOA. Both the volunteer and MOA are conducting further investigation into funding and sponsorship sources, in preparation for potential field trial implementation, which will coordinate with the next grain harvest. A letter of commendation to the F2F program and the volunteer is included to this report.

It was indeed a pleasure to again be of assistance to the agricultural sector of Georgia.

Key Contacts:

Mr. Davit Galegashvili – Deputy Minister of Agriculture; Mr. Shalva Kereselidze – MOA Senior Administrator; Mr. David Tsiklauri – Project Manager with USAID; Faye Haselkorn – Senior Civil Society Advisor, USAID;

Mr. George Nanobasvili – Economic Development Team Leader, UNDP; Mr. Zurab Chkhaidze – General Director, KTW Group;

Mr. Benjamin Mueller – COP of the Strengthening Extension and Advisory Services (SEAS) USAID program;

Ms. Ia Mdzeleri – ACDI/VOCA Senior Interpreter, and one of the most professional, efficient, and effective interpreters I have ever worked with during my many years participating in F2F programs.

Beneficiaries

Total # of direct beneficiaries, at a minimum; 85

Total # of direct Male beneficiaries, at a minimum; 65

Total # of direct Female beneficiaries, at a minimum; 20

Feedback

It was a total privilege again to return to Georgia, and to be of assistance to the agricultural sector. It is sincerely felt that a solid impact has been made with this assignment through the identification of issues pertinent to the ICC and their subsequent presentation to the MOA leadership. As a direct result the MOA has clear direction for subsequent efforts to improve the functionality and service output of the ICC program. Thanks to USAID and the F2F program for allowing me this opportunity.

Katy please provide a link to Annex 10 and 11 with the Operations Assessment discussion questions and the Power Point Presentation to the MOA.

[Annex 11. Presentation Summary for Operations Assessment](#)

E. Functional Assessment of Organization of the Central Administration in Georgia

SEAS partnered with the USAID supported Georgia Good Governance Initiative (GGI) and the Georgian Civil Service Bureau to initiate a policy assessment of the central administration of the GE Ministry of Agriculture. After a series of organizational meetings beginning in November, 2015 that included the GGI Chief of Party, David Smith and Head of the Civil Service Bureau (CSB), Irina Aghapishvili, it was determined that the Ministry of Agriculture would be included in the first round of GE Ministries to be assessed. Subsequently Mr. Smith accompanied me to the Minister Daniela's Donor Coordination Meeting and had an opportunity to network with MOA Deputy Ministers who supported his efforts to conduct a functional assessment of the central administration of the MOA.

The "Functional Assessment" of the MOA began in April, 2016. Final results will be available upon approval of the Prime Minister's office in late 2016. However, it is significant that the MOA was selected as one of the first two ministries to be involved in this research which has important ramifications for its central administration policy. In April, 2016, SEAS Chief of Party and key SEAS staff met with the GGI consultant and the CSB official assigned to the MOA assessment as part of the functional assessment process.

Below is an excerpt from the initial document that describes the functional assessment methodology (See Annex 15 Policy Note on the Proposed Principles for Organization of Central Administration in Georgia).

This Policy Note provides guidelines for the analysis of collected data, from both a substantive (criteria/principles to be applied) and procedural (steps to be undertaken) viewpoint. These preliminary guidelines were developed during the September mission of the GGI FA experts and cover the general principles for the organization of functions (macro and micro organization); additional principles for applying criteria to functions common to all institutions (ToRs for horizontal/ support functions), and specific to each institution, as well as the format of analytical reports are to be produced.

The sources used for the substantive aspects consisted of relevant approved or draft policy documents and legislation of the Government of Georgia, as well as EU and international recommendations referred to in such documents. In order to make clear the practical implications and possible nuances of implementing the discussed principles, examples of good practice from within the Georgian institutions and selected comparable EU and candidate countries are also presented. As a rule, international

recommendations are used to provide a direction of the desired end state, within which elements of current Georgian legislation, policy and practice are reviewed, fitted, and in some cases corrected in order to reach the desired objective. In developing the proposed principles included in this Note, the approach consisted in i) analysis of the relevant international experience for macro or micro-organizational issues, ii) analysis of a sample of relevant cases from the Georgian administration (using the data from the line ministries questionnaires) and iii) presentation and debate of the main issues around macro and micro-organization aspects through a series of internal workshops with the CSB representatives.

The resulting text is intended as the CSB's initial proposal, to be practically tested through a limited set of pilots in the last quarter of 2015 before being finally refined and submitted to the Government for approval. After approval, the guidelines will drive the conclusions of Functional Analysis work throughout the central public administration in 2016, and their final transformation in primary legislation in 2017.

[Annex 15. Policy Note on the Proposed Principles for Organization of Central Administration in Georgia](#)

F. SEAS Study Tours to the U.S.

Particularly when a publicly funded Extension and Advisory Services Program (EAS) has been dormant in a country for several years, Study Tours are a key tool to provide the leadership of the emerging EAS with new ideas for adapting successful EAS approaches in the country. Three study tours to the U.S. were planned and implemented by the USAID SEAS Activity, and the result of these in-depth exercises is still paying *huge dividends* in Georgia. The intent of the Study Tours was not to suggest any particular structure should be copied, but instead to provide concepts that some of which could be modified to become part of an effective public extension system in Georgia. Two of the three Study Tours included an initial visit to Washington, D.C. so national policies of EAS could be discussed with the Tour participants. All three Study Tours included visits to individual states where actual EAS programs were being conducted. This provided input to the Study Tour participants both on policies affecting EAS as well as modern approaches to Extension methods (SEAS Components 1 & 2)

The first U.S. Study Tour in June 2014 included 10 individuals from the Ministry of Agriculture. Six of the participants were district office heads for the AICC service centers. In addition, the Deputy Minister who oversees the Extension function of the Ministry, Davit Galegashvili, plus the Head and Deputy Head of the Food and Agriculture Department, Konstantin Khutsaidze and Marika Galeshvili respectively made the trip. These three administrators were providing the senior leadership to the public advisory services system at that time. Davit and Marika are still in EAS leadership positions. The U.S. Study Tour provided MOA leaders the opportunity to review Extension systems of other countries plus take an in-depth look at the System in the United States. (The full U.S. Study Tour itinerary is available as an annex to this report).

Participant feedback from Study Tour participants was very positive. On the post-tour evaluation, 100% of the tour members strongly agreed with the statement "I will attempt to initiate changes in my organization as a result of the Study Tour Activity." On the statement, "The Study Tour to the U.S. increased my knowledge of administrative capacity in extension and advisory services", again 100% strongly agreed. One participant said, "*I would like to thank the U.S. Government and management of this program who gave me an opportunity to be a part of this extremely interesting study tour. It is my desire to expand the program by frequent visits of more educators/subject-matter experts to Georgia.*"

On the evaluation question of key lessons learned by participants, a Study Tour group member said, “The most important was the information about knowing needs and requirements of the farmers out of which the actual problems are identified and work/action/research plans are developed as a result.” This participant statement highlighted an important objective of the Study Tour. We wanted to share the principle of using a participative approach to needs assessment and program planning.

The establishment by the Ministry of Agriculture in 2013 of the district-based Information and Consultancy Center field staff with a job expectation to transfer knowledge to farmers on improved production methods and the 2014 creation by the Ministry of the Scientific Research Center to address applied research needs in agriculture provide an excellent foundation for improvements in agricultural productivity and improved incomes of farm families in Georgia. While significant training activities and infrastructure enhancements will be required, a successful model such as the one below is evolving in Georgia.



The second Study Tour to the U.S. occurred in January 2015. Due to time constraints, the Study Tour only included a visit to Texas to observe the EAS activities and discuss policies and EAS modern methods of reaching farmers with improved knowledge. A reason for visiting Texas was that Texas uses a similar administrative structure that the Ministry was moving towards in Georgia which is having Regional Heads provide coordination among the District Offices in the Region. Participants in this Study Tour included the new head of the Regional Coordination Department, Shalva Kereselidze, the Deputy Minister overseeing the Regional Coordination Department, Gocha Tsopurashvili, and four of the recently appointed Regional Office Heads. This group heard experts discuss the U.S. Extension system and the components that might be of interest for adapting to Georgia. It is recognized that the Ministry of Agriculture must determine its own system that best fits the needs of Georgia.

A strategy meeting with the Study Tour participants was held the last day of the study tour. Several needs were highlighted by the participants. They recognized that the Extension network must win the trust of

farmers in order to be effective. It was mentioned several times that the information that AICC staff shares with farmers must be research based in order to get the results desired. This highlights the need for the Scientific Research Center of Agriculture (SRCA) to coordinate activities with and be responsive to the issues raised by the local AICC offices. The SEAS staff followed up on this discussion by meeting with the Director of the SRC on plans for interacting with AICC field staff and for collaborating with SEAS on the seedling grafting innovation that SEAS is introducing to AICC staff. This finding also led to the Communications Training planned for SRCA staff in Year 3.

The third Study Tour to the U.S. occurred in June 2015. A very different approach was used this time in selecting Tour participants. The target audience was relatively young district-based ICC staff of the Ministry who had potential for emerging into EAS leadership positions in the future. The head of the Regional Coordination Department in the Ministry supported this concept. After interviews were conducted, seven AICC employees and one SRCA employee were selected. Although it was not intentional, it turned out that the Interim Head of the Kakheti Region, the Interim Deputy Head of the Kakheti Region, as well as the Interim Head of the Gardabani District Office were among the eight Study Tour participants.

The first week of the Study Tour included participation in the MEAS Symposium in Washington DC. The Study Tour group heard experts from many countries discuss Extension systems and component management that could be of interest for adapting to Georgia. Members of the study group were active participants in the MEAS Symposium and the one-day session on public-private partnerships (PPP) in delivering extension information.

The second week of the Study Tour was devoted to learning modern Extension methods for transferring knowledge and innovations to farmers. Site visits in Virginia and West Virginia were made to county Extension offices, regional research and Extension centers and research farms. In order to show the Study Tour participants how Extension staff engage with farmers in the U.S., farm owners were interviewed and an actual farmer meeting conducted by the local county Extension staff member was attended. It is very hard to duplicate the impact of seeing U.S. Extension professionals in action and interacting with growers who depend upon Extension without actually being there. This is why the three Study Tours to the U.S. were instrumental in shaping the direction of the EAS system in Georgia. (The itinerary for the second week of the Study Tour is available as an annex to this report.)

Another very positive outcome of the third Study Tour was the fact that the SEAS Chief of Party was able to involve these eight Study Tour participants in assisting with the research for the Key Informant Interview for Extension Policy report. These eight participants were instrumental in administering the interviews that led to the Extension Policy report. This is just another example of capacity building by the SEAS Activity.

COMPONENT 2. MODERN METHODOLOGIES OF PROGRAM DELIVERY

A. Communication Skills Courses with MOA Scientific Research Center of Agriculture

Prepared by Dr. Nino Zhghenti

In the framework of USAID activity, Strengthening Extension and Advisory Services (SEAS), trainings for scientists and specialists from the Scientific Research Center of Agriculture were organized. One of the

milestones of SEAS program was to foster communication and collaboration between scientists and farmers, the major focus of trainings was to improve communication and presentation skills. To make trainings needs-based and therefore, more effective pre-, post- and in process evaluations were conducted. The evaluation research had three goals: 1. assess trainings in process and to make changes immediately, if necessary; 2. evaluate before/after knowledge theoretically; and in practice, 3. build a strong foundation for similar training schemes. This on the one hand ensured that the structure and content of the training was responsive to the goals of the program and needs of the participants and on the other it created good source for improvement of such trainings in the future.

The trainings turned out to be very successful. All participants received certificates from the University of Illinois. Moreover, some of the participants also had an opportunity to present their work at National Extension Forum which was also organized in the framework of USAID SEAS program in February, 2016.

For additional information see annexes 17-19 below.

[Annex 17. Pre-Post Test Questions for Communication Skills Course Evaluation](#)

[Annex 18. Effective Communication. Natia Gotsadze \(Power Point Presentation \(in Georgian\) of one of the Communication Skills training sessions](#)

[Annex 19. Evaluation Report: Training of Effective Communication and Presentation Skills. Nino Zhghenti](#)

Annex 20. National Extension Forum Evaluation Report

The following is an excerpt from the complete [National Extension Forum Evaluation Report \(Annex 20\)](#).

The National Extension Forum (NEF) was organized in the framework of USAID activity – Strengthening Extension and Advisory Services (SEAS). The forum took place during the third week of February, 2016 at Hualing Hotel in Tbilisi, Georgia. This was a three-day forum with the overarching purpose of promoting policy dialogue and conduct a stakeholder analysis of existing agricultural extension policy and its future development with Georgian farmers.

In total, the NEF had 340 participants representing public, private, and civil society sectors including the Agricultural information and Consultancy centers (AICCs), LLC Scientific Research Center of Agriculture (SRCA), Ministry of Agriculture (MOA) Central Administration, Local Government Officials, Donors, Local Stakeholders and Cooperative members. Apart from awareness raising about extension policy and networking, the forum also provided thematic training sessions on agriculture for all interested participants. The themes were selected according to the needs and interests of participants.

The evaluation research was conducted for overall forum as well as each session. The aim of the evaluation was to assess the quality and effectiveness of the forum. The NEF evaluation data would also be useful and informative for donors, governmental organizations, NGOs and international organization who might plan for similar forums, conferences and trainings in the future.

Evaluation research covered two components: assessment of each training during the breakout sessions and overall assessment of the Forum. In the first component, participants of each session on both days completed session evaluation forms (*annex#2*). These evaluations included closed and open-ended questions. In close-ended questions, participants were instructed to agree/disagree with seven statements using a Likert five-point scale where 1 meant totally disagree and 5 totally agree. The

statements covered the following: (q1) *if the aim and objectives were clearly stated*, (q2) *if the goal was met*, (q3) *if the timeframe was sufficient*, (q4) *if the location was appropriate*, (q5) *if a presentation was well planned*, (q6) *if a presentation was delivered in a simple way*, (q7) *if the provided information was useful/relevant for participants' work*. The objective of the open-ended questions was to receive more detailed information on the most interesting aspects of the session as well as understand how participants could use the obtained information/knowledge. Moreover, participants were also asked about their suggestions on session improvements for future workshops.

The second component was an evaluation of the overall Forum (*annex#3*). Similar to the session evaluation forms, forum evaluation forms also included multiple-choice questions and open-ended questions. Participants were asked to give overall assessment of the Forum on five-point Likert scale. Participants also were encouraged to name weak points of the Forum and elaborate on the most interesting sessions. In both evaluation forms, there was a "Comments" option where participants gave more detailed information about their preferences. The evaluation data was analysed qualitatively and quantitatively.

B. Mentoring Program

Background and Purpose of the SEAS Mentor Activity in Georgia

In development projects in other countries where the public funded Extension and Advisory Services efforts were in their early stages of development or expansion, the Mentoring Activity has been very successful. Although numerous workshops and conferences conducted as part of the Strengthening Extension and Advisory Services Activity in Georgia (SEAS) have focused on modern Extension methods of knowledge transfer, there can be a gap between the understanding of the concepts by ICC specialists and the actual performance in the field with farmers. The specialists may lack the confidence to be aggressive in providing assistance to farmers. By utilizing mentors from the U.S. or other locations, it is possible to provide incentives to the ICC specialists in Georgia with direct one-to-one assistance over a few days with the emphasis on the process of how to get an effective Extension effort started in a particular district. The Pilot Mentor Activity supports Component 2 of the SEAS Implementation Plan.

The concept for the pilot mentoring project in Georgia was to bring Advisory Service experts from the U.S. to Georgia to spend several days working with the ICC specialists in a single district office. This would be repeated in one or two additional districts by the Mentor. It is important to understand that this activity is not an assessment of the local office, although certainly incidental information was gained on how well the district or regional office was functioning. The fact that some ICC specialists thought the mentor was there to assess their ability to teach subject matter did cause some initial issues. But, the mentor actually was there to provide support and suggestions for implementing educational activities at the local level--how to apply what the ICC specialists had learned in other workshops on Extension methods. The expert would provide creative examples of establishing advisory groups in a district, building strategic relationships, and becoming important to the farmers. The mentor would accompany the ICC specialists on farm visits to coach the ICC district team on how to build trust with farmers. Also, the Mentor was to emphasize the establishment of on-farm demonstrations since that is a prominent educational delivery method.

Although it was planned to utilize several mentors in the pilot program to at least have a Mentor at a district office in every region of Georgia, other priorities limited the Mentor Pilot Program to only two

U.S. experts. And, the activity of one of those mentors was cut short due to auto accident injuries in Guria. To minimize the need to hire extra interpreters for the mentor activity, district offices initially were selected where there were ICC specialists with good English language capability. District offices from the regions of Kakheti, Samtskhe-Javakheti, Shida Kartli and Guria participated. The two mentors were David Winkler, a retired County Extension Agent from Texas, and Jim Kamas, a Texas Extension Horticultural Specialist. A summary of the findings associated with the mentoring activity conducted by Jim Kamas during June 28-July 10, 2015, is included in the report.

Observations from Mentor Visits to ICC District and Regional Offices

1. There was a misunderstanding by the ICC District Offices about the purpose of the Mentor Program. In the future, extra preparation will need to be made by SEAS Activity leadership to assure the host district offices that the mentor visit is to help them with employing modern Extension methods of reaching farmers with technical innovations—not to do an evaluation of the office.
2. Some of the ICC field staff indicated the primary mission of the office was to promote Programs of the Ministry of Agriculture. Some see themselves as information gatherers for the Ministry and are more focused on marketing rather than production. Transfer of knowledge to farmers was a secondary activity of some, but not all.
3. Initially, it was apparent that the expectation was for the ICC field staff to stay in their office and be available to the farmers coming to see them. This is not the way to be proactive in building trust and recognition of the ICC District Office. ICC field staff must be visible in the villages and do farm visits to learn the problems. In order to do this more effectively, another vehicle is needed for each district office with a budget for fuel so the ICC staff members can get out of the office. Some ICC staff were using their own cars to make farm visits, but apparently they do not get reimbursed for their expenses. Expense reimbursement would help address the lack of vehicles, but that is not a permanent solution. An added vehicle is a higher priority than adding an additional person to the office.
4. Most of the district offices that were visited by mentors did have specialists who were recognized by farmers as a resource. It was rewarding to see this connection between growers and the ICC staff members. Interesting, all but one of these district offices had a staff member who had participated in one of the three Study Tours to the U.S. That is another positive benefit of the Study Tours to the U.S.
5. It was obvious that there were lead farmers in every district that other farmers looked up to because of their use of technology. The mentor demonstrated that these farmers would be interested in working more closely with the ICC office in reaching farmers with best practice information. ICC offices should establish Advisory Groups of these lead farmers to assist in developing teaching activities that match the needs of the district.
6. For some reason, the activities of the regional offices seemed to be less visible to farmers than those ICC field staff at district offices. The indication was that MOA managers were encouraging the leadership of the Regional Office to be only administrators, even though the office had responsibility for providing information to farmers in the local district. In the view of the Mentor, viewing the Regional Office as only administrative was counterproductive. A way for the regional office staff to win respect of the other ICC field staff in the region is to be a good example of a functioning Extensionist. This is true for the district office heads as well.

7. The MOA should be commended for identifying relatively young administrators for the Telavi Regional Office for Kakheti. Some of the older ICC field staff appeared less interested in looking at new opportunities, particularly in Shida Kartli. After a few days in Telavi, it was apparent that the regional leaders were very open to try some of the techniques discussed by the Mentor for building trust by the farmers.
8. Even after many of the ICC field staff had attending workshops on technical subject matter, some Extensionists still did not see themselves as a source of information for the growers. Instead, they looked to the Farm Service Centers to provide the technical information to farmers. Private sector extension is needed, but the ICC field staff needs to be working closer with the FSCs in their district if the ICC field staff is going to earn the trust of the farmers.
9. The mentor found that there were some really outstanding ICC employees in the field. These were so knowledgeable that the MOA should pave the way for those staff members to be mentors to their co-workers in other districts. An example was the viticulturist in the Akhmeta district office. In fact, the Mentor thought the Akhmeta ICC office was a very good operation.
10. The issue of reporting burden needs to be evaluated so reporting does not take too much time away from the job of transferring knowledge to farmers. The Ministry needs to encourage more efficiency in this area. One option might be to only task one or two staff members in the office to handle most of the reporting so others would be free to work with more farmers.
11. Subject matter was discussed on the farm visits the Mentor made with the district ICC staff. This was done to show the local ICC staff members how to conduct farm visits and gain information for Extension methods in the District. In this process, the Mentor discovered there was a chronic problem in the area of fungicide efficacy and fungicide resistance management. This could be a major theme of the ICC offices in 2016 with the help of the Scientific Research Center (SRCA). The Ministry certainly needs to support the interaction of the SRCA with the ICC district offices.
12. The Mentor was not able to visit the Regional office in Gori but there were some innuendos that the Gori Regional office was not a good example for the districts in Shida Kartli. Growers appeared to think the Regional office in Gori was unapproachable. It may be time to redefine the roles of the Extensionists at the regional offices. They need to be role models that others can look up to. They need to get out among the farmers, and they need to encourage staff in the district to be more visible. For Extension and advisory services to be successful in Georgia, the ICC staff must proactively engage their growers. Establishing advisory groups and conducting on-farm demonstrations would be important steps in this direction.

C. Mass Extension

To reach a major audience, SEAS utilized mass media extension programming with GARB (Georgian Association of Regional Broadcasters), a 25 regional television network, along with Saperavi, a national television station, to show SEAS instructional agricultural best practices videos (produced by UIUC College of ACES faculty and a University of California, Davis soil scientist (formerly of UIUC)) to an estimated audience of 160,000.

The videos include:

- Best Practices for Apple Orchard Management
- Best Practices for Peach Orchard Management

- Best Practices for Vineyard Management
- Soil Nutrition
- Using Soil Test Kits
- Vegetable Grafting
- Promotional Video for the MOA Information and Consultancy Centers

SEAS used several types of media to reach different audiences and promote longevity and wide use of materials. Two examples are the SEAS-supported field guide and chemical management spray guide, *Identification and Control of Major Diseases and Insect Pests of Vegetables and Melon in Georgia*. Two Ohio State University faculty (plant pathologist and entomologist) partnered with two Georgian Agricultural University faculty and a UIUC horticulturalist to produce the guides over nearly 18-months. Trainings on the use of this publication were provided in all nine regions and in Adjara to nearly 200 participants. Both guides are available online (meas.illinois.edu/training-materials) and 300 copies of the book in Georgian and 20 copies in English were distributed to the MOA, Georgian universities and to UIUC, Ohio State University and Texas A&M University in 2016. Additionally, a supplementary *Atlas for Chemical Management of 29 Georgian Production Crops* was produced and distributed via flash drives to 60 MOA field offices and in Adjara.

Instructional Videos

Pruning of Apple Tree

<http://garb.ge/news/iilinois-universitetis-propheoris-masterklasi-garthveli-phermerebisthvis-video/>

Pruning of peach orchard

<http://garb.ge/news/rogor-gavskhlath-atami-stsorad-video/>

Grape Pruning

<https://www.youtube.com/watch?v=zuaeY5TKhRw&feature=youtu.be>

Soil Fertility

<https://www.youtube.com/watch?v=wzm0rdyapmg&feature=youtu.be>

Soil Test Kit

<https://www.youtube.com/watch?v=kIj3O8Q5-kl&feature=youtu.be>

Vegetable Grafting

<https://www.youtube.com/watch?v=1YITjOwCEBE>

Training about Field Guide

<http://garb.ge/news/akhali-sakhelmdzghvanelo-phermerebisthvis-video/>

Promotional Video

<http://garb.ge/news/eqstentsiis-rolis-sophlis-meurneobashi-video/>

Saparavi Videos About Extension

<https://www.youtube.com/watch?v=tcmiFBXQdkI>

https://www.youtube.com/watch?v=3KEdQQ0U_-8

<https://www.youtube.com/watch?v=YdlU251cEaY>

<https://www.youtube.com/watch?v=bDGP390V3rg>

Garb TV Extension

<http://garb.ge/news/eqstentsiis-rolis-sophlis-meurneobashi-video/>

D. Project Communications

SEAS supported MOA Newsletters

Recognizing the value of newsletters as a means to promote the activities of the ICCs and build greater awareness of the efforts of the MOA to educate and improve the production practices of farmers, SEAS sponsored the publication of quarterly newsletters throughout the activity. The District Office Head in Khoni prepared the newsletters and the SEAS Activity paid for the printing. The newsletter was provided to farmers in the District, but copies also were distributed to other district offices and the central office in Tbilisi to provide examples of mass media program delivery methods. The leadership of the MOA was very pleased that SEAS agreed to support this exemplary effort. Copies of the front pages of the newsletters in Georgian are available in Annex 21.

Annex 21: SEAS supported MOA Newsletters

E. SEAS Success Stories (for all success stories go to Annex 22)

Story #1. District-based agricultural information/consultancy center heads of the Ministry of Agriculture learned how to communicate more effectively with local farmers

The new USAID initiative, Strengthening Extension and Advisory Services in Georgia (SEAS), is a collaborative effort with the Ministry of Agriculture to support the delivery of information and advisory services through the network of agricultural specialists located in each municipality in Georgia.

The SEAS Activity's main goal is to educate district-based agricultural information/consultancy center (AICC) personnel from the Ministry of Agriculture (MOA) in time-tested, outreach educational methods to transfer knowledge and technology to farmers. Ten professional development 2-day sessions were conducted throughout Georgia in February-March, 2014 on modern methods available to help change the knowledge level of farmers. Almost 200 of the AICC staff participated.

Follow-up discussions on organizational strengths and weaknesses of the current organizational structure and management continued in April-May, 2014 with the leadership of the Department of Food and Agriculture in the Ministry of Agriculture as final plans were made for the Study Tour to the U.S. during the first half of June.

The U.S. Study Tour provided MOA leaders the opportunity to review Extension systems of other countries plus take an in-depth look at the System in the United States. The participants visited Washington DC, a Research and Extension Center in Maryland, the campus of Texas A&M University

plus county and district offices of Extension field staff in Texas. The intent of the Study Tour was not to suggest any particular structure should be copied by Georgia, but instead to provide concepts that some of which could be modified to become part of an effective public extension system in Georgia.

“I have learned to select lead farmers in my district and call for more meetings with them on a regular basis to keep up with not only their needs but needs of a whole district”

Manana Mindadze is the Head of Chokhatauri district-based information/consultancy center. She described her previous experience in communicating with local farmers only as a random endeavor as farmers used to approach her district office regarding their pressing needs and problems. “The U.S. experience has shown me that the same district office personnel are dealing with problems in a different manner. Their problem solving approach is more organized and efficient. They do not wait for farmers to visit them. In contrast, now in Guria, lead farmers themselves are gathering issues in their district and bringing them to discuss among others. “

Participant feedback from Study Tour participants was very positive. On the post-tour evaluation, 100% of the tour members strongly agreed with the statement “I will attempt to initiate changes in my organization as a result of the Study Tour Activity.” Another study tour is proposed for the USAID/SEAS Activity this next fiscal year.

Story #2. Soil test training helping MOA to change attitudes of local farmers in Lagodekhi district, Kakheti region

During USAID/SEAS Activity’s first round of professional development sessions conducted throughout Georgia in February-March, 2014, Lagodekhi agricultural information/consultancy district center’s (AICC) personnel expressed real concerns that the farmers in their district would experience significant vegetable production problems in the coming season. They primarily were referring to the soil-borne disease Fusarium Wilt which rapidly damages vegetables both in open and closed ground operations. But, U.S. experts believed the farmers likely were also facing soil fertility and other disease issues, plus there are several types of Fusarium.

The USAID/SEAS Activity made a decision to conduct two types of trainings for AICC personnel in Lagodekhi during May, 2014. The first type of training taught AICC staff how to test the pH level of the soil and the availability of nitrogen, phosphorus, and potassium under field conditions by using a simple rapid test kit provided by the USAID/SEAS Activity. While the kit is not able to test for other nutrients like commercial labs can, the exciting aspect is that AICC staff can provide some essential and timely information to farmers that likely will lead to their use of more detailed soil lab analyses in the future. The second type of training was on how to differentiate the Fusarium Wilt from other similar diseases since they often exhibit similar characteristics. Experts from the U.S. initiated crop trials in several villages of the Lagodekhi district with the intent to test mitigation strategies to reduce the negative impact of Fusarium diseases since there is no known management strategy for Fusarium to completely eliminate the disease.

Under the first training, Lead Specialists from the Lagodekhi district AICC, including Irma Khvedeliani, underwent coaching from the U.S. expert on conducting soil tests using the portable kit brought from the U.S. The expert also provided training on how to interpret the test results for sharing knowledge with farmers in the district.

“I found the tests extremely simple to learn and very easy to teach others as well. The benefit to farmers is they can quickly learn about the potential of their soil and act accordingly--using the right fertilizers”

AICC Lead Specialist Irma Khvedeliani described her experience in working with many farmers who still do not know about the benefits of soil tests and have no knowledge how simple it is to enhance the potential of their soil. She mentioned some advantages of using the portable soil test kits such as the higher cost of lab analysis and the delay for farmers to travel to a lab for that purpose.

“Your trainings taught me this basic information that is going to be a major help for me to teach farmers why they may not need to buy expensive fertilizers if they will just measure pH and other mineral levels in the soil.”

As a result of the USAID/SEAS sponsored workshop, Irma has conducted numerous individual trainings with local farmers explaining benefits of simple soil tests. In the near future, the USAID/SEAS Activity is planning to conduct trainings on soils throughout the country and deliver multiple rapid soil test kits to each district that AICC staff can use to assist farmers and also teach them about soil fertility management with the ultimate result of increasing their net incomes.

[Annex 22. All success stories \(including #1 and #2 with photos\)](#)

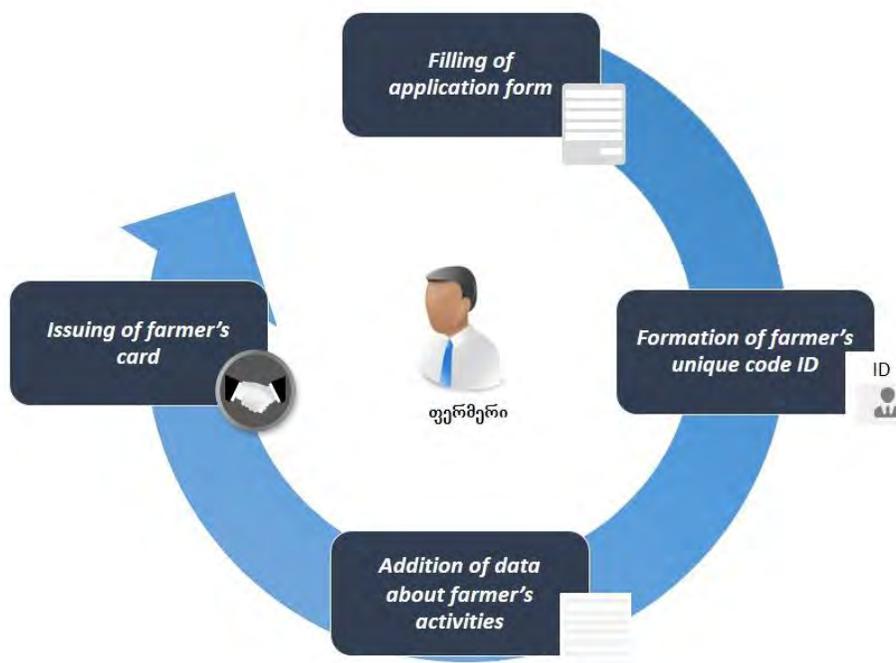
F. Farmers and Services Management Software: Direct Solutions Ltd.

The main objective of the Information-Consulting Department and Electronic Management System (further referred as System) of Extension Services is to improve agricultural activity of different directions, creation of an effective accounting system, dynamic monitoring of development of farmers' and their farms and processing of general statistics.

In order to achieve these objectives, the following steps are recommended:

1. Creation of a unified accounting system of farmers and farms;
2. Provision of consultations and monitoring of compliance with the recommendations;
3. Support for the activities of farmers (individual or group unions).
4. Due to the improvement of extension services:
 - improvement of farmers' skills
 - Improvement of the quality of services of Service Centers
 - Monitoring and control of implemented activities
5. Support of agriculture and the elevation of quality of work:
 - Support of fields of agriculture;
 - Accounting of farmers (groups), working in the field of agriculture;
 - Accounting of agricultural land;
 - Accounting of seasonal works;
 - Management of State Programs;
 - Management of expected risks.

Main functional concept of the information system constitutes in registration of farmer and accounting of the information accumulated around him/her. Consequent to the timely clerical work and due to the fact that the registration takes place on-site (in high mountainous regions) mainly by accounting data with the previous date, it is appropriate that the system itself registers farmer and assigns an unique registration code (so called ID) to which all remaining data and activities will be tied.



Pic.1

The system must unify the following data around a farmer:

- service of artificial insemination of domestic animal;
- service of agrochemical analysis of soil;
- farmer's certificate;
- farmer's card and connected periodic analytical data;
- rendered consultations and recommendations;

For further detailed information about the Functional Requirements for Agricultural Electronic Management System please refer to [Annex 23. Functional Requirements for Agricultural Electronic Management System of Ministry of Agriculture and ASC Word Document](#).

Additional information is available in [Annex 24: Farmers and Services Management Software Presentation](#), given to the Ministry of Agriculture on April, 2016.

G. Online Testing and Professional Development Portal: NGO Agrarian Movement Software

The main idea of the project is to create on-line testing system - a software for ICC consultants of the Ministry of Agriculture. This software creates an innovative mechanism for evaluation and enhancement of the professional skills of MOA ICC specialists and those who visit the portal to judge their knowledge of agriculture.

During the project we have conducted following activities

Mobilizing Materials: Activity was oriented on mobilization of resources (literature) written by Georgian scientists and provided by international organizations. After mobilizing these materials, the sorting process was conducted.

Developing Tests: After the collection of the above mentioned materials, the process of providing tests was started. Tests are provided by the experts who are scientists of relevant fields. Tests are provided for 11 priority areas of agricultural fields.

Designing of Software: The Software contains the tests. The questions for the tests are divided into three main categories. According to these categories each question has certain number of points:

1. Simple test - 1 point.
2. Medium test - 2 points
3. Difficult test - 3 points

Using this software, an ICC Specialist or visitor to the portal can test his/her professional competencies and view his or her score using the scoring indicators. One of the main advantages of the software is that it can be updated. There is a technical option to add fields of agriculture tests, add questions to each field and include new actions. So the software is very flexible in this sense that it can be managed by the IT staff of the MOA so that a manager of a department of ICC services can see:

1. Intensity of process - How many times does the employee/ICC consultant use the testing software (Once per week, every day, etc.)?
2. Results of testing - What kind of results are achieved by the ICC consultant and what are the scores or results of the tested ICC consultant in specific agricultural fields according to the collected points.

These two functions of software for the management of ICC department create the possibility of controlling the process of professional development of its consultants and for the consultants the software is the mechanism for developing their professional skills and also for demonstrating their professional abilities.

Developing the software version for Web-Portal - Our organization has an Agro-web-Portal. We are working to create the on-line version of testing in agricultural fields. This version will be accessible not only for ICC consultants, but for every interested person for testing his/her professional competencies.

Additional information is available in [Annex 25. Online Testing and Professional Development Portal: NGO Agrarian Movement](#) .

H. Field Guide and Chemical Management Spray Guide

This book provides information to help Georgian vegetable farmers recognize important plant diseases and insect pests affecting their crops and to develop and employ strategies for their control. The first chapter is an introduction highlighting the general principles of plant pathology for vegetables and melons. The chapter also discusses integrated concepts of disease management, which will be helpful in implementing correct preventive measures to reduce the risk from diseases. The second part of the book deals with diseases (caused primarily by bacteria, fungi and viruses) affecting specific vegetables such as tomatoes, cucumbers, cabbages, and other important vegetable crops and melons grown in Georgia. Vegetables and Melons covered in the booklet are ordered according to the Georgia alphabet. The field guide provides photos and charts, which will help users identify diseases by symptoms. The field guide also contains disease management strategies, which were developed to include the use of currently registered disease control chemicals (primarily fungicides) that have been approved by the Georgia Ministry of Agriculture.

[Annex 26: Identification and Control of Major Diseases and Insect Pests of Vegetables and Melons in Georgia](#)

[Annex 27: Chemical Management Guidelines for Control of Pests and Diseases of Vegetables and Melons in Georgia](#)

I. Atlas of Chemical Management of 29 Crops

The aim of creating pesticide application schemes-guidelines of basic crops of Georgia was to develop a supporting mechanism for local agro-extension consultants of the Ministry of Agriculture of Georgia

The guidelines are intended for extension consultants, working in MOA-ICC offices to provide consultations for farmers about safe and effective use of pesticides in concrete, local situations.

The form of guideline is a schedule.

Guidelines are created for each basic crop of Georgia (each guideline contains information about chemical protection of one crop). Guideline contains fungicides, insecticides, acaricides and herbicides, written in a determined order. It allows the consultant (even if he/she has low professional skills of plant's chemical protection) to provide recommendations after learning how to use the updated principles of product.

Products are created foreseeing the following main principles:

- Covering main diseases and insects of the main agricultural crops of Georgia
- Choosing pesticides so, that they were mixable for providing combined applications;
- Simple for usage (foreseeing low professional skills of Georgian extension consultants).

After creating the guidelines, the authors of this product have conducted relevant trainings for ICC consultants regarding using and updating the rules of guidelines.

[Annex 28: Atlases of Chemical Management for 29 Crops](#)

COMPONENT 3. CAPACITY BUILDING ON TECHNICAL SUBJECT MATTER

A. Capacity Building on Technical Subject Matter

In coordination with the MOA, a series of workshop topics were developed for each of the three years of SEAS. A broad range of topics were identified that pertained to agriculture and animal husbandry, as well as extension modern methodologies of program delivery and extension operations best practices.

SEAS recruited experts to conduct “train the trainer” workshops for the ICC field staff and lead farmers in all the nine regions and the Autonomous Republic of Adjara. Extension Specialists from UIUC, Texas A&M, University of California Davis, Ohio State University, Washington State University, Utah State University, as well as USDA experts from Washington, D.C. and upstate New York traveled to Georgia and led workshop and field trainings. Private sector and international NGO experts were recruited and provided training on video development and improvement of operations.

SEAS partnered with other organizations, including USAID-supported activities in Georgia like REAP (Restoring Efficiency to Agriculture Production) and Farmer-to-Farmer to recruit experts for technical subject matter training. SEAS partnered with the Israeli Embassy and the MOA to provide a two-week series of workshops throughout Georgia on greenhouse production and greenhouse construction and renovation.

Over the three-year period of SEAS, 104 workshops were conducted for 2,066 participants. These workshops were led by international and Georgian experts. In some cases Georgian scientists were mentored by U.S. extension specialists to hone their skills and develop a better understanding of extension program delivery. Field trials and demonstration plots were initiated in years 2 and 3 and will continue with a focus on vegetable grafting and highland pasture management. An extensive virtual library of SEAS sponsored workshop presentations will soon be available on the MOA website portal and the NGO Agrarian Movement website portal.

B. Field Trials and Demonstration Plots

SEAS has combined classroom training with field-based learning as an effective approach to not only train the MOA-ICC specialists but provide field trials and demonstration plots sites so that farmers and ICC staff may learn through field day activities. SEAS has worked in partnership with both the MOA SRCA and a Georgian based NGO, Agrarian Movement in the organization of field trials related to vegetable grafting. In Annexes 29 and 30 there are reports from both the Agrarian Movement and the SRCA as to their vegetable grafting activities.

A second area of emphasis and complimentary to the vegetable grafting demonstration plots is the SEAS initiative related to renovating and improving greenhouses of small producers and providing training on greenhouse production. A SEAS staff member, Edvard Shermadini, who is also a consultant expert on the FAO/ENPARD project has led this effort. SEAS has also partnered with Israeli MASHAV greenhouse experts who provided a 2 week course in March, 2016 in Georgia. In addition SRCA experts have also attended courses in Israel during the spring of 2016 to further improve their knowledge of innovative production and postharvest practices.

For more detailed information about these projects please review Annexes 29-33.

[Annex 29: Report about Project of vegetable Grafting Experiments in Tbilisi](#)

[Annex 30: SRCA Vegetable Grafting Report and Project Proposal](#)

[Annex 31: Report about Greenhouse Renovation and Reconstruction](#)

[Annex 32: Greenhouse Reconstruction Presentation to the MOA \(in Georgian\)](#)

[Annex 33: Final Report Growing Vegetables in Protected Environments "Train the Trainees"](#)

C. Special Events

National Extension Conference (December, 2014)

By the fall of 2014, the USAID/SEAS Activity had provided numerous training activities for the ICC employees on a variety of topics. However, the 23 two-day workshops held across the country by that time could not address all the administrative management concerns, the modern Extension methods, and the technical subject matter deficits of the ICC field office staff. A National Conference for Extension employees was proposed in early December to allow many of the new ICC district-based employees to receive additional training on topics that relate directly to all three Components of the SEAS Implementation Plan.

The conference was designed to bring awareness to the contribution that USAID is making to support agricultural development in Georgia while providing professional development for some 140 Ministry of Agriculture field staff. The Conference brought together key actors in Georgian Agriculture. Policy-makers, researchers, Extension workers and other practitioners had the opportunity to share their knowledge and experience, get feedback from their colleagues from Georgia and the U.S., and build new professional networks. The Minister of Agriculture and two Deputy Ministers addressed the audience during the Conference.

Special management training sessions were planned for the district office heads and regional coordinators during the Conference. These will support the development of improved policies for implementation of the public agricultural information and advisory service system in Georgia. Other topics on modern advisory service training methods, technical subject matter and Information-Communications Technology (ICT) were offered in the week as concurrent sessions. Six experts from the U.S. provided presentations and workshops on key topics. But, several concurrent sessions were led by faculty from the Agricultural University of Georgia (AUG), the International School of Economics at Tbilisi State (ISET), and the private sector. (The Agenda for the 2014 National Conference is included as an Annex to this report.)

The National Extension Conference was attended by 132 field staff (106 male and 26 female) from all 54 of the District ICC offices managed by the MOA. This was the first time for many of the ICC field staff to meet their colleagues in nearby districts and regions. The significance of having this exchange of ideas and the building of comradery among the ICC employees nationwide should not be minimized at this point in the development of the public information and advisory services system in Georgia. The Ministry began hiring new ICC field staff in April, 2013, and there was a rush to get the new hires mobilized in the district offices during the 2013 growing season. Thus, the orientation process of these new field staff was almost non-existent. This was a problem in achieving early tangible results.

Feedback received from conference participants indicated the National Conference was a major accomplishment and success for the SEAS Activity. It is the recommendation by the SEAS Activity leadership that the Ministry of Agriculture plan and budget for similar national conferences for ICC field staff in the future—even if not every year. Donors may not always be willing to fund the travel and lodging costs for the participants to attend such a conference.

National Extension Forum

The National Extension Forum (NEF) was organized in the framework of USAID activity – Strengthening Extension and Advisory Services (SEAS). The forum took place during the third week of February, 2016 at Hualing Hotel in Tbilisi, Georgia. This was a three-day forum; the overarching purpose was to promote policy dialogue and conduct a stakeholder analysis of existing agricultural extension policy and its future development with Georgian farmers.

In total, the NEF had 340 participants representing public, private, and civil society sectors including the Agricultural information and Consultancy centers (AICCs), LLC Scientific Research Center of Agriculture (SRCA), Ministry of Agriculture (MOA) Central Administration, Local Government Officials, Donors, Local Stakeholders and Cooperative members. Apart from raising awareness about extension policy and networking, the forum also provided thematic training sessions on agriculture for all interested participants. The themes were selected according to the needs and interests of participants.

The first day of the forum started with the welcoming speech by Ben Mueller, Chief of Party, SEAS. Then speeches were delivered by: Nodar Kereselidze, First Deputy Minister of MOA; Thomas Morris, Deputy Director, USAID/Georgia, Ketii Natriashvili, First Deputy Minister of Education and Sciences (MoES), and Javier Saenz Alvarez, Coordination Support Officer, FAO ENPARD projects. Following the opening speeches, panel discussions were led by David Galegashvili, Deputy Minister MOA, around Extension policy and its delivery methods.

The following session presented the preliminary results of SEAS research about extension policy presented by Professor Vladimer Baramidze at the Agricultural University of Georgia (AUG) who led the research project. This presentation was followed by an open forum discussion about the future of Extension Policy in Georgia.

The afternoon was devoted to panel discussions about Future of Rural Development in Georgia. Panel discussions included: Javier Saenz Alvarez, Coordination Support Officer, FAO ENPARD Projects; Lasha Komakhidze, Project Manager, ENPARD Ajara and Michael Steiner, USAID. At the end of the first day a share fair was organized, where local producers and other private companies, had a chance to exhibit their products and to network.

On the second day, Ben Mueller presented “Building Capacity of the New Extension Model.” Afterwards, First Deputy Minister of MOA Nodar Kereselidze, discussed the importance of coordination of donor efforts on extension. Following the morning session, a panel discussion was presented about Donor Supported Projects and included speakers from international donor implementing organizations: Ruediger Heining, Project Manager, UNDP; Lasha Dolidze, National Project Manager, FAO; and Ben Mueller, Chief of Party, USAID/SEAS Activity.

An international guest speaker, Carlos Mario Jaramillo, Director of Extension of the National Federation of Colombian Coffee Producers (FNC), presented the FNC experiences about Building a Modern Extension Organization, and discussed FNC Monitoring and Operations Software, which is used in Colombia for

monitoring Coffee growers and extensionists. Following the presentation on Building a Modern Extension Organization, ten 90-minute breakout sessions were conducted. It is important to note that the topics of trainings were chosen according to the interests of locals and AICCs' offices.

The third day was devoted to a number of panel discussions about using mass media to educate farmers. Speakers included representatives of GARB TV, Saperavi TV, Ajara TV, UNDP/Ajara and SRCA Media Experts. Following the panel discussions, breakout sessions of trainings were repeated from the previous day. Repeating sessions allowed participants to attend most of the trainings. At the end of the third day closing plenary remarks on how to use information from National Extension Forum was delivered by Head of Regional Development Department, MOA Shalva Kereselidze and Deputy Head of Regional Development Department, MOA Mariam Gelashvili. The Forum ended with providing certificates for the Forum Participants and SRCA representatives.

SEAS Closing Celebration

The USAID AOR for the SEAS Activity assisted in organizing a closing celebration event which took place at the Ministry of Agriculture in the closing week of the activity. A video of the closing remarks, can be accessed with the following link: <https://goo.gl/photos/hmfCEWEcxtyEqSSKA>. Those speaking included Minister Danelia, Ambassador Fuchs of the Israeli Embassy, AOR for SEAS Ms. Gall, First Deputy Minister Keredize and SEAS COP Mueller.

D. EAS Tools

Soil Test Special Initiative on Soil Fertility Management Train-the-Trainer

Through feedback from ICC field staff attending workshops in early 2014, it became evident that additional training on soil fertility and management was needed for the ICC district office personnel. This became more evident during training sessions in May 2014 conducted by Mosbah Kushad from the University of Illinois. While in Georgia, he introduced a teaching tool of an inexpensive soil test kit available in the United States. USAID agreed to let the SEAS Activity purchase multiple sets of these kits for distribution to ICC district offices in conjunction with in-depth training workshops. The Georgian Ministry of Agriculture was very supportive of this initiative. In total, 1,620 Luster Leaf Rapid-test Soil Kits were donated to the Ministry.

It is very fitting that the Ministry of Agriculture chose to focus efforts on soil fertility and analysis in 2014-2015. In 2014, the 68th United Nations General Assembly declared that 2015 should be the International Year of Soils to draw attention to the importance of soil in food security of all nations. The train-the-trainer workshops were scheduled in October 2014 and February 2015. Patricia Lazicki from the University of California-Davis and John Fouts from Washington State University were the workshop co-trainers. In October, John conducted the training sessions courtesy of the Farmer-to-Farmer Program in Georgia.

The same general format was used for all seven training activities. In all, 157 ICC field staff attended the seven 2-day training sessions—117 male and 40 female. Common characteristics were that all participants were very serious about their work, curious and eager to learn.

The aims of the workshop are as follows:

- a. Provide information on soil types and management.

- b. Develop recommendations on how extension and advisory services personnel should communicate methodologies of soil sampling and interpretation of soil test results.
- c. Teach district-based extension personnel how to identify and analyze farmers' production problems related to soil productivity.
- d. Demonstrate the use of a simple soil analysis kit to estimate the pH and levels of nitrogen, phosphorous, and potassium (N-P-K) in the farmer's soil. Distribute 30 kits to each district ICC office. At least 2 members of all 54 district offices received this training.
- e. Train extension agents in the interpretation of soil test results.

The concept behind the distribution of multiple soil test kits was to give the ICC field staff a mechanism to create interest on the part of farmers in their district in better understanding their soils. While not a prescription for the amount of fertilizer a farmer should apply for specific crops, the qualitative testing process will draw attention of the farmers. It also will showcase the information that is available at the MOA field offices. In the future, these local activities should encourage farmers to use more complete soil analyses that can only be provided by commercial soils laboratories in Georgia. Currently, small farmers are unwilling to spend the money for the laboratory analyses. Therefore, field staff of the Ministry will perform qualitative soil tests for some of the farmers in their district using the donated kits. (See Success Story on Soil Testing elsewhere in this report.)

In February 2015, 61 employees of 3 regional ICC offices attended workshops on soil test and analysis in Marneuli (Kvemo Kartli region), Signaghi (Kakheti region), and Mtskheta (Mtskheta-Tianeti region). The trainings were well received and a post-workshop survey revealed that 58 out of the 61 participants, or 95 percent, said that the training was relevant to their needs. The average rating on practicality and applicability of the workshop was 4.7 points out of 5. It is noteworthy that 83 percent of the workshop participants indicated that they would plan special meetings with local farmers to explain the importance of doing soil tests and using proper fertilizers. *"We will certainly work with farmers, so that more of them think of the necessity of soil analysis," says a participant from Mtskheta-Tianeti.*

To the question of "How has your understanding changed of the importance of soil pH?" 95 percent said it was somewhat better or much better. Similarly on the question of the "Importance of Major Plant Nutrients", 92 percent said that their understanding was somewhat better or much better. Then 81 percent said they would use the technique of taking soil samples on farmers' fields. *One participant said, "For the purpose of visualization, we will take soil samples from farmers' land plots and analyze them." Lastly, one trainee said, "By means of these trainings and the tool kits we have been given, we will be able to make farmers more interested in learning about their soil."*

Donation of Computers to all ICC District Offices and Regional Office Heads (64)

In early visits to District ICC offices across Georgia, SEAS Activity leadership discovered that offices either had older computer equipment or none at all. In several cases, employees were bringing their personal computers to the office for work. Internet connections also were very limited. In order for the new EAS System in Georgia to reach the thousands of small and medium size farmers, the computer capability at the district offices desperately needed to be upgraded. Computer technology is being used widely in other countries as a tool for advisory service personnel to obtain professional development and to facilitate the delivery of science based information to farmers. Although few farmers in Georgia are at the point of having computers and internet access, this tool is essential for ICC employees to communicate with other professionals within and outside the Ministry and to effectively search the

internet during problem solving activities to address farmer production and marketing problems. Plus, computers are needed for group presentations to farmers and to support needed mass media efforts.

Therefore, USAID approved the request to amend the FY14 work plan to include an initiative in Information/Communication Technology (ICT). The new initiative included the purchase and donation of 58 laptop computers and 6 desktop computers so that each District ICC office would have a new computer with appropriate software to communicate with the MOA offices in Tbilisi and to transfer knowledge to farmers as a result of the SEAS sponsored trainings in modern methods for Extension delivery and technical subject matter. As a result of the MOA establishing Regional Office Head positions, a laptop computer was assigned to each of them in addition to the computer provided to that District.

The new SEAS initiative in ICT also included the distribution of all the workshop visual aids and handout material for use on the new computers. Subject matter materials developed by the USAID/NEO project and the USAID/REAP project also were provided for the computers. It is noteworthy that the SEAS ICT Initiative coincides with the efforts of the MOA to increase the Internet access at each of the District ICC offices. Lastly, the ICT initiative included computer technology training for the headquarters office of the MOA IT Department plus training for 60 representatives of the District ICC offices. This training was essential to increase the capability of MOA personnel to fully use the newly available information/communications technology for professional development and program delivery.

GPS Instruments and Tablets

When the MOA determined to develop a software driven system for management of its field staff and consultations with farmers, the Ministry requested that the SEAS Activity make this important contribution to their New Extension Model. As noted in this report SEAS was responsible for providing the resources to the two companies, Direct Solutions Ltd. and NGO Agrarian Movement who have developed software applications for Farmers and Services as well as Online Testing and Professional Development of ICC staff.

However, in order to pilot and implement the Farmers and Services software, additional equipment was necessary in order for the software to fully function. SEAS contributed toward this pilot stage by purchasing advanced GPS equipment (two units) and advanced computer tablets that are needed to register and manage farmer activities in the field. SEAS purchased ten tablets to be used in all of the regions. Additional information about the specifications of the tablets and GPS instruments are available in Annex 34.

Another part of this pilot effort was the provision of two Digital GPS cameras to two different district offices to determine if this lower cost alternative could support the data and information needs of the district office as well as that of the MOA headquarters. These cameras have been successfully used for a USAID Activity in Afghanistan. Nikon COOLPIX AW130 Waterproof Digital Camera with Built-In Wi-Fi was the model purchased for the pilot evaluation. The U.S. cost per camera was about \$300. An assessment on their capabilities for use in Georgia will be forthcoming.

[Annex 34a. GPS Instrument Brochure](#)

[Annex 34b. Specifications for the Tablets.](#)

E. Photo Gallery

[ANNEX 35: Pictures for SEAS activities](#)

F. Partnership Building

Partnership Building

SEAS has been actively involved in building the partnerships among international donor organizations in support of MOA extension. Partners included extension-related USAID activities, universities engaged in agricultural studies and research, private sector companies (both national and international), and television media organizations.

SEAS has served as a bridge to connect departments and organizations within the MOA to work more closely with each other and farmer cooperatives, associations and lead farmers in communities. The following programs and organizations have been active partners with SEAS over the life of the activity:

Ministry of Agriculture

Minister and his team of Deputy Ministers,

Scientific Research Center for Agriculture

Department of Regional Development

Agency for Cooperative Development

Food Agency

USAID supported Organizations, USDA and PCV Program in Georgia

Farmer-to-Farmer

REAP (Restoring Efficiency to Agricultural Production)

NEO (New Economic Opportunities Initiative)

GGI (Georgia Good Governance Initiative)

Peace Corps

Zrda (follow-up to NEO)

International Donor Organizations

Embassy of Israel and MASHAV

UNDP (United Nations Development Programme) (Georgian project)

UNDP and the ENPARD (European Neighborhood Program for Agriculture and Rural Development) in Adjara

FAO (Food and Agriculture Organization of the United Nations)

Delegation to the European Union in Georgia

Georgian Government and University Partners

Agricultural University

Ministry of Education and Science including vocational colleges

Academy of Agricultural Sciences of Georgia

National Academy of Sciences of Georgia

Civil Society Bureau

Multiple municipality officials and governors

Multiple Georgian and international private sector companies and NGOs

National and regional television- GARB, Saperavi, and others

Ministry of Agriculture

Minister Danelia and his team of Deputy Ministers led by First Deputy Minister Nodar Kereselidze and Deputy Minister for Extension David Galegashvili have been strong partners in the development and implementation of the SEAS Activity. Khatia Tsilosani, Head of International Relations Department, Shalva Kereselidze, Head of Regional Development Department, and Deputy Head of Regional Development Department, MOA Mariam Gelashvili have all done an excellent job in the coordination of the District Offices and assisting SEAS develop its activities. Deputy Minister Gocha Tsopurashvili and Professor Dr. Levan Ujmajuridze have also been strong contributors from their respective departments. SEAS was fortunate because of its extensive involvement in field training to have developed strong partnerships at the regional and district levels with ICC specialists and District Office Heads as well as Region Heads. SEAS also partnered with Ministry of Agriculture of the Autonomous Republic of Adjara and the Agroservice Centre leaders as well as numerous District Office heads and specialists from Adjara.

USAID Organizations, USDA and PCV Program in Georgia

One of the hallmarks of the SEAS Activity has been the ability to develop partnerships with organizations that provide additional resources and expertise to the MOA and its ICC model. As listed above there are six USG organizations primarily funded by USAID and a new initiative with the Peace Corps, which have contributed to the development of the SEAS Activity. These projects and activities are Farmer-to-Farmer, REAP, NEO, GGI and Growth funded by USAID as well as the USDA and Peace Corps Program. Ms. Magda Menabde, Director of F-t-F was instrumental in assisting in the organization of multiple training workshops for the MOA staff as well as providing an expert to work on the operations field assignment highlighted previously. Mr. Louis Faoro, COP for the REAP Activity and his staff worked with SEAS to co-finance a country-wide training on important elements of the DCFTA for the ICC staff and lead farmers involved in or initiating export of their products to the EU. Mr. Kirk Ramer, COP of the NEO Activity was a valued partner for SEAS and shared his staff and experience in Georgia particularly as related to the SEAS Greenhouse Reconstruction and Production project. Mr. David Smith, COP of the GGI assisted with his group to initiate with the MOA as one of the first two ministries to undergo a functional assessment of their central administration. Mr. Brian King, COP of the Zrda Activity, met with the MOA and SEAS staff and committed to continuing to support the SEAS Greenhouse Renovation and Production project with a pilot program to demonstrate the feasibility of continuing this project nationwide. The SEAS expert who led this effort Edvard Shermadini was subsequently hired onto the Zrda activity to provide in-country

continuity as Edvard worked on NEO, SEAS and now Zrda. Michael Steiner and Demna Dzirkvadze from the USDA office at the Georgian US Embassy provided national conference support and agriculture research content throughout the implementation of SEAS. Finally due to the efforts of our AOR, Shamenna Gall, Stephen Smith, Director of the Georgian Peace Corps Program and his staff are in the process of developing a program between the PCV and MOA to place volunteers in selected ICC offices.

International Donor Organizations

SEAS was fortunate to have been able to develop strong partnerships with other international donor organizations and their implementing partners who were focusing on the MOA. The Embassy of Israel and their MASHAV Program were outstanding partners in assisting SEAS with its Greenhouse Reconstruction and Production project. Ambassador Fuchs was especially a strong advocate in this endeavor. The UNDP project in Georgia under the leadership of Mr. Ruediger Heining partnered with SEAS on their National Extension Conference and participation with the SEAS NEF. Follow-up collaboration with the MOA will continue in areas that SEAS has initiated. The UNDP/ENPARD supported project in Ajara also collaborated with SEAS with their participation in the NEF as well as field training activities in Ajara. Mr. Lasha Komakhidze provided strong leadership in support of the efforts of the MOA and SEAS to develop a “New Extension Model” in Georgia. FAO and the Delegation to the EU in Georgia also worked with SEAS and contributed through their participation to the SEAS/MOA National Extension Forum.

Georgian Government and University Partners

For an EAS model to succeed it is extremely important to develop strong partnerships with university researchers and the extension field staff. One of the hallmark accomplishments of SEAS, has been the development of bonds between the GE Agricultural University (AU) and the MOA both with its field staff in the ICCs as well as at the SRCA. SEAS recruited and involved as part of its staff 2 faculty members from the AU and developed strong ties to the AU. In one of its culminating activities SEAS organized a software testing application with the NGO Agrarian Movement whose Director is a faculty member at AU. The following is an excerpt from a letter of support to SEAS for this project from the Rector of AU, Dr. Lasha Gotsiridze:

“We believe that development of tests will have positive impact on improvement of professional skills of agricultural specialists. It follows that the Agricultural University expresses its willingness in participation of such types of projects. Agricultural University has scientific resources required for implementation of similar format projects.”

Numerous additional Georgian government, public sector and university organizations have provided support to the SEAS efforts. The Academy of Agricultural Sciences of Georgia under the leadership of Dr. Guram Aleksidze, provided support for the Extension Policy research project. The Ministry of Education and Science as well as the Civil Society Bureau have supported SEAS related activities outlined previously in this report. There were a number of strong local partnerships with the Governors of Municipalities where the ICC offices were also located.

Multiple Local and International Private Sector Companies and NGOs located in Georgia

One of the important pivots of the SEAS Activity was a shift toward accessing Georgian and international expertise with NGOs and private sector organizations located in Georgia for building capacity through

trainings and field activities. These contributions ranged from technical subject matter trainings, introduction of new financing opportunities for smallholder farmers (PAFAI), involvement of J Group Global in the greenhouse project, partnerships with multiple Farmers' Service and Training Centers in Gori, Lagodheki and other sites, and new initiatives and trainings with PR Academy, NERGETA, and Caucasus Genetics to name but a few of these organizations.

National and Regional television networks and stations- GARB, Saperavi, and others

An important contribution of the SEAS Activity was the piloting of a MASS Extension program where the key contributors for the dissemination of the SEAS Instructional video content were two primary partners: the GARB network of television stations and the national station, Saperavi. GARB was active in producing the 7 instructional videos as well as broadcasting thru their 25 regional stations with a viewership of 160,000 these videos and several additional introductory programs as well as coverage of SEAS's special events. Saperavi national station repeatedly broadcast all of the SEAS instructional videos. There are no estimates of their viewership but it is considerable given that they have national coverage potential. In addition, Mr. Dmitry Kostarov, owner of the station and VAPAP partnered on the production of three additional interview programs focusing on agricultural issues and plans to continue this practice in the future. Links to these GARB and Saperavi programs are cited previously in this report.

G. Final Thoughts

There are three important key takeaways that should be taken into consideration when addressing how to sustain the efforts of SEAS and the development of the MOA EAS model. All of these recommendations are directed to the donor organizations and programs that are designed to support the MOA ICCs and the development of an expanded and more robust assistance program for Georgian farmers. It is primordial that international donors and their implementers continue to develop a participative process of assessing the needs of the ICCs and meet and discuss these needs with the administrative team of the MOA in a responsive manner. It is far preferable to have some flexibility in the design of MOA activities and programs that reflects the issues and needs of the MOA and the farmers they serve.

Secondly there are greater opportunities for building partnerships among donor organizations and their implementers, among academic institutions and the MOA, involving other ministries with the MOA and developing public-private partnerships with both Georgian and international private sector and NGO organizations involved in the agricultural sector. There is a tendency that each organization follows its own set of guidelines and not seek out common points of interest in order to coordinate efforts.

Finally, there is a need to pilot projects based on donor-driven studies and when pilots are successful to expand these pilots to country-wide efforts. Studies and reports are extremely valuable to the MOA but as they move into greater implementation stages, it is important to support the MOA with tools, instruments, software, and specialized training. Dramatic improvement of the overall EAS effort might also occur with increased coverage as a result of mobile extension equipment or an additional vehicle per District Office. Donors should bear in mind these needs for basic equipment have great potential for the MOA and their ICC specialists. SEAS almost to a fault provided these tools and capacity building to the MOA so this effort should be built upon by the contributions of the other donor organizations to provide the tools, hardware and software and training opportunities so that the Georgian Ministry of Agriculture and their Extension and Advisory Services will continue to "put knowledge to work."