Science, Technology, Innovation and Partnerships (STIP)

Georgia has been selected by USAID Administrator Shah as one of two focus countries in the Europe and Eurasia (E&E) region for Science, Technology, Innovation, and Partnership (STIP). In response, USAID/Caucasus is examining how STIP can address the most significant development challenges and opportunities in Georgia. STIP approaches hold significant potential to increase the cost-effectiveness, impact, and sustainability of development assistance efforts in Georgia at a critical time in the country's political and economic transition.

As USAID moves forward with implementation of a five year Country Development Cooperation Strategy (CDCS), STIP approaches will be piloted and, where successful, scaled up to advance the Mission's three Development Objectives (DOs), which address democratic improvements; economic change; and public health. Post looks forward to close collaboration with Washington stakeholders as we work together to advance STIP in Georgia and the broader E&E region. Prior year, ongoing and planned STIP initiatives are outlined below.

Examples of Ongoing and Prior STIP Initiatives

Bringing transparency to political party financing: At the request of the State Audit Office of Georgia (SAOG), USAID provided examples of web-based electronic tools for tracking political party financing and a sample of a Money and Politics (MAP) database. Additionally, USAID provided technical assistance on SAOG's newly developed financial reporting forms, which were incorporated into the MAP database. Ahead of the 2013 Presidential and 2014 local elections, SAOG will continue to use the MAP database, enabling interested parties to track financial contributions to political parties.

Trade Facilitation System (TFS): The TFS is an example of successful public private dialogue. It is a fully digital and web-based "one-stop-shop" for all trade related business and administrative processes, and will eventually link all major stakeholders (customs, revenue services, inspections, railroad, airports, shippers, carriers, warehousemen, freight forwarders, etc.) into a seamless digital network where business can be conducted. The TFS or equivalent systems have had tremendous impact on trade efficiency in countries using them, greatly reducing transaction costs and making a country's ports more attractive as trans-shipment hubs.

Sakpatenti: This USAID-supported electronic registration system is being developed in cooperation with Sakpatenti, Georgia's National Intellectual Property Center. The system includes trademark registration, patents, and other property. At present, and according to an independent evaluation, there is a high level of satisfaction with the system. The agency and the logical framework of the intervention suggest that the new system could have widespread impact, including increased efficiency of agency personnel; increased efficiency of private sector applicants; decreased time costs (office visits, paperwork, research, etc.); and. increased accuracy and transparency. As an illustration, the Agency is considering reducing filing fees to account for the efficiency of electronic filing. The evaluation reviewed the cost-benefit analysis for the work, which monetized the immediate benefits at $2.5 million, or approximately a 700% return on investment, and considered the assumptions and methodology of the work to be accurate.

Partnership with Ferrero: The alliance with the makers of Nutella and Ferrero Rocher chocolates has helped Georgian farmers to learn new farming practices, boost their yields, and improve their incomes. USAID leveraged $1.5 million of Ferrero's resources to implement a training program for farmers at Ferrero's 4,000 hectare plantation in western Georgia. By increasing the quality and quantity of the hazelnut harvest, USAID will help growers open up new markets, increase exports, and help farmers get a better price for Georgian nuts. Despite being the 6th largest producer of hazelnuts worldwide, Georgia's hazelnut sector has low rates of productivity. Approximately 2,000 farmers will receive training through the program. The project will also work with individuals and companies to introduce quality standards, a market information system, and promote development of a farmer association. The new partnership will further USAID's goal to spur economic growth that increases incomes and creates employment.

Packaging technology: The ability of the Georgian fruit and vegetable sector to compete in foreign markets is crucial for the long-term economic development of Georgia. The packaging sector directly influences the overall competitiveness of fruits and vegetables. Wooden boxes, used since the Soviet era, are too heavy for modern handling. As a result, poor packaging was one of the main reasons that Georgian agricultural products could not gain access to higher value market segments such as large supermarkets and food retail chains. To address this problem, USAID stepped in to promote new production technology and the introduction of corrugated paper packaging that would increase the competitiveness of Georgian produce and, at the same time, increase sales for Georgian packaging companies. USAID promoted the production of corrugated produce packaging and a Georgian Seal of Quality that meets international standards and ensures consistency in the quality of packaging.

Greenhouse technology: Georgian farmers have long struggled with greenhouse operation and winter season vegetable cultivation. Despite a significant price premium for the vegetables in the off-season, crop yields were insufficient. Recognizing the potential for more effective greenhouse management, USAID started to provide targeted technical assistance on technology, managerial practices and modern agricultural techniques. USAID established a Knowledge Center and developed and organized a training program on effective greenhouse management, training 150 representatives from 52 greenhouse operators, educational institutions, investors and other stakeholders from 2011-2013. The direct benefits of USAID's greenhouse training are already evident. In two years, the heated greenhouse area in Georgia has quadrupled, and over $16 million has been invested in the sector. The average greenhouse crop yields grew significantly, with a six-fold increase in winter production of tomato and cucumber, which will replace 25% of imports in 2014. Soon, Georgia's greenhouse sector will be able to meet demand and effectively compete in the domestic market, while also preparing Georgia to enter and sustain its market share in foreign markets.

Bio-engineering technology to reduce erosion and increase household income: Non-sustainable agricultural practices and an increased precipitation in Keda Municipality of Adjara region of Georgia contributed to the intensification of erosive processes in local communities. In order to resolve and mitigate erosion issues, USAID-funded activity developed bioengineering technology to identify the most suitable location for the cultivation of so-called high-stem vines on erosive slopes, and distributed sampling of grapes to local households. As a result, slope erosion reduced drastically in the targeted area, while the population was able to derive additional incomes from sales of high quality wine. This activity and the bioengineering technology serve as a good model for replication by other communities to reduce erosion and improve local incomes.

Power and Gas Infrastructure Project (PGIP): PGIP is utilizing new technologies such as the horizontal directional drilling technology to cross the Rioni River in Samtredia region, in Kutaisi, Georgia. Developed in the U.S. from the oil field applications in the Austin Chalk area (a precursor to the shale gas developments), this technology facilitates underground crossing of pipelines below surface barriers during construction. PGIP is also utilizing smart grid technologies for a reliable, safe and effective power transmission grid in Georgia. This includes dissolved gas analyzers for power transformer cooling fluids and installation of phasor measurement units in the key power points of the electricity transmission network. These units will be collecting power quality data on a real-time basis and will be issuing remedial action orders, such as power shedding in case of trending system emergencies and faults in the power transmission system.

Renewable energy pilot activities: USAID has supported numerous renewable energy pilot activities across Georgia, including at Natakhtari secondary school. USAID installed a safe and ecologically-friendly technology that utilizes residual biomass for heating. The project promoted the use of residual bio mass as an affordable and economically profitable fuel. Other activities have promoted new generation heat pumps, small hydro-power systems, solar fruit and vegetable dryers, solar heating systems, biogas digesters, and the connection of remote villages to the electrical grid. USAID is supporting projects like these to promote the development of renewable energy and energy efficiency technologies in Georgia.

Partnerships for Enhanced Engagement in Research (PEER) Science: This ongoing Georgia PEER project focuses on the identification of potential seismic sources in the Caucasus using virtual-reality based data analysis and development of a cyber-enabled geosciences workforce in Georgia. In particular, researchers from Ilia State University (ISU) and the University of California Davis will use the new technology to map active faults and folds in the Caucasus, and ISU faculty will incorporate advanced visualization tools in their undergraduate and graduate courses. This project seeks to increase disaster resilience and promote Georgia's sustainable development.

Education Management Information System: With USG assistance, the development of the Education Management Information System (EMIS) with the modules on finance, management, and student attainments was completed. EMIS provides valuable data to MES to inform important policy decisions in the education sector. EMIS' standardized performance indicators allow for a meaningful cross-country comparison of the nation's progress toward education goals. In FY 2012, the USG continued preparing the future leaders of public and private sectors by building the capacity of Georgia's leading universities to deliver state-of-the-art programs, improving the quality of university faculty.

CISCO Academy: USAID has supported establishment of IT youth training centers in all major settlements in the breakaway region of Abkhazia which benefit over 700 conflict-affected students. All centers are offering basic entry-level computer courses, including lessons on Windows OS, Microsoft Office package, Internet, E-mail, online communication and online social platforms. These courses give youth in Abkhazia the chance to discover modern technology as well as communicate with peers outside Abkhazia. The project works with the CISCO Networking Academy to provide "IT Essentials" courses, together with the Georgian Technical University, in four centers in Abkhazia and plans to launch this training in all seven youth training centers. The project plans to launch the Cisco Certified Network Associate (CCNA) Discovery course, which lasts 8-10 months and will offer advanced professional

certification in IT networking as well as increase employment opportunities for graduates of the program.

Contraceptive supply and logistics: Nearly 800 health care facilities - mostly primary care clinics owned by the four major insurance companies - received USG-donated contraceptives. These facilities provided quality family planning services in 10 out of 11 regions of Georgia in last year. The USG-supported Logistics Management Information System (LMIS) is being used to avoid stock-outs and effective management of contraceptive supply in pilot facilities throughout Georgia.

Planned STIP Activities

In 2013 and 2014, USAID will work with educational institutions, think tanks, NGOs, private enterprises and governmental agencies to apply science, technology, and innovation to a wide range of development issues, including:

New technologies to promote fair and transparent elections: For 2013 presidential and 2014 local government elections, local Georgian NGO, the International Society for Fair Elections and Democracy (ISFED), will use innovative software to collect parallel vote tabulation (PVT) data on Election Day. Approximately 600 PVT observers will text Election Day observation findings via SMS that will be consolidated and analyzed in real time by the PVT software. The assessment of the data received from the randomly selected polling stations will be extrapolated nationally. ISFED will add a new feature to the system which will incorporate GIS mapping of the SMS data. In addition, USAID will provide assistance to the local NGO Georgian Young Lawyers' Association (GYLA) to upgrade its election complaints database. The system will allow GYLA to store information from observers on their assessment of complaints and appeals adjudication at election commissions and courts, and facilitate more timely analysis of trends and include advanced search options for the 2013 presidential and 2014 local government elections.

Climate change modeling and alternative energy technologies: USAID will assist the Government of Georgia to formulate and implement a Low Emissions Development Strategy (LEDS) and assist ten municipalities in energy conservation and the deployment of alternative energy (solar, hydro, biofuels) and energy efficiency technologies. In addition, the USG will support Georgia in creating greenhouse gas emissions monitoring, verification and reporting systems by introducing state of the art modeling and emissions projections, and building the capacity of the Climate Change Unit in the Ministry of Environment and Natural Resource Protection.

Power flow models will enhance power grid efficiency: The Black Sea Transmission Planning activity supports cooperation among electricity transmission system operators in the Black Sea region. FY 2013 resources will be used to prepare final reports for 2015 and 2020 runs of the Black Sea optimal power flow models; adopt terms of reference for studies on the reliability of aging transmission network infrastructure; and, adopt terms of reference for the study of grid code guidelines for clean energy projects. The activity will increase the efficiency of the power grid to transit clean energy from Georgia's hydropower plants. Links to regional energy markets will provide greater regional access to hydropower, thereby reducing greenhouse gas emissions.

Agricultural information system and analysis: USAID and USDA will assist the Ministry of Agriculture of Georgia (MOA) to develop an effective agricultural information system. It will assist the MOA to develop the data necessary for conducting analytical policy work in market outlook analysis, supply and demand analysis, forecasts of prices, and the construction of food balance sheets. Technical assistance and training to the MOA will focus on types and sources of agricultural data, principles of official statistics, the utilization of statistical software, and data analysis techniques.

e-Health: In FY 2013, USAID will continue to assist the Ministry of Labor Health and Social Affairs (MoLHSA) in building a national Health Management Information System (HMIS), called e-Health. E-Health allows MoLHSA to administer payments to health service providers in a timely manner, monitor the utilization of services by state program beneficiaries in real time, consolidate information about availability of services and pharmaceutical products nationwide, analyze morbidity and mortality trends, and inform decisions with reliable data and evidence. Moreover, e-Health has a portal oriented to the general public, which informs citizens about their healthcare entitlements, various types of health services, and medical facilities.

New technologies to improve waste management: USAID will support the establishment of a modern waste management system in Georgia by introducing new technologies to Georgia's waste management and recycling facilities. This activity will support the establishment of waste recycling and organic waste composting facilities, develop waste collection tariff system at the municipal or regional levels, prepare the design of new modern landfills that meet international standards, and promote new technologies such as waste-to-energy, biomass and biofuels to lower methane emissions and promote renewable energy sources.

Geographic Information System (GIS): In 2013, GIS will be used as a management tool to inform USAID programmatic decisions. The Mission will use GIS to improve performance management and monitoring, inform project design, and strengthen coordination with other USG and donor programs.

Public-Private Partnerships: Business-friendly reforms initiated by the new government over the past year may open more opportunities for the Mission to engage with the private sector and pursue potential public-private partnerships and global development alliances. The Mission will strive to build public-private partnerships in the agricultural sector if/as opportunities arise. A new activity will be launched in 2013 to expand the number, quality, competitiveness, and profitability of agribusinesses serving small-holder and emerging commercial farmers in Georgia by providing demand-driven technical assistance and grants to qualified enterprises. Facilitating the entry of new agribusinesses to the Georgian market and expanding the operations of existing enterprises will create new jobs in the agriculture sector, improve the availability of high-quality inputs and machinery services for farmers, and strengthen markets for agricultural goods and services in the country. Another new activity will be launched to help Georgia provide businesses with a predictable and consistently applied business environment in which the legal and regulatory framework is fairly and transparently applied. In addition to facilitating dialogue between public and private entities on economic governance and policy reform, the activity will facilitate public-private partnerships, such as those that aim to reduce administrative burdens for businesses. Although specific partnership opportunities and resource partners have not yet been identified for these two new activities, the Mission's past experience, such as its successful global development alliance in the transportation/logistics sector with multiple private companies and the GOG to rationalize transportation/logistics regulation and systems, and in the hazelnut sector with the global confectionery company Ferrero International to improve hazelnut production and yields, suggest good prospects for building viable public-partnerships in the areas of economic governance and agriculture.