



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



FINAL REPORT

FEED THE FUTURE GHANA AGRICULTURE POLICY
SUPPORT PROJECT



USAID
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Cover photo: A worker from Victory Farms Ltd. in Koforidua properly drying maize seed after harvest. Through the Agriculture Policy Support Project's training on quality management processes, seed producers now effectively dry their seed to ensure proper moisture content to conserve its viability, quality, and to prevent molding during storage. (Credit: Agriculture Policy Support Project)

DISCLAIMER

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ACRONYMS

1D1F	One District One Factory
ADVANCE	Agricultural Development and Value Chain Enhancement II
APR	agriculture performance review
ASWG	Agriculture Sector Working Group
CAADP	Comprehensive Africa Agriculture Development Program
CAPI	computer-assisted personal interviewing
CEPA	Center for Policy Analysis
CRI	Crops Research Institute
CSO	civil society organization
DUS	Distinctiveness, Uniformity, and Stability test
ECOWAS	Economic Community of West African States
FASDEP II	Food and Agriculture Sector Development Policy
FBO	farmer-based organization
FinGAP	Financing Ghanaian Agriculture Project
GADS	Gender and Agriculture Development Strategy
GARDJA	Ghana Agriculture and Rural Development Journalist Association
GLDB	Grains and Legumes Development Board
GCX	Ghana Commodity Exchange
GIMPA	Ghana Institute of Management and Public Administration
GIRSAL	Ghana Incentive-Based Risk-Sharing Agriculture Lending
GiZ	Gesellschaft für Internationale Zusammenarbeit
GSID	Ghana Seed Inspection Division
HAG	Hunger Alliance of Ghana
ICT	information and communication technology
IFPRI	International Food Policy Research Institute
ISSER	Institute of Statistical, Social and Economic Research
JSR	Joint Sector Review
LBC	licensed buying company
LOA	length of activity
M&E	monitoring and evaluation
MAASI	Mobilizing Action Towards Agriculture Sector Improvement

METASIP	Medium Term Agricultural Sector Investment Plan
METSS	Monitoring and Evaluation Technical Support Services
NAFCO	National Food Buffer Stock Company
NAIP	National Agriculture Investment Plan
NARI	National Agriculture Research Institutions
NASTAG	National Seed Trade Association of Ghana
NETRIGHT	Network for Women's Rights
NORPRA	Northern Patriots for Research and Advocacy
NSC	National Seed Council
PFJ	Planting for Food and Jobs program
PPMED	Policy, Planning, Monitoring and Evaluation Directorate
Re-SAKSS	Regional Strategic Analysis and Knowledge Support Systems
RUWA	Rural Women Association
SAKSS	Strategic Analysis and Knowledge Support Systems
SAS	statistical analysis software
SIRDA	Savannah Integrated Rural Development Aid
SMIFS	Seed Market Industry Framework and Strategy
SRID	Statistics Research and Information Directorate
UPA	urban and peri-urban agriculture
URBANET	Urban-Rural Network
VCU	Value for Cultivation and Use
WIAD	Women in Agricultural Development Directorate

EXECUTIVE SUMMARY

BACKGROUND AND CONTEXT

Ghana's agriculture sector has enormous potential. Its success is vital to driving inclusive economic growth, lifting the most vulnerable out of poverty, and maintaining the stability that has allowed Ghana to become a leader in West Africa. As of the writing of this report, Ghana is a major contender for the fastest growing economy in the world, on track to expand by 8.3 to 8.9 percent between 2017 and 2018. Although agriculture's share of gross domestic product has decreased in recent years, it continues to be fundamental to Ghana's economy and is the largest source of employment in the country, especially for women. Approximately 50 percent of the population works in agriculture, with approximately 80 percent of women in Ghana depending on farming activities for their livelihoods.

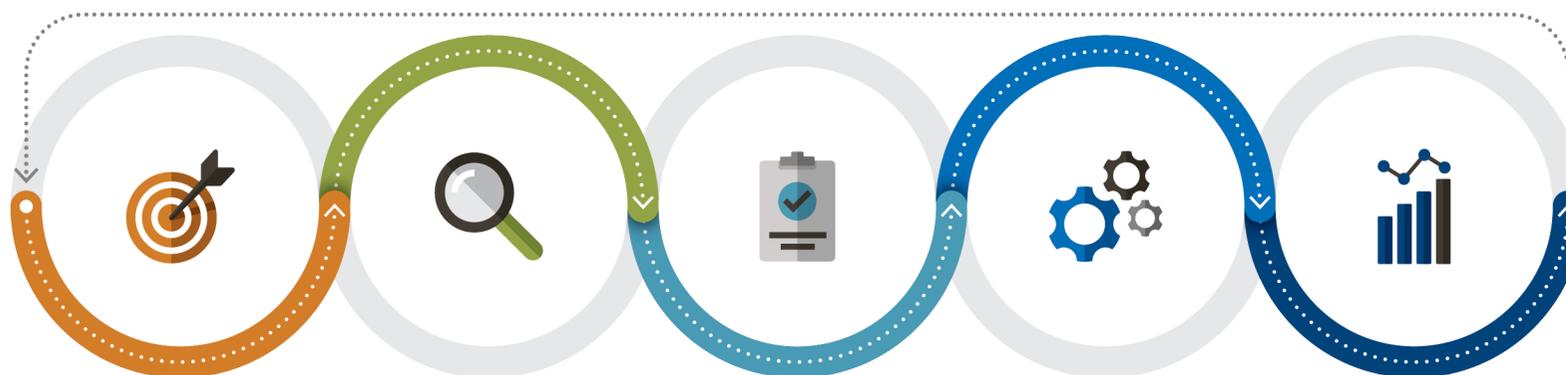
In October 2009, Ghana signed the Comprehensive Africa Agriculture Development Program (CAADP) Compact, committing to a set of goals and principles for reducing poverty through accelerated agricultural investment and growth. Implementation of this compact is outlined in the country's two phases of the Medium-Term Agricultural Sector Investment Plan (METASIP), from 2011 to 2015 and from 2015 to 2017, which provide a basis for coordinating public and private investment under Ghana's Food and Agriculture Sector Development Policy (FASDEP II). Modernization of the agriculture sector requires policies and programs that support effective and efficient functioning of production systems and agricultural markets. While Ghana has experienced much needed growth and development in the agriculture sector, the Ghanaian government has identified many opportunities to address remaining challenges to unlock its full economic potential.

To address these challenges, the U.S. government launched the five-year, \$15 million Feed the Future Agriculture Policy Support Project in 2013 to increase the capacity of the Ghanaian government, the private sector, and civil society organizations (CSOs) to implement evidence-based policy formation, implementation, research, and advocacy and perform rigorous monitoring and evaluation (M&E) of agricultural programs implemented for METASIP.

THE AGRICULTURE POLICY SUPPORT PROJECT APPROACH

Government policies are critical to addressing food security challenges and catalyzing agriculture sector growth for any country. During the past five years, the Agriculture Policy Support Project worked to provide Ghanaian policymakers with the necessary capacity, tools, and mechanisms to design, analyze, implement, evaluate, and communicate policies. Simultaneously, the project mobilized private sector organizations, including civil society and media, and honed their organizational and policy advocacy skills to conduct public-private dialogue. The Agriculture Policy Support Project's flexible, demand-driven approach positioned Ghanaian counterparts at the forefront of project implementation to facilitate reform and promote local ownership and accountability. While doing so, the project strengthened long-term capacity, systems, and a culture of learning to sustain inclusive, evidence-driven reform at every stage of the policy lifecycle (Exhibit 1).

EXHIBIT 1. EXAMPLES OF PROJECT RESULTS AT EACH STAGE OF THE POLICY LIFECYCLE



IDENTIFY PRIORITIES

- Supported METASIP and SAKSS to revive roles and meetings
- Trained ministry staff in policy identification and analysis
- Embedded policy advisor at the ministry to assist in policy identification per political economy needs

INVESTIGATE SOLUTIONS

- Strengthened the ministry's Policy Unit to improve policy analysis
- Commissioned 25 assessments, policy reports, and high-quality research papers
- Reinforced linkages between the ministry and research community

DRAFT AND APPROVE POLICY

- Provided technical assistance to government to draft, analyze, consult, validate, and implement 25 policies and/or legislation
- 68% of these instruments are now either at the approval and/or implementation stages

IMPLEMENT AND EVALUATE

- Trained METASIP implementation institutions in information technology and data management for agriculture
- Supported the ministry's Policy Unit to analyze current programs to inform performance
- Supported three platforms that held more than 120 public-private dialogues to discuss agriculture policies and programs

IMPROVE AND ADAPT

- Provided technical assistance to review and adjust ongoing policies and programs
- Supported government to adopt significant components of Seed Policy
- Facilitated adoption of institutional architecture reforms for improved policy formulation
- Facilitated adoption of enhanced guidelines for large-scale land transactions by Lands Commission

From its inception, the project planned an exit strategy, implementing activities that would strengthen and sustain agriculture policies beyond the life of the project (see Exhibit 3, next page). We built sustainability into activities’ designs to continue attracting the interest of public and private agriculture sector stakeholders, including development partners, after the project ends. The Agriculture Policy Support Project has achieved its exit strategy objectives and, as this report will demonstrate, the project’s contribution to strengthening the agricultural policy process has been relevant and significant.

HIGHLIGHTS OF TECHNICAL ACTIVITIES AND RESULTS

The Agriculture Policy Support Project had an ambitious mandate. The project’s collaboration with many public and private organizations led to the project’s wide geographic span — working in 79 of 216 districts and in all 10 regions of Ghana (see Exhibit 2). Collaboration focused on the various stages of the policy lifecycle to improve evidence-based policy reform and implementation. The project commissioned research, strengthened public-private dialogue, and provided capacity building, technical assistance, logistics support, and information and communication technology (ICT) and office equipment. In addition to supporting Ghanaian government initiatives, the project coordinated implementation with Feed the Future and other development partner projects to leverage funds and expertise to magnify results. The project achieved results across three components, summarized in Exhibit 3.

EXHIBIT 2. PROJECT REACH



EXHIBIT 3. PROJECT EXIT STRATEGY

LOCAL RESEARCH CAPACITIES STRENGTHENED

- Increased production of relevant technical and statistical reports that provided detailed methodologies with replicable results and outcomes, including gender-sensitive analysis, to meet government and civil society needs.
- Engaged research institutions effectively and continually in the policy process.
- Increased four local research institutions' capacity to conduct relevant agriculture policy research.

GHANAIAN SEED INDUSTRY STRENGTHENED

- Supported NASTAG as the primary force leading the uptake of improved high-quality seeds in Ghana and as the champion of key policy reforms for modernizing the seed industry.
- Facilitated NASTAG and the Ghanaian government's commitment to implementing the short-term recommendations from the project's Seed Market Industry Framework and Strategy study (3-5-year plan).
- Strengthened the regulatory role and capacities of the Ministry of Food and Agriculture through technical assistance and training.
- Supported the National Seed Council to resume its regular meetings to provide overall policy guidelines, approve necessary technical procedures for the benefit of the seed industry, and follow up with existing seed-related government programs.



THE MINISTRY'S POLICY UNIT STRENGTHENED

- Strengthened the ministry's human capacity, specifically the Policy Unit, to conduct policy analysis continually to provide relevant, timely advice to the ministry's principals.
- Equipped the Policy Unit with ICT tools and provided logistics support to enable its staff to undertake its work.

CIVIL SOCIETY AND PRIVATE SECTOR INVOLVEMENT IN THE AGRICULTURE POLICY PROCESS STRENGTHENED

- Strengthened three dialogue platforms (NASTAG, HAG, and NETRIGHT) through grants to promote and improve civil society participation in the agriculture policy process.
- Improved platform members' understanding of the policy environment and how to influence and lead policymaking.
- The platforms developed clear mission statements, defined growth strategies to expand membership, and increased capabilities to build members' capacity and provide them tangible benefits.
- Improved platforms' effective communication with media.
- Supported NASTAG, HAG, and NETRIGHT as they became the legitimate representatives of their respective constituencies.

Component 1. Policy Formation and Implementation: Policy Process of Evidence-Based Decision-Making Related to Food Security Improved

Ghana's agricultural sector faces various challenges that stymie sector growth in technology and infrastructure and weaken policy analysis. The Agriculture Policy Support Project's development hypothesis hinged on the significant role that appropriate agriculture legal, technical, and policy considerations play in creating the enabling environment to address Ghana's food security challenges and attract increased private sector investments to make agriculture markets more efficient and competitive. Accordingly, the project collaborated with the country's Ministry of Food and Agriculture — which became its main partner — and other government ministries, departments, and agencies. This collaboration worked through a three-prong approach to policymaking and reform: 1) policy identification, 2) policy formation, and 3) policy validation and implementation.

The project mentored four of the six agricultural economists at the Ministry of Food and Agriculture's Policy Unit across these three areas to strengthen the unit's main role of providing policy analysis and policy brief development to ministry management. This strengthened the ministry's capacity for rigorous policy analysis to support evidence-based policy decisions.

Policy Identification

Project partners — primarily METASIP implementing institutions, such as the Ministry of Food and Agriculture and its directorates, the METASIP Steering Committee, and the Strategic Analysis and Knowledge Support Systems (SAKSS) nodes — identified sector issues but lacked experience to translate these issues into specific research needs or policies to be assessed. METASIP provides the basis for coordinating public and private investment for Ghana's FASDEP II. The project reinforced these institutions by building their capacity for evidence-based research and policy identification in line with METASIP policy priorities. The project also trained METASIP implementing institutions and the Ministry of Food and Agriculture to improve their understanding of the entire policy cycle.

[The project's] training and mentoring for the Policy Unit is the first of its kind in more than two decades of the Ministry of Food and Agriculture's history. We now can fulfill our role to provide evidence-based policy advice.

— DANIEL OHEMENG-BOATENG,
DIRECTOR, POLICY, PLANNING,
MONITORING, AND EVALUATION,
MINISTRY OF FOOD AND
AGRICULTURE

Policy Formation

In addition to promoting policy reforms through advocacy and research activities, the project also engaged government counterparts, particularly the Ministry of Food and Agriculture, to respond to their priorities in a demand-driven approach to promote the development, review, and revision of existing policy instruments to enhance food security and establish an enabling environment for increased private sector investments in agriculture. The project supported the Ministry of Food and Agriculture to pursue a reform agenda to initiate, analyze, validate, and implement 25 policy instruments across eight policy areas. Examples include redrafting a land bill,

overhauling Ghana’s irrigation policy, and pursuing a comprehensive set of reforms in legal and technical frameworks that govern the seed industry.

These reforms contribute to an enhanced enabling environment that improves, for example, access to land and opens opportunities for private sector investment and participation in irrigation infrastructure and high-quality seed supply. The project encountered these instruments at various stages of development in the policy cycle, undertaking a bold agriculture policy reform process that has not been seen in Ghana in the past 25 years (see Exhibit 4). The project started with 17 out of 25 policy instruments at the “analysis” stage but was able to push 17 through to “approval” and/or “implementation.” This achievement is critical when reflecting on past policy movement. For example, the Plant and Fertilizer Act was passed into law in 2010. However, the complementary Seed Regulations were not harmonized with Economic Community of West African States (ECOWAS) protocols or with seed industry needs. There was no further movement in the government until five years later when the project provided this critical support to appropriately revise the Seed Regulations, which are waiting for final parliamentary approval, and to develop and revise technical procedures to improve the act’s implementation. This project-supported process took three years to achieve. Additional examples are provided throughout this report.

EXHIBIT 4. THE PROJECT HELPED PUSH 68% OF TARGETED LEGISLATION TO THE FINAL “APPROVAL” AND “IMPLEMENTATION” STAGES

Stages of the Policy Process	Status at Start	Status at End
Analysis	17	1
Stakeholder Consultation/ Public Debate	2	1
Drafting or Revision	4	6
Approval (legislative or regulatory)	2	4
Full and Effective Implementation	0	13
TOTAL	25	25

The project also supported the Ghanaian government with critical assessments that provided evidence and led to policy recommendations. These include assessing the METASIP I and II policy and investment frameworks, evaluating the status of agriculture insurance in Ghana, and conducting a situational analysis of Ghana’s agriculture marketing. The government is using these findings to develop its new policy strategy to support agriculture development. Findings informed strategies on how to reduce risk for agriculture financing and how to modernize agriculture marketing to promote market efficiency.

Policy Validation and Implementation

The project’s interventions included collaborating with the Ministry of Food and Agriculture and the Regional Strategic Analysis and Knowledge Support Systems (Re-SAKSS) program to revive METASIP and local SAKSS policy platforms. The collaboration led to improved understanding of the policy cycle, more informed dialogue, and mutual accountability for the success of the policy process (see METASIP Implementing Institutions Improved Capacity to Perform Throughout Policy Cycle box, next page).

The project also leveraged resources with Feed the Future projects such as Africa Lead and the Monitoring and Evaluation Technical Support Services (METSS) to strengthen the ministry's Policy, Planning, Monitoring and Evaluation Directorate (PPMED), the Agriculture Sector Working Group (ASWG), and the Joint Sector Review (JSR). The project focused resources on PPMED to lead the coordination of ASWG and JSR. In parallel, Africa Lead and METS focused resources to strengthen ASWG's and JSR's operational management. Project support to PPMED also included the production of the Agriculture Sector Progress Report, which assesses the factors that contributed or limited annual sector performance.

METASIP IMPLEMENTING INSTITUTIONS IMPROVED CAPACITY TO PERFORM THROUGHOUT POLICY CYCLE

- Information technology and data management in agriculture
- Leadership and governance
- Improved knowledge and practice of policy evaluation
- Project design, implementation, and performance measurement framework
- Survey research methods
- Quantitative data analysis using SPSS and Stata software

In addition, the project developed the computer-assisted personal interviewing (CAPI) system, a cutting-edge technology for the ministry to improve data collection efficiency and data credibility for evidence-based policy decision-making. The project trained ministry staff at the national and district levels on its use. The project-supported CAPI pilot resulted in the Ministry of Food and Agriculture launching the system to be used for the 2018 national agricultural census.

The project's technical assistance, training, and logistical support to the ministry's Policy, Planning, Monitoring, and Evaluation Directorate and the mentoring and coaching program for the Policy Unit have improved the ministry's capacity to carry out policy analysis, follow up on programs, and develop policy briefs to inform and advise management. The ministry and the Institute of Statistical, Social, and Economic Research (ISSER) will continue the Policy Unit's mentoring program. PPMED is institutionalizing and continuing the project's work by initiating presentations of the Policy Unit's work at the ministry's weekly directors' meetings, chaired by the chief director. Through this effort, the unit's policy analysis research and recommendations will inform ministry leadership and establish a common vision for policy direction and implementation.

Component II. Policy Research: Availability of Rigorous Policy Analysis for Evidence-Based Policymaking Improved

The policy research objective was to enhance the Ghanaian government's capacity to perform high-quality research to support and implement METASIP and to respond to research priorities aligned with the dynamics of the agriculture sector's political economy. The Agriculture Policy Support Project collaborated with seven local universities, research institutions, and think tanks to conduct agriculture policy studies, special studies, assessments, reports, and analyses of national issues to provide empirical evidence to inform policymaking. The project and the Ministry of Food and Agriculture jointly selected the research studies. As a result of project-sponsored training sessions, the ministry, METASIP's steering committee, and the SAKSS nodes identified priority agriculture policy research topics.

The project’s research portfolio comprises 25 agriculture policy research papers, special studies, assessments, and reports, including one doctoral dissertation, and a master’s thesis. These cut across key agricultural areas, including analysis of existing government programs; agricultural production, inputs, insurance and marketing; soil fertility and sustainable land management; food security; gender; and technology. Exhibit 5 highlights examples of project-supported, evidence-based research that are increasing the wealth of knowledge for decision-making and improving the agriculture sector (see Annex B for the 25 research topics and expected impacts). Peer reviewers, including Iowa State University professors, ensured high-quality agriculture policy research standards for 15 of the studies. The project shared the research studies’ findings and recommendations during two agriculture policy research summits and other events that convened researchers, ministry policymakers, the private sector, development partners, and other stakeholders. The ministry’s leadership recognized these engagements as crucial for consolidating its evidence-based policymaking.

EXHIBIT 5. EXAMPLES OF PROJECT RESEARCH TO IMPROVE AGRICULTURE SECTOR

METASIP/SAKSS THEMATIC FOCUS	GHANAIAN RESEARCH INSTITUTION	STUDY	FOCUS & EXPECTED IMPACTS
Food Security and Emergency Preparedness	University for Development Studies	<i>Assessment of the Implementation of Planting for Food and Jobs Program in Ghana: Lessons and Ways Forward</i>	The study provides a thorough assessment of a major Ghanaian government initiative in food security —the Planting for Food and Jobs program, in 2017 — using quantitative and qualitative tools to identify challenges and opportunities and to provide recommendations for improving implementation.
Increased Growth in Incomes	University for Development Studies	<i>Changing Access and Use Pattern of Land in Urban and Peri-Urban Areas: A Threat to Agricultural Production?</i>	By assessing the impacts of the use of land for urban and peri-urban agriculture areas, study provides policy recommendations to the Ghanaian government for sustainable management of land and environment. Implementation of the recommendations will streamline and save peri-urban and urban agriculture from competition for land coming from other sectors of the economy.
Increased Competitiveness and Enhanced Integration into Domestic & International Markets	Centre for Policy Analysis	<i>Evaluation of the Ghana Commodity Exchange (GCX) and Warehouse Receipt System (WRS) – Identifying the Building Blocks for Commodity Trading in Ghana</i>	Assessment of the GCX helped to identify building blocks for technical and financial assistance to establish a well-functioning commodity market that will promote efficiency in Ghana’s agriculture marketing to attract increased private investments into the sector.
Sustainable Management of Land and Environment	University for Development Studies	<i>Documenting and Assessing the Various Sustainable Land and Water Management</i>	Farmers will greatly benefit if extension services understand and provide information on the water management practices assessed in the research, thereby improving the overall condition of agriculture production in Ghana.

METASIP/SAKSS THEMATIC FOCUS	GHANAIAI RESEARCH INSTITUTION	STUDY	FOCUS & EXPECTED IMPACTS
		<i>Technologies That Can Be Adapted and Used for Extension Service Delivery</i>	
Science and Technology Applied in Food and Agriculture	University for Development Studies	<i>[Doctoral dissertation] Productivity Heterogeneity of Rice Production in Ghana: Policy Implications for Farmer Innovations and Improved Agricultural Technologies</i>	This study researched gender dynamics in rice production and recommended to policymakers the technologies that will enable women farmers to increase productivity. Adoption of the recommended technologies will support smallholder women farmers in Ghana to address their resource constraints, help increase their productivity and incomes, improve their livelihoods, and reduce poverty.
Improved Institutional Coordination	Council for Scientific & Industrial Research - Science and Technology Policy Research Institute	<i>Qualitative Study of Gender Responsive Agricultural Extension</i>	The study concludes that agricultural programs that deliberately targeted gender in extension activities benefited women more than men. Implementation of recommendations will lead to an increase in access to productive resources for women, including access to agriculture extension services, land, and adoption of new technologies, and will thereby enhance women's productivity and incomes.
Enabling Environment for Private Sector Investment	Agriculture Policy Support Project	<i>Seed Market Industry Framework and Strategy (SMIFS) Study</i>	SMIFS articulates a medium-term seed sector growth development strategy. The study emphasizes the key role of the private sector in establishing a sustainable and profitable seed industry in Ghana. The adoption and implementation of recommendations will help fast track the country's seed development effort and ramp up seed uptake, which will increase agriculture productivity in Ghana.

To sustain the availability of research analysis, the project provided four research institutions with modern ICT equipment, statistical software packages, and training for researchers to perform a range of rigorous statistical modelling and data analyses. With improved research capacity and new linkages between local research institutions, universities, and policymakers, research institutions are working more effectively with the government and METASIP implementing institutions to formulate evidence-based policy in Ghana.

In parallel, the ministry and the research entities have strengthened their links and are working to continue interacting in the identification, formulation, validation, and follow-up of the research studies. For example, the ministry and ISSER will continue organizing the agriculture policy research summits that the Agriculture Policy Support Project initiated, transforming them into an annual forum on agriculture policy research concerns, which has never existed before in Ghana.

Component III. Policy Advocacy: Voices of Civil Society, Private Sector, and Media in the Public Policy Process Clarified and Amplified

The participation of private sector organizations, including civil society and media, in agriculture policy formation is paramount to the development of the country's agriculture sector. However, they have not been present in dialogue with public officials despite wide acknowledgement of their importance. Weak organizational and advocacy capacity hinder these entities efforts to create an enabling environment to expand private sector investment opportunities in Ghana's agriculture sector.

The Agriculture Policy Support Project partnered with private sector organizations to improve and increase their participation in the policymaking process through a strategy that included:

- Grants to promote and strengthen public-private dialogues at the district, regional, and national levels for food security reforms, which ultimately will lead to the institutionalization of dialogue platforms;
- Grants and training for organizational and advocacy capacity building to enhance pro-business agriculture sector reforms, leading to stronger Ghanaian organizations that will continue advocating for policy reforms and defending the interests of their membership; and
- Leveraging policy advocacy efforts through partnership with other Feed the Future projects to enhance development impacts.

Grants for Public-Private Dialogue

The Agriculture Policy Support Project's grants to civil society and private sector organizations such as Savannah Integrated Rural Development Aid (SIRDA), Rite 90.1 FM, Rural Women Association (RUWA), Network for Women's Rights (NETRIGHT), and Hunger Alliance of Ghana (HAG) among others, enhanced public-private dialogue at district, regional, and national levels. The dialogues amplified the voices of the private sector in the policymaking process, drawing policymakers' attention to the private sector and women farmers' challenges in agriculture development. For the seed sector specifically, the project supported formation of the National Seed Trade Association of Ghana (NASTAG), which has become a critical, unified private sector voice of the seed sector and now is championing needed policy reforms to increase the supply of high-quality seeds and to modernize the industry.

Grants and Training for Pro-Business Reform

The project provided targeted training to private sector, civil society, and media to build their capacity to advocate in the public policymaking process and contribute to agriculture policy reforms. Training included policy analysis, advocacy and media advocacy, and writing compelling agriculture stories. This support has enabled CSOs to scale up their agriculture and gender policy campaigns, increase services to their members, receive funding from other sources and, in the case of the media, receive international recognition.

Partnership Synergies

The Agriculture Policy Support Project collaborated with Feed the Future and other USAID projects, as well as other donor projects to strengthen policy advocacy efforts and create synergies for development impacts. For example, within the Feed the Future portfolio, the project worked with the Agricultural Development and Value Chain Enhancement II (ADVANCE II) project to train farmer-based organizations' (FBOs) executives and networks in policy advocacy, which strengthened the policy process at the local level. The project's collaboration with USAID's Northern Ghana Governance Activity to monitor and provide expertise to implement district-level public-private policy dialogue recommendations resulted in strengthened participatory democracy (see Empowering Local Governments to Make Own Laws box). The project combined efforts with the Feed the Future

Agriculture Technology Transfer project leading to the growth of NASTAG and its emergence as the undisputed private sector organization that represents the interest of the seed value chain in Ghana. This collaboration enabled the project to introduce policy advocacy to a wider group of FBOs that were receiving support from ADVANCE II on agriculture productivity. Also, it created the opportunity for seed interventions to continue after project closeout.

The three public-private dialogue platforms supported by the Agriculture Policy Support Project focused on strengthening food security and the business environment, on mainstreaming gender into agriculture policy, and on promoting and leading changes in national seed policy, including institutional and program reforms. All three platforms have contributed to championing and making the private sector's voice heard in agriculture policymaking. Each platform has generated strategic plans to continue policy advocacy efforts, has identified strategic partners to achieve it, is determined to continue engaging with the public sector, and will continue enhancing their membership through more effective advocacy and better service provision.

EMPOWERING LOCAL GOVERNMENTS TO MAKE OWN LAWS

The collaboration between the project and the Northern Ghana Governance Activity intended to increase awareness of agriculture policies and implement policy dialogue recommendations. However, through these interventions, the project teams discovered that district officials had started the extraordinary process of developing their own bylaws.

Armed with new knowledge, private sector and government actors went beyond implementing the policy dialogue recommendations. Local governance structures began responding to private sector "demands" due to the private sector's strengthened involvement at the district level. The Northern Ghana Governance Activity is presently working with Northern Region CSOs to have mandatory agriculture subcommittees within all district assemblies in the country because they will provide a focused platform for members of the committee to comprehensively address issues relating to agriculture. Furthermore, it will make it easier to clearly align local agriculture priorities with the strategic goals of the central government. It will also provide opportunities to increase the capacity of subcommittee members to implement preventative measures and promote agriculture-related issues.

In effect, project interventions led to local-level participatory democracy and necessary decentralization, empowering local government to make their own bylaws.

The project has strengthened public-private dialogue in Ghana, enhancing the private sector's voice in the agriculture policymaking process. To sustain public-private dialogues after its closure, the project has left behind NASTAG and a network of private sector organizations under the auspices of the Ghana Chamber of Agribusiness that are engaging the public sector and contributing to Ghana's agriculture policymaking process.

Gender: Empowering Women's Role in Ghanaian Agriculture

Gender considerations and inclusion cut across all aspects of the Agriculture Policy Support Project's activities. The Ministry of Food and Agriculture recognized the need to increase female representation in Ghana's agriculture sector in its policy documents. It further recognizes that paying attention to the needs of women farmers leads to higher agricultural productivity and better outcomes on poverty and human development. In support of the ministry's efforts, the project developed a strategy to mainstream gender and promote opportunities for women to access productive resources for their agriculture activities. The project ensured that public agriculture policy considers the different needs of men and women.

The Agriculture Policy Support Project provided technical assistance to the Women in Agricultural Development Directorate (WIAD), one of seven Ministry of Food and Agriculture Technical Directorates, to address gender challenges in the policy arena. The assistance included support to revise the Ghanaian government's Gender and Agriculture Development Strategy (GADS) II and ensured that it promotes equal opportunities for the underserved women farmers in the country. Project support increased regional and district agriculture departments' awareness of how to mainstream gender into programming and budgeting. For instance, as a result of the project's training of trainers for public sector staff on GADS II, six district agriculture departments in the Upper West Region have promoted the establishment of Women in Agriculture Platforms. Three of these platforms are receiving technical support to develop their medium-term development plans and are accessing seed and fertilizer from the Planting for Food and Jobs (PFJ) program. In the Upper East Region, district agriculture officers involved 180 women rice farmers in conducting gender analysis of the rice value chain. As part of the exercise, these women farmers developed their own strategies to overcome their production limitations, which has led to increased rice yields and incomes. The project also supported a survey on "Gender and Agriculture in Ghana" to provide baseline statistics that will be used to measure the impact of GADS implementation. Additionally, three of the research studies focused on gender issues and provided further insights into the constraints faced by women farmers. WIAD shared these results with policymakers to inform appropriate, purposeful policies that support women to become more productive and efficient farmers while respecting the other roles women play in managing their households.

Many of the Agriculture Policy Support Project grants supported policy advocacy for women. Grants to CSOs strengthened their capacities to tackle challenges that affect agricultural development and to advocate for policy reforms that are essential to integrating women's needs into Ghanaian agriculture policies. For instance, the public-private dialogues implemented by project-sponsored CSOs ensured widespread consultation at the national, regional, and district levels on policies and regulations that affect women in agriculture development. Grants helped women's FBOs increase

their awareness on sectoral issues that affect them and improved their knowledge regarding demanding services from the public sector, especially agriculture extension services. Additionally, grants supported engagement with local government authorities to increase resource allocation for agriculture to boost development of their local economies, which are primarily agrarian and comprise a large percentage of female farmers and female agricultural labor.

Project grantees also carried out specific public-private policy dialogues to discuss gender gaps in agriculture and women's access to land. One grantee presented a memorandum to the Parliament of Ghana at a public hearing. The memorandum included suggestions to legislators for amending the Land Bill to make it responsive to gender concerns and to protect women's rights pertaining to access to land and other productive resources. As of September 2018, Parliament is vetting the draft Land Bill before passage.

To advocate for women's needs in agriculture, CSOs must have evidence to convince policymakers of the importance of closing existing gender gaps in the agriculture sector. The project therefore trained selected ministry staff and 20 CSOs to appreciate the importance of using evidence in advocacy; to find reliable sources for statistics and other data; and to analyze, organize, and use the data to convince policymakers to include women farmers' needs in policy decisions. The project then engaged an experienced CSO to provide further training and mentoring to the 20 organizations in evidence-based policy advocacy. Follow-up monitoring revealed that the project achieved its target as 10 of these organizations demonstrated that they are now well versed in the use of gender disaggregated data. More importantly, whereas prior analyses and advocacy was conceptual rather than evidence-based, there now exists a cadre of Ghanaian CSOs focused on women in agriculture that use empirical evidence to drive more effective analyses, position papers, and advocacy.

KEY ACCOMPLISHMENTS AT A GLANCE

The Agriculture Policy Support Project's target results demonstrate the breadth of interventions that increased the capacity of public and private sector stakeholders to conduct policy identification, formation, monitoring, and advocacy.

These actors now incorporate strengthened evidence-based policymaking and enhanced mutual accountability in implementing agriculture policies and programs. The sheer number of stakeholders and opportunities for dialogue has created a critical mass that recognizes the importance of agricultural policies at national, regional, and district levels to spark needed reform (see Exhibit 6). Throughout the report, we present examples of this in policy areas such as seeds, land, gender, decentralization, and extension services (see Annex A. Performance Indicator Tracking Table).

EXHIBIT 6. PROJECT'S KEY ACCOMPLISHMENTS CREATE CRITICAL MASS TO MOBILIZE POLICY REFORM



27

GOVERNMENT UNITS AND DIVISIONS

trained in the policy process, policy analysis, and policy advocacy



5,379

INDIVIDUALS RECEIVING SHORT-TERM TRAINING

on agricultural best practices and business management and on the agriculture policy process, policy analysis, and policy advocacy to strengthen food security



25

ENABLING ENVIRONMENT POLICIES

related to agriculture and nutrition were supported



25

POLICY STUDIES

high-quality research and reports developed and published



84%

POLICY RESEARCH CAPACITY

in assisted research organizations and units, which represents a 35% increase over the life of the project



10

CIVIL SOCIETY ORGANIZATIONS

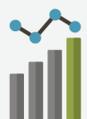
trained in the use of gender disaggregated data to implement women in agriculture policy advocacy



160

DIALOGUES FOCUSED ON POLICY

that support private sector investments and gender inclusion facilitated



82%

PRO-BUSINESS ADVOCACY CAPACITY

in targeted private sector organizations for agriculture sector reform, which represents a 30% increase over the life of the project



150

FOOD SECURITY ENTITIES

including associations, CSOs, private companies receiving U.S. government assistance trained in the policy process, policy analysis, policy advocacy, and in business, post-harvest, and seed management

Project Legacy: Institutional and Technical Impact

The project has established a “before” and “after” legacy in Ghana’s agricultural political economy through the project’s multiple interventions. These interventions assisted counterparts with creating an evidence-based agriculture policymaking process that incorporates inputs from researchers and the private sector, including civil society and the media. Some of these legacies are summarized below.

- The project built the Ministry of Food and Agriculture’s capacity to identify, develop, analyze, and implement agriculture policies that are supported by empirical analysis. Ministry staff now provide timely policy advice to ministry key decision-makers.
- The local research community, comprising major public universities and think tanks, increased their research capacities with project support and developed a set of evidence-based policy research studies to make significant adjustments to Ghana’s agriculture policies and programs. The Ministry of Food and Agriculture is committed to incorporating recommendations as part of their policymaking process.
- Research efforts resulted in mutual respect and ongoing engagement between researchers and the public sector to ensure a continued flow of knowledge into the policymaking process. Researchers and the ministry will continue the Agriculture Research Summit annually as an example to sustain their collaboration.
- Private sector stakeholders, with project support, are now better prepared and motivated to engage with the public sector in meaningful discussions to strengthen food security and work toward an enabling environment to promote private sector investments in Ghana’s food industry. NASTAG, NETRIGHT, HAG, and the media — all critical players for agriculture policy advocacy — are continuing to convene and strengthen public-private dialogue.
- The Agriculture Policy Support Project’s support of policy reforms, strategies, and advocacy initiatives has influenced seed production and related institutional arrangements. The ministry, the project, and development partners created plans to scale up and ensure continuity along with the inherent market demand for available, affordable, and high-quality seed. The public sector’s strengthened regulatory capacity and better-defined role to monitor the seed industry and seed quality has created private sector opportunities to engage in seed production, including early generation seeds, and in key services provision for seed certification.
- Project activities to mainstream gender in agriculture policy are contributing to gender inclusion in Ghana. Activities included gender-focused research, public sector and CSO training on GADS II, and CSO capacity building to strengthen women in agriculture policy advocacy. NETRIGHT effectively advocated to

incorporate important clauses to improve women’s access to land and secure their rights as spouses of marriages “not institutionalized” into the Land Bill. These are before Parliament for approval.

Exhibit 7 further illustrates the expanse of critical stakeholders that the project reached to engage in the policy process.

EXHIBIT 7. PROJECT BUILDS CAPACITY OF CRITICAL STAKEHOLDERS TO ENGAGE IN POLICY PROCESS



SECTION 1

TECHNICAL HIGHLIGHTS AND RESULTS

The Agriculture Policy Support Project’s mandate was ambitious, reaching more than one-third of the country spanning all 10 regions in 79 of 216 (37 percent) of Ghana’s districts. Equally ambitious was the project’s public and private sector collaboration and leveraging of complementary projects (see exhibits 8 and 9), laying a countrywide foundation to improve agriculture policy reform and increase opportunities for private sector participation and investment in the agriculture sector.

EXHIBIT 8. PROJECT PARTNERSHIPS TO ENHANCE THE AGRICULTURE POLICY PROCESS

PUBLIC AND PRIVATE SECTOR ORGANIZATION	UNIT	PROJECT INTERVENTION
PUBLIC SECTOR INSTITUTIONS		
Ministry of Food and Agriculture	Policy Planning Monitoring and Evaluation Directorate PPMED – Policy Unit PPMED – Project Coordination Unit Plant Protection and Regulatory Services Directorate (PPRSD) PPRSD – Ghana Seed Inspection Division PPRSD – National Seed Testing Laboratory Crop Services Directorate (CSD) CSD – Technical Variety Release Committee Statistics Research and Information Directorate Women in Agricultural Development Directorate Directorate of Agricultural Extension Services Veterinary Services Directorate Ghana Irrigation Development Authority Planting for Food and Jobs Secretariat National Seed Council METASIP Implementing Institutions: METASIP Steering Committee SAKSS Nodes METASIP Secretariat	Provided technical assistance, capacity building, and training for strengthening the institutional architecture for policymaking, implementation of policy reforms, research, operationalization of coordination bodies, gender mainstreaming, and data management.
Ministry of Lands and Natural Resources	Lands Commission Secretariat, Land Administration Project	Provided technical and logistical support for redrafting Land Bill and Guidelines for Large Scale Land Transactions.
Ministry of Finance	Agriculture and Agribusiness Unit	Enacted joint implementation of workshop to validate research findings of studies on Ghana’s Fertilizer Subsidy Program and coordinate project interventions.
Ministry of Trade and Industry	USAID’s embedded advisor	Implemented two studies assessing the feasibility of a commodity exchange.

PUBLIC AND PRIVATE SECTOR ORGANIZATION	UNIT	PROJECT INTERVENTION
Ministry of Fisheries and Aquaculture Development	PPMED	Developed a report on aquaculture business plans.
Regional Coordinating Councils	Regional Agriculture Development units, law enforcement agencies	Trained staff on system administration for mobile data collection, implemented agricultural decentralization, enforced regulations on plants and fertilizers.
District Assemblies	District Agriculture Development units	Strengthened public-private dialogues on agriculture policy, promoted district-level policymaking, and trained district officers in charge of data collection.
Ministry of Environment Science, Technology, and Innovations	National Bio-safety Authority	Provided technical assistance and funding to implement components of the National Biosafety Authority's communication strategy to promote biotechnology to modernize agriculture.
Parliamentary Select Committee on Food, Agriculture, and Cocoa Affairs	Committee's Secretariat	Provided technical and financial assistance to undertake review of Ghana's agriculture sector performance as well as short-term training in budget analysis, budget tracking, and legislative/regulatory analysis and passage.
Parliamentary Select Committee on Lands and Forestry	Committee's Secretariat	Supported a public hearing on the Land Bill.
Universities and Research Organizations	University of Ghana's Institute of Statistical, Social and Economic Research; University of Cape Coast; University for Development Studies; University of Ghana; Crop Research Institute; Science and Technology Policy Research; Research, Savanna Agriculture Research Institute; and Ghana Institute of Management and Public Administration	Provided capacity building in agriculture policy research as well as the development of and training in seed licensing policy, seed licensing, and licensing contract agreements to increase the supply of early generation seeds.
CIVIL SOCIETY AND PRIVATE SECTOR ORGANIZATIONS		
Civil Society and Private Sector Organizations	SIRDA, RUWA, Urban-Rural Network (URBANET), Northern Patriots for Research and Advocacy, Community Life Improvement Program, SAFE-Ghana, Evangelical Presbyterian Development Relief Agency, Roots Link Africa, Farm Management Services Limited Multimedia, SyeComp Ghana, HAG, NETRIGHT, SIFA Agrottrade Investments Co. Ltd., RUMNET, Coalition for Development of Western Corridor of Northern Region (NORTHCODE), Center for Rural Investment Services, Pan-African Organization for Sustainable Development, Centre for Research in Efficient Agriculture Technology, NASTAG, Ghana Agricultural	Built organizational capacity, strengthened policy advocacy, gender mainstreaming, public-private dialogues, seed policy advocacy, and enhanced agriculture-related media reportage.

PUBLIC AND PRIVATE SECTOR ORGANIZATION	UNIT	PROJECT INTERVENTION
	Associations Business and Information Centre, Ghana Agriculture and Rural Development Journalist Association, Ghana Independent Broadcasters Association	
Private Enterprises	More than 40 seed enterprises and licensed buying companies (aggregators)	Provided training in seed-quality management, accreditation for seed certification and management, and post-harvest handling.

The project also coordinated implementation of its activities with other USAID Feed the Future projects and other donors to leverage available funds and expertise to magnify results. Exhibit 9 summarizes areas of collaboration.

EXHIBIT 9. COLLABORATION WITH USAID, FEED THE FUTURE, AND PARTNERS

DEVELOPMENT PARTNER	PROJECT	COLLABORATION AND LEVERAGING
USAID	ADVANCE II, Agriculture Technology Transfer, Financing Ghanaian Agriculture Project, Africa Lead, METSS Ghana Strategic Support Project/ International Food Policy Research Institute, West Africa Fertilizer Program, West Africa Seed Program, African Fertilizer and Agribusiness Partnership, Innovation Lab for Food Security Policy at Michigan University, Modernizing Extension and Advisory Services Project, Northern Ghana Governance Activity	Trained FBOs, supported district-level public-private dialogues, fostered seed sector development, coordinated support to the Ministry of Food and Agriculture's programs and consultative bodies. Created synergies to support the ministry on data management systems, input policy, agriculture extension, and follow-up on district-level dialogue recommendations.
World Bank	Land Administration Project	Collaborated to review and redraft Ghana's Land Bill.
Alliance for Green Revolution in Africa	Scaling Seeds & Technologies Partnership, Partnership for Inclusive Agriculture Transformation in Africa	Coordinated and followed up on seed sector interventions.
FAO	Monitoring and Analyzing Food and Agricultural Policies	Conducted peer reviews of project policy assessments and the METASIP I and II evaluation.
GIZ	Market-Oriented Agriculture Programme in Ghana	Collaborated to support the strengthening of agriculture public-private dialogues.
Central African Council for Agricultural Research and Development	Central African Council for Agricultural Research and Development	Collaborated to review and harmonize Ghana's Seed Regulations to ECOWAS Protocols.
African Union Commission	Re-SAKSS	Established METASIP Secretariat at the ministry.
African Agriculture Policy think tanks	Zambia Indaba Agriculture Policy Research Institute, Ethiopian Development Research Institute	Shared experiences in setting up and implementing policy units.

The breadth and depth of the project’s collaboration and geographic coverage enabled the team to establish effective partnerships and achieve the project’s objectives as presented in the sections below.

COMPONENT 1. POLICY FORMATION AND IMPLEMENTATION: POLICY PROCESS OF EVIDENCE-BASED DECISION-MAKING RELATED TO FOOD SECURITY IMPROVED

Ghana’s economy is driven by agriculture, which contributes significantly to the country’s gross domestic product. However, sector growth declined from 5.3 percent in 2010 to 3.0 percent in 2016 and its gross domestic product share declined from 29.8 percent to 18.9 percent during the same period. Nonetheless, the sector still employs 44.7 percent of Ghana’s labor force. Ghana’s overarching agriculture policy is to commercialize the sector, help to achieve food security, eliminate hunger, reduce poverty, and create employment for youth. This requires appropriate policies and legal and regulatory frameworks to create an enabling environment to attract private sector investments. The project assisted the Ghanaian government with improving the legal and regulatory environment to help achieve its objectives.

Component 1 aimed to improve Ghana’s agricultural sector policy process for evidence-based food security decisions through four key result areas:

- *Key result area 1:* Improved capacity for policy analysis and evaluation by core METASIP institutions by standing up the Strategic Analysis and Knowledge Support Systems (SAKSS) nodes
- *Key result area 2:* Enhanced implementation of improved policies, regulations, and administrative procedures as outlined by the Ghanaian government’s endorsed policy documents and agreements between the government, donors, and private sector
- *Key result area 3:* Improved policies that enable private sector development, commercialization, and use of improved agricultural inputs to increase smallholder incomes and productivity
- *Key result area 4:* Improved execution of METASIP

EXHIBIT 10. SAKSS NODES SUBCOMMITTEES AND METASIP THEMATIC AREAS



Key Result Areas 1 and 4. Improved Policy Analysis and Evaluation by Core METASIP Institutions by Standing Up the Strategic Analysis and Knowledge Support Systems Nodes and Improved Execution of METASIP

METASIP and the SAKSS nodes are initiatives of the African Union and part of CAADP to promote public-private dialogue to enhance the agriculture sector policy process, implement investment plans, and formulate and implement relevant policies to attract investments into the sector. CAADP is linked to METASIP, FASDEP, and the Shared Growth Development Agenda. Together, these entities aim to accelerate agricultural investment and growth and poverty reduction, but policy impediments prevent transformative leveraging of private sector resources to achieve the objective.

Revitalizing the METASIP/SAKSS Policy Structures

In 2011, the Ministry of Food and Agriculture established the METASIP Steering Committee as an overarching policy and program monitoring body and the SAKSS nodes designed to inform METASIP on its priority thematic areas (see Exhibit 10). These were practically inactive at the project's inception, which limited their ability to create the platform for public-private sector policy dialoguing to enhance the policy process. The project partnered with the ministry to revive these policy structures, including building members' capacity, establishing a coordination office, and providing logistical support for the meetings.

Enhancing the capacity of METASIP and SAKSS members to better perform in their roles. The project provided technical assistance to the ministry to strengthen the capacity of public and private representatives that make up the METASIP implementing institutions and the SAKSS nodes. The Ghana Institute of Management and Public Administration (GIMPA) — a project subcontractor — conducted a training-needs assessment of the METASIP/SAKSS representatives, developed training manuals, and provided training (see GIMPA Helps to Revitalize METASIP/SAKSS box).

METASIP and SAKSS nodes members now have the capacity, tools, and mechanisms required to identify, design, analyze, implement, evaluate, and communicate evidence-based agriculture policy priorities and are prepared to carry out their

GIMPA HELPS TO REVITALIZE METASIP/SAKSS

Training courses:

- Leadership and governance
- Information technology and data management in agriculture
- Improved knowledge and practice of policy evaluation, project design, implementation, and performance measurement framework
- Survey research methods and advanced methods
- Quantitative data analysis using SPSS and STATA software

METASIP/SAKSS representatives trained by GIMPA:

- Ministry of Food and Agriculture
- Ministry of Trade and Industries
- Ministry of Local Government and Rural Development
- Ministry of Finance
- Crop Research Institute
- University of Ghana
- Kwame Nkrumah University of Science and Technology
- Federation of Agriculture Ghanaian Exporters
- Ecumenical Association for Sustainable Agriculture and Rural Development

mandate. This intervention’s impact extended beyond METASIP and SAKSS nodes implementing institutions; the African Development Bank’s Ghana Institutional Support Program supported GIMPA to train public officials selected from Nadowli District in the Upper West Region, Akyemansa District in the Eastern Region, and Asunafo North District in the Brong Ahafo Region using the project-supported project design and monitoring and evaluation modules. The African Development Bank project wanted to build public officials’ capacity to design projects and access development funds, which has been largely successful because the districts have received funding for various developmental initiatives. These capacity building exercises are contributing to improved public sector administration and governance.

Reactivating METASIP and SAKSS functionality. At project’s inception, the METASIP steering committee and SAKSS nodes were not operational because they did not have complete membership or action plans. The project and the ministry organized thematic working group meetings to reconstitute the steering committee and the six SAKSS nodes’ membership and to develop action plans, which provided roadmaps for the work of the two policy structures. Moreover, prior to the project, the METASIP/SAKSS structures were poorly coordinated and the ministry staff responsible for coordination primarily dedicated time to their core mandate as ministry employees. To correct this anomaly, the project collaborated with the ministry and the Regional SAKSS¹ (Re-SAKSS) to establish and operationalize a SAKSS Secretariat in Ghana to serve METASIP activities as well. This initiative aligned with the SAKSS concept as developed by the International Food Policy Research Institute (IFPRI) that recommends that “for operational purposes, a secretariat must be set up with the primary function of managing the SAKSS.”² The project furnished office space, and Re-SAKSS hired a technical coordinator and a research assistant to support PPMED with coordinating the activities of these consultative bodies, without interfering with the directorate’s core ministerial tasks.

Revived Quarterly Meetings for METASIP Steering Committee and SAKSS Nodes.

Because METASIP/SAKSS were non-operational at the onset of the project, these policy platforms did not hold quarterly meetings as required by their mandate. With project support to make METASIP’s Secretariat functional, the METASIP steering committee organized three quarterly meetings, and the SAKSS nodes 2, 4, and 5 organized six meetings, enabling them to roll out their respective action plans. As the overarching sector policy structures, METASIP and SAKSS meetings — and the policy discussions and decisions emanating from them — are important because they directly contribute to improving Ghana’s agriculture sector policy process for evidence-based decision-making related

I don’t know how the ministry could have managed its policy structures without the Agriculture Policy Support Project. Our staff has been trained to better fulfill their role to monitor policies and coordinate with other development partners.

— LAMBERT ABUSAH, DIRECTOR OF MONITORING AND EVALUATION, MINISTRY OF FOOD AND AGRICULTURE

¹ Re-SAKSS is an Africa-wide network to support implementation of the CAADP and NEPAD. The SAKSS concept was adopted at the multi-country level as part of the Re-SAKSS framework.

² For more information, visit <http://www.ifpri.org/cdmref/p15738coll12/id/124866/filename/124867.pdf>

to food security. The impacts of the METASIP and SAKSS revitalization exercise have been positive. The METASIP steering committee received recognition from government as the overarching policy and program monitoring body. This has been reflected in the steering committee chair's appointment to the ministry's constitutionally mandated Ministerial Advisory Board, which provides policy advice to the honorable minister. Furthermore, the ministry and the Lands Commission consulted the steering committee in design and formulation of two important national policies. First, the committee provided guidance on the Land Commission's recommendations for the drafting of new policy guidelines for acquisition of large tracts of land. The steering committee's input into the land guidelines gave a greater role to local people, helping at the same time to improve land administration. Second, the steering committee helped with recommendations for designing Ghana Incentive-Based Risk-Sharing Agriculture Lending (GIRSAL), a new initiative of the ministry and the Central Bank of Ghana to improve access to agriculture financing. The steering committee's input on GIRSAL will help to improve private sector access to agriculture financing, which is a notable challenge in Ghana's agriculture sector.

Additionally, SAKSS node 2 — charged with analyzing and compiling data on “Increased Growth in Incomes” — and SAKSS node 4 — charged with “Sustainable Management of Land and Environment” — identified and completed two priority policy research studies, which provided actionable recommendations that will promote sustainable land management practices in Ghana and decrease pressure on agriculture lands. The studies included evidence-based, investment-friendly policies to attract increased private investments in peri-urban agriculture and to promote it as a vehicle for commercializing vegetable production on a larger scale for urban consumption. Because of the project's revitalization efforts, METASIP and SAKSS are progressing to fulfill their core mandate to support and promote evidence-based agriculture policy decision-making and to create the enabling environment to attract private sector investments.

Embedded Policy Advisor to Provide Technical Assistance to the Ministry of Food and Agriculture's Policy Planning and Monitoring and Evaluation Directorate

To deepen the capacity building program within the Ministry of Food and Agriculture, the project collaborated with the ministry and project-supported Center for Policy Analysis (CEPA) to design a scope of work to embed a policy advisor, through CEPA, into PPMED. The policy advisor was to provide technical backstopping to PPMED's director and to coach staff in policy problem identification, data collection, rigorous policy analysis, policy brief writing, and knowledge management. As a testament to the policy advisor's work at the ministry, senior management demanded and used his technical expertise beyond his initial mandate, having him take on ministry staff roles such as daily implementation and district visits to meet with decentralized staff. The ministry also requested an extension of his contract to continue benefiting from his contributions as they did not have funds to hire him directly. As CEPA's contract was ending, however, the request was not feasible. Exhibit 11 below identifies selected accomplishments of the policy advisor.

EXHIBIT 11. PROJECT-SUPPORTED POLICY ADVISOR ACHIEVEMENTS

ACTIVITY	ACTUAL OR EXPECTED IMPACT
Provided technical backstopping to develop an agriculture investment guide	The document provided guidance for the investor community to attract private sector investments into agriculture.
Served on GIRSAT technical team	GIRSAT, whose implementation is under the leadership of the Bank of Ghana, is expected to provide affordable, accessible agriculture credit, enhanced farmers' access to credit, and encouraged purchase and use of improved inputs. The participation of the embedded advisor on this technical team was fundamental to informing the GIRSAT designers about specific social, economic, and operational characteristics of Ghanaian farmers.
Provided technical assistance to review the agriculture sector annual performance for Parliament Select Committee on Cocoa Food and Agriculture	Parliament accepted recommendations from the review workshop, and the government has banned illegal small-scale gold mining to help restore damaged agriculture lands and bodies of water.
Chaired a committee to develop training curricula and selected trainees for greenhouse technology	The ministry is working with stakeholders to progressively introduce science and technology into vegetable production on a commercial basis and created employment opportunities for youth. This adjustment to the training curricula is expected to promote youth participation in agriculture.
Provided independent assessment of 2015 agriculture performance review (APR)	The embedded advisor's recommendations led to the current ministry leadership's redesign of the APR into a document that measures agriculture performance against targets. The new version will provide relevant and responsive information for policy planning and policy monitoring.
Provided technical support to finalize the ministry's agriculture policy matrix	The matrix provided the basis for sector resource allocation and served as a tool for managing sector performance, monitoring, and evaluation.
Identified capacity PPMED's challenges and advised on interventions to address them	The advisor worked with GIMPA on the training needs assessment to develop the training modules and was a resource person when training METASIP/SAKSS members. Members — including PPMED — increased their capacity to better perform their monitoring and coordination roles. The training modules and increased capacity expanded beyond METASIP and SAKSS as additional programs requested GIMPA to provide this valuable training.
Provided technical backstopping to the capacity building program at PPMED and helped coach the Policy Unit staff on developing a policy matrix	Exposed staff to the use of a policy analysis matrix for the first time. The policy matrix became one of the fundamental documents used by the ministry to develop the National Agriculture Investment Plan.

Key Result Area 2. Enhanced Implementation of Improved Policies, Regulations, and Administrative Procedures

The Agriculture Policy Support Project supported reform initiatives on which the government, development partners, and private sector players agreed through policy platforms such as the Agriculture Sector Working Group (ASWG), which have the potential to increase private sector investments and transform the agriculture sector.

Contributions to Ongoing Policy Reform Initiatives

Partnering with the government of Ghana to introduce land reforms. Land rights in Ghana are governed by a complex, coexisting pluralistic legal system. Customary and statutory laws do not align and most land is held informally, making it difficult for vulnerable groups like women and the poor to access land. The government and the World Bank launched the National Land Policy in 1999 to introduce land reforms. Given the importance of land to agriculture development, the project supported the government to draft the fourth iteration of the Land Bill to consolidate the various versions of the reforms. Also, the project provided support to the Lands Commission to validate a procedure on business transactions to access larger tracts of land, ensuring the rights and responsibilities of the parties involved, including private individuals and local communities demanding land for productive use.

It took us almost two years to strike a deal with our landlords to acquire land for our business. I hope these guidelines will change all that. When all parties concerned know better how to manage large tracts of land, either traditional users and lessees, their respective roles, rights and responsibilities are better protected and enforced.

— FUSEINI YAKUBU, KHARMA FARMS, TAMALE



PHOTO: Agriculture Policy Support Project

During a validation workshop on land guidelines, participants share views on how to protect smallholder farmer rights and assist investors to access secure land. This will promote efficient and transparent accountability in land governance institutions.

- *Drafting Land Bill:* The project-supported fourth iteration of the Land Bill includes provisions to promote transparency and accountability to enhance women’s land rights, reduce costs of registration, and clarify recording rights to make land administration services widely accessible. The Ministry of Land and Natural Resources laid the bill in Parliament in Fiscal Year 5. Prior to the project’s end, there was commitment to pass the bill before the end of 2018. When implemented, the bill will:
 - Simplify land administration in Ghana;
 - Improve access to agriculture land, especially for vulnerable populations;
 - Ensure land tenure security;
 - Encourage increased private investment in agriculture land and increase agriculture production and farm incomes;

- Reduce poverty; and
 - Ensure long-term sustainable agriculture growth and development.
- *Drafting guidelines for acquiring large tracts of land:* The project also provided technical and logistical support to the government to validate, finalize, and implement the new policy “Guidelines for Large Scale Land Transactions.” It ensures that investors conform to approved uses of land and consider the rights and livelihoods of land users. Its implementation is encouraging wider stakeholder consultations and has introduced transparency into land acquisition transactions at the community level. These guidelines have:
 - Created easier engagement between traditional land owners, farmers, and investors interested in accessing land;
 - Promoted confidence in land administration; and
 - Reduced community agitation and land-related violence.

Promoting biotechnology in Ghana. Farmers in Ghana mostly employ traditional farming methods, with limited use of technology, but the government recognized genetically modified organisms’ potential to improve agriculture development. In 2011, Parliament passed the Bio-Safety Act to boost agriculture development. In 2015, the government inaugurated the National Bio-Safety Authority to promote adoption and use of genetically modified organisms in agriculture in response to public resistance since 2011. Given the importance of the initiative, the project assisted the authority to implement its communication plan to educate and sensitize the wider public about the benefits of biotechnology to encourage acceptance and adoption. Public awareness of biotechnology grew through the authority’s website, with page views increasing from 3,806 to 24,041 in one and a half years. It should be noted that a challenge facing the authority is that it lacks funding to continue this web support. Biotechnology awareness will lead to:

- Increased acceptability and adoption of safe, efficient, and reliable bi-technologies;
- Increased farm productivity;
- Improved farm income; and
- Increased private sector investment.

Transforming small farms into business entities. Ghana’s agriculture is dominated by smallholder farmers who produce more than 80 percent of the nation’s food requirements using rudimentary technology and with limited access to extension services. The current rate of extension agents to farmers is 1:1,000. For effective agriculture extension, this should be 1:400. To improve small farmer access to extension services, the Ministry of Food and Agriculture is promoting the formation of strong FBOs as entry points for agriculture technology and extension service delivery to their members (see Farmer-

FARMER-BASED ORGANIZATION STRATEGY EXPECTED IMPACT

- Make FBOs key entry point for extension services delivery to help small farmers to adopt good agriculture practices
- Improve farm productivity
- Increase engagement in agriculture markets
- Increase income
- Reduce poverty
- Expand private sector investments in agriculture
- Develop small farms into business entities

Based Organization Strategy Expected Impact box). The project provided technical assistance to the ministry to revise the outdated FBO strategy, with suggestions to help make FBOs more effective in supporting members. Unlike the previous version, the revised strategy, which the government adopted and is implementing, aims to support the formation of farmer organizations and train them with the assistance of private sector suppliers of extension services.

Support to the Ghanaian government's drive to revive the livestock industry. Ghana's livestock subsector has experienced steady decline since the early 1980s when Ghana launched its Economic Recovery Program. The program liberalized the trade regime, leading to importation of significant quantities of meat products, especially poultry. To illustrate, in 1995, Ghana imported less than 4,000 metric tons of poultry products, but by 2017, these imports had reached 158,000 metric tons. Additionally, the country's agriculture policies since 2002, during FASDEP I and II, targeted fewer commodities at the neglect of the livestock subsector. To reverse this process, in 2015 the ministry requested the project to provide technical input to redraft and validate the Animal Health and Livestock Production Bills. In June 2018, the government launched the "Rearing for Food and Jobs" program, which indicates a strong possibility that it will approve these bills. As of September 2018, the Attorney General's Department is drafting the two bills' clauses into the proper legal language in line with the project's initial technical input.

The passed bills will:

- Motivate private sector investments in the subsector;
- Increase animal production and productivity;
- Create additional positive impacts through increased demand for crops such as maize and soybeans used for animal feed; and
- Improve livelihoods of resource-poor animal and cereal farmers, especially in the Northern, Upper West, and Upper East Regions of Ghana where animal production is a major farming practice.

Enhancing Agriculture Data Credibility in Ghana

Use of high-quality data and statistics is crucial to promoting evidence-based policy formulation, implementation, and M&E of agriculture programs for sustained agriculture growth and development. However, the Statistics Research and Information Directorate (SRID) of the Ministry of Food and Agriculture — which collects, analyzes, publishes, and manages all agriculture-related data — lacks capacity to produce accurate and credible data. The project collaborated with the ministry to increase SRID's capacity to fulfill their role in the following ways.

Supported validation of agriculture data. Data validation is an important part of producing credible data. The ministry addressed this challenge for SRID through technical and logistical support to the directorate to validate, finalize, and print more than 500 copies of its "Agriculture in Ghana: Facts and Figures 2014" publication for national distribution. This initiative was highly appreciated by the Honorable Minister of Food and Agriculture Fifi Fiavi Franklin Kwetey, who announced that the validation workshop, revision, and publication of the 2014 report would not have otherwise been possible.

Moving agriculture data collection from paper to mobile technology. Ghana's agriculture statistics are often met with credibility issues due to the use of pencil and paper interviews to collect data. SRID's data collection is manual, tedious, and time consuming, and has a high risk of introducing errors during the data entry and processing phases. To address these issues, the project supported the ministry to move from collecting data using pencil and paper interviewing to mobile data collection, using a computer-assisted personal interviewing (CAPI) system with Android tablets (see Shift to Mobile Data Collection has 99.9% Validity and Saves 207 Work Days box, next page). The new CAPI application prototype software is web- and Android-based and being used by system administrators and field data collectors, respectively. The project's support package included the supply of 85 state-of-the-art 3G-tablets and a high-capacity computer server for receiving, aggregating, storing, and analyzing data received from data collection officers in the field in real time. The project also trained more than 200 SRID staff in mobile data collection methods and in CAPI system administration.

Field data collection is automatically uploaded to a secure server in real time for immediate analysis to write manuscripts. This is a leap from the huge delays with paper-based data collection. This new system does not require several data entry clerks and a database developer working over several days as in the old paper-based system.

— MR. FRANCIS AHIAMATAH,
MANAGEMENT INFORMATION
OFFICER, SRID



PHOTO: Agriculture Policy Support Project

SRID staff from the Ministry of Food and Agriculture interview farmers using the CAPI system. CAPI significantly reduces data collection time and improves data accuracy.

The Ghana Statistical Service and the Ministry of Food and Agriculture are currently conducting a national agriculture census using CAPI technology and have deployed CAPI-trained SRID staff for this massive national exercise. Also, SRID will train additional staff to use the tablets in September 2018 and deploy them for agriculture field data collection. This digital transformation is helping SRID to improve collection, analysis, management, and publication of accurate agriculture data, including GIS plotting in real time in addition to helping to enhance the ministry's annual agriculture production and market survey. This is improving agriculture data credibility and acceptability, and ensuring more reliable sector planning and M&E, which will lead to better formulation of sector policies to attract increased private sector investments. The CAPI system is reusable, scalable, and can be adopted for many other purposes and benefits, including e-extension services and program M&E.

**SHIFT TO MOBILE DATA
COLLECTION HAS 99.9% VALIDITY
AND SAVES 207 WORK DAYS**

CAPI introduced high standards into the ministry's data collection process and has enabled them to collect additional and high-quality data, and to keep data safe. There has been a vast improvement in the integrity and credibility of the agricultural statistics that the ministry presents to policymakers and other stakeholders. During the CAPI system pilot to conduct the agriculture production and marketing surveys, the time for data collection, data entry, and processing was improved by 85 percent, i.e., from 250 to 43 days. Data quality also improved, with results showing 99.9 percent validity of responses because survey supervisors can check fieldwork progress and data quality in real time and provide instant feedback to field staff through the Internet.

Development of a study on sector data collection methodologies. As part of the effort to strengthen data quality, in 2016, the project commissioned a study that proposed recommendations to SRID to help improve data collection methodologies. After validating the report's recommendations, SRID developed an implementation plan to roll out its adoption. During the 2017 farming season, SRID used the new methodology to accurately assign land sizes to crops in a mixed farming setting. Implementation of the recommendations will enhance the production of more accurate sector data and contribute to reliable sector planning and M&E to help achieve sustained agriculture development.

Contributing to Mutual Accountability in the Agriculture Policy Process

As a signatory of CAADP, Ghana has implemented mechanisms to promote mutual accountability as part of the process for enhancing agriculture policy decision-making and policy implementation. Two of these mechanisms are the ASWG and the JSR, which aim to ensure that sector policy formulation and implementation have broad-based input and transparency. Both the ASWG and the JSR comprise government representatives, civil society, private sector organizations, and development partners.

Capacity building support to the ministry's Policy, Planning, Monitoring and Evaluation Directorate. PPMED is tasked with following up on the ministry's program implementation and coordinates the functioning of the ASWG and JSR consultative bodies. However, it lacked the capacity to perform effectively in this role, such as an understanding of the processes involved in monitoring program implementation, which in turn demands frequent contact with development partners that support the ministry's interventions. To address this challenge, the project

strengthened PPMED's staff with training on the policy cycle, policy analysis, project planning, and project M&E. Additionally, the project supplied ICT and office equipment to provide staff with tools to apply the acquired knowledge and to perform better on their daily monitoring tasks. Support included printing 430 copies of the 2015 annual progress review (APR), which assesses the factors that contributed or limited annual sector performance. The implementation of the 2016 and 2017 JSR meetings, the distribution of the APR to several stakeholders, and the renewed interest in holding periodic meetings of the ASWG and the JSR — as bodies for broad-based stakeholder consultations on agriculture sector policy reforms — are contributing to Ghana meeting its commitment to the CAADP for inclusive sector growth.

Supported development of the National Agriculture Investment Plan. Ghana implemented its METASIP I and II from 2011 to 2017, as its investment plans for FASDEP. In Fiscal Year 4, the project and FAO provided technical assistance to assess METASIP I and II to provide lessons for preparing the third National Agriculture Investment Plan (NAIP III). In Fiscal Year 5, the project, USAID, METSS, and USAID/Africa Lead provided technical and logistical assistance to the government to develop its NAIP III. The plan provides for greater involvement of private sector participation in the growth, development, and transformation of agriculture and will drive Ghana's accelerated agriculture and industrial growth policy objectives from 2018 through 2021. It will further promote cost-effective and efficient delivery of agriculture projects, encourage holistic agriculture sector transformation by broadening coverage to include the livestock and fisheries subsectors, and help stimulate and leverage private sector investments in agriculture for long-term growth and development.

Key Result Area 3. Improved Policies for Private Sector to Develop, Commercialize, and Use Improved Agriculture Inputs to Increase Smallholder Productivity and Incomes

The Agriculture Policy Support Project supported the Ministry of Food and Agriculture by facilitating policy reforms to strengthen the seed industry and to implement adjustments to the Ghanaian government's current fertilizer subsidy program. A case study of the project's seed sector policy reform interventions is

The Agriculture Policy Support Project training and relevant IT equipment to PPMED led to improved technical documents, policy briefs, and improved staff productivity by almost 70 percent. We are indeed very grateful to USAID.

— MR. GEORGE BARWUAH,
MONITORING & EVALUATION

presented in Section 2. Below we provide a summary of the project's recommendations for fertilizer subsidies.

The Ghanaian government's fertilizer subsidy program aims for small farmers to use fertilizers to counteract the nation's poor soils, which are a challenge to advancing agriculture. However, concerns about the program include its high cost, official accounts that smugglers sneak subsidized fertilizers to neighboring countries, and the lack of an exit strategy.

The project commissioned a soil fertility management study with four other USAID projects to provide policy and technical options for a sustainable land management strategy. The ministry adopted three short-term recommendations for the 2016 subsidy program, which improved implementation by reducing farmers' anxiety about fertilizer availability (including organic fertilizers) with an early announcement of the subsidy program and by using an IT program for rollout. Implementing the study's medium- and long-term recommendations will allow the ministry to adopt a holistic strategy to improve soil fertility management.

The holistic strategy is grounded in a technical, cost-effective, and sustainable approach. The ministry will be able to eliminate the current expensive and unsustainable fertilizer subsidy program, including the blanket fertilizer application across all soil types. Improved soil fertility management will reduce agriculture risks and increase production. The project's approach complements soil enhancement practices with improved seeds and irrigation, resulting in agriculture as an economically sound investment.

Other Policy Reforms to Strengthen the Enabling Environment for Private Sector Investments in Agriculture

Based on the implementation of PFJ and other important policy programs — such as the “One District One Factory” (1D1F) initiative — the government's agriculture development policy priority is to commercialize and modernize agriculture, including smallholder farming, within a sector characterized by myriad challenges: low productivity, limited access to credit and improved technologies (e.g., seed and fertilizer), poor agriculture infrastructure to support input-output marketing, and labor scarcity. The government and its development partners acknowledge the need for policies and massive investments to mitigate challenges and unearth the sector's enormous potential, which is vital to driving inclusive economic growth, lifting the most vulnerable out of poverty, and maintaining the country's economic stability. Ghana's agriculture is a risky venture because of its dependence on unpredictable weather conditions and poor, underdeveloped markets that cannot effectively support agriculture production systems. These negatively affect national efforts to attract private investors and financial institutions who shy away from agriculture to avoid risk. During its implementation, the project worked on some of the elements to reduce or mitigate agriculture risk, which contributed to creating an enabling environment that attracts increased investment.

Supported efforts for irrigation reforms. Less than 0.3 percent of Ghana’s 15.9 million hectares of agriculture land is under irrigation.³ In turn, this factor makes agriculture a seasonal activity characterized by unreliable weather conditions resulting in low productivity and low incomes. In 2012, the Ghanaian government initiated a process to restructure the Ghana Irrigation Development Authority to undertake regulatory functions and devolve implementing functions to the private sector. Based on this context, the project provided technical assistance to the authority to review the irrigation policy in support of the reform process. At a workshop to validate the revised policy document in Fiscal Year 5, Honorable Minister of State Dr. Gyiele Nurah at the Ministry of Food and Agriculture revealed that President Nana Akufo-Addo was satisfied with the project effort and wanted a copy of the document for his study and implementation. The policy document has since been approved by the Ghana Irrigation Development Authority’s board and forwarded for Cabinet approval. The revised policy opens space for private sector participation in irrigation infrastructure development and management, which will help to improve irrigation availability and accessibility, enabling farming as a year-round business and profitable activity. The availability of irrigation will help to transform Ghana’s agriculture as the current unreliable weather makes farming risky and unattractive for increased private investments.

Report on feasibility of agriculture insurance in Ghana. The project also undertook a study into the feasibility of agriculture insurance in Ghana with the objective of adopting agriculture insurance to decrease risks. The major finding of the assessment, which was shared with USAID and is available for government consideration, is that agriculture insurance in Ghana is not economically self-sustainable and will require some subsidy.

Initiated interventions to reform agriculture markets and improve their performance. Ghana lacks a comprehensive agriculture marketing policy. As a result, the agribusiness sector is dysfunctional, especially for smallholder farmers whose participation in the markets makes them vulnerable to risks and high transaction costs. If these farmers engage with markets, this will increase their incomes and bring good returns on their resources. However, smallholder farmers are unable to tap their productive potential because of low levels of production, small land plots, unstandardized produce systems, poor infrastructure, and limited access to marketing services such as information. To improve the situation, the project provided technical assistance to the Ministry of Food and Agriculture to undertake the three agriculture marketing studies presented below to provide policy recommendations for improving market efficiency.

- *Situational analysis of agriculture marketing in Ghana.* The situational market analysis made policy recommendations to develop a national agriculture marketing policy. However, changes in the ministry’s management also changed priorities and postponed the development of this policy. The assessment presented agriculture policy recommendations to benefit smallholder farmers significantly because they produce the bulk of the nation’s food commodities. The recommendations aim to improve agriculture

³ To learn more, visit <https://tradingeconomics.com/ghana/agricultural-irrigated-land-percent-of-total-agricultural-land-wb-data.html>

marketing performance, reduce market risks, promote market efficiency, encourage market-oriented production, increase smallholder farmers' use of improved inputs, improve output quality to meet required standards, and attract appropriate commodity prices. Addressing these existing constraints in agriculture through a comprehensive policy will create an enabling environment for increased private sector agricultural investments.

- *Feasibility assessment of the proposed Ghana Commodity Exchange.* The GCX study concluded that Ghana already had conditions and institutions in place to establish a commodity exchange. However, the first priority is to encourage the efficient functioning of a warehouse receipt system to help increase commodity volumes, commodity value, and improve its IT infrastructure. The establishment of a sustainable and transparent system for commodity trading will contribute to improved pricing of agriculture commodities, since by definition, these systems promote the supply of high-quality produce. As commodity prices improve, it encourages adoption of better agriculture practices, improved inputs, and quality standards, enhancing the competitiveness of the agriculture sector. The shift to business-minded farming that functions within a transparent, sustainable commodity trading system will contribute to agriculture transformation in Ghana.
- *Assessment of the National Food Buffer Stock Company (NAFCO).* The NAFCO assessment recommended three main options: to structure and redefine a new legal mandate limiting NAFCO's scope to operating and managing government emergency food buffer stocks; to privatize NAFCO by selling all its assets to a private sector operator; or, to establish a public-private partnership in which a private investor buys a significant share and runs it as a profitable venture on behalf of the government. The assessment concluded that NAFCO's operations were distorting commodity market prices, leading to negative impacts on agribusinesses rather than encouraging market dynamics to determine commodity prices. Any of the assessment options will expand private sector participation in commodity marketing, attract increased private investments into agriculture, introduce competition into commodity marketing, promote market efficiency, and reduce risks. As a first step, the Ministry of Food and Agriculture is using NAFCO to provide warehouse storage services for commodities purchased by licensed buying companies registered with the PFJ program (see section below), but NAFCO is not involved in any direct marketing operations.

Collaborating with the Ministry of Food and Agriculture to Support Planting for Food and Jobs Program

The PFJ program is part of a national effort to modernize agriculture by helping smallholder farmers to adopt improved inputs (seeds and fertilizers) to increase their production and productivity, create jobs, and reduce Ghana's food import bill. PFJ is hinged on five pillars: supply of improved seeds, distribution of fertilizers, provision of extension services, marketing, and e-agriculture. The project supported implementation of PFJ through four targeted interventions, presented below.

Establishment of PFJ secretariat. There was no functional secretariat to coordinate implementation when PFJ launched. The Agriculture Policy Support Project stepped in to support coordination by renovating and furnishing two ministry offices for the PFJ secretariat and provided three laptop computers and a printer. Dedicated office space and equipment improved PFJ coordination, M&E, and effectiveness as PFJ staff no longer compete for crowded office space, ICT, and office equipment. The project also supported the PFJ secretariat with technical and logistical assistance to undertake an assessment of PFJ's first year. Assessment results led to policy decisions such as:

- Launching the 2018 fertilizer and seed subsidies early so beneficiary farmers receive inputs in time for the cropping season;
- Commissioning the private sector to directly distribute fertilizer (importers) and seed (NASTAG) to beneficiary farmers; and
- Requiring upfront payments from beneficiary farmers for the full subsidized cost of fertilizer and seeds to reduce cost recovery risks after harvest and improve PFJ's financial sustainability.

Embedded rice seed technical advisor at secretariat. Ghana's annual rice import bills are high, estimated at \$1.1 billion for 2017. Through PFJ, the government is determined to expand rice production to drastically reduce its imports. In 2017, Honorable Minister of Food and Agriculture Dr. Owusu Afriyie Akoto requested that the project embed a rice seed expert at the PFJ secretariat to help coordinate and select appropriate seeds, including high-yielding rice seeds. The outstanding performance of the project-sponsored rice seed expert motivated the minister to hire him directly as ministry staff, recognizing the value of the expertise and of sustaining momentum on program implementation. The embedded advisor's work will help to increase the availability of affordable high-quality rice seed, which is a catalyst for interactions along the rice seed value chain and for positively reinforcing the enabling environment to increase the country's rice production.

Training of licensed buying companies. Poor post-harvest management and handling is a chronic agriculture problem in Ghana resulting in heavy harvest and post-harvest losses, currently estimated at 20 to 30 percent annually. To address this, the project and the USAID's Financing Ghanaian Agriculture Project (FinGAP) trained 207 individuals from 118 PFJ-registered, licensed buying companies (LBCs) in basic business management and post-harvest handling and management to reduce losses (see Comprehensive Training for 118 Licensed Buying Companies Improves PFJ's Marketing Pillar box, next page). The training program was implemented over the course of a week, and it was the first of its kind ever provided to LBCs. After the training, the project and FinGAP assessed the training activity, which uncovered the following participant concerns and recommendations on PFJ's marketing pillar.

- The lack of warehouses increases commodity delivery costs due to longer distances. LBCs recommend that the Ministry of Food and Agriculture rehabilitate existing rundown warehouses as the government seeks funding to build new ones.
- The ministry’s delay to sign contracts with LBCs after agreeing on commodity prices negatively affects profitability because farmgate prices increase with time. LBCs strongly request the ministry sign contracts immediately after establishing prices.
- Farmers lack knowledge in commodity standards, creating challenges for sourcing high-quality commodities.
- LBCs lack access to affordable credit to support their businesses.

COMPREHENSIVE TRAINING FOR 118 LICENSED BUYING COMPANIES IMPROVES PFJ’S MARKETING PILLAR

- Planning, coordination, and resource use
- Business planning
- Agriculture value chain concept
- Financial management
- Farm mapping
- Database development and management
- Economics of transportation
- Post-harvest handling
- Implementation of traceability systems
- Organic regulations
- Hazard Analysis and Critical Control Point compliance
- ICT
- Insurance for agri-business
- Personnel management and training
- Communication as a tool for good customer care
- Good haulage practices
- Warehouse receipt system
- Warehouse layout and space use
- Fumigation and environmental management
- European Union compliance standards for quality and safety
- Compliance with food regulations

The project and FinGAP shared LBCs’ concerns and recommendations with the PFJ secretariat. If addressed, LBCs will have the incentives to enhance their trade and become better, more efficient partners for PFJ implementation.

The Agriculture Policy Support Project’s Policy Reform Agenda

Exhibit 12 below summarizes the Agriculture Policy Support Project’s joint work with the ministry and other ministries, departments, and agencies to promote the development, review and, if needed, revision of policy instruments to enhance food security and establish an enabling environment for increased private sector investments in agriculture. The project encountered these policy instruments at various stages of development in the policy cycle, and by working on 25 instruments across eight policy areas, undertook a bold agriculture policy reform process that has not been seen in the past 25 years in Ghana. The project started with 17 of 25 policy instruments at the “analysis” stage and was able to push 17 through to “approval” and “implementation.” This achievement is noteworthy when reflecting on past policy movement. For example, the Plant and Fertilizer Act was passed into law in 2010. However, the complementary Seed Regulations were not harmonized to ECOWAS protocols or with seed industry needs. There was no further movement in the government until five years later when the project provided this critical support to appropriately revise the Seed Regulations —which now are waiting for final parliamentary approval — and develop and revise technical procedures to improve the act’s implementation. This project-supported process took three years to achieve.

Other areas that demonstrate how the project has moved policy reforms include the Land Bill, the Irrigation Policy, and the livestock sector bills. The World Bank and the government had been working since 1999 to modify and improve access to land and land management. The Land Bill's fourth draft, which the project supported for two years, is now also under parliamentary approval. In 2012, the World Bank helped the Ghanaian government change its role from operator of irrigation schemes to subsector regulator. The revised policy is before the cabinet for its approval. The livestock sector bills, which the project started to support and readjusted in 2015, are now the basis for supporting the recently launched "Rearing for Food and Jobs" program. We provide additional examples throughout this report.

EXHIBIT 12. STATUS OF PROJECT POLICY INSTRUMENT REFORMS IN THE POLICY PROCESS

POLICY REFORM AGENDA FOR ENHANCING THE FOOD SECURITY ENABLING ENVIRONMENT					
Policy Areas and Instruments	Analysis	Status of The Instruments in the Policy Process as of September 2018			
		Public Debate	Drafting or Revision	Approval	Implementation
Institutional architecture for improved policy formulation					
Strengthening Policy Unit at Ministry of Food and Agriculture					✓
Assessment of new methodologies for data collection, analysis, and management					✓
Evaluation of METASIP I and II				✓	
NAIP III			✓		
Enabling environment for private sector investment					
Review of FBOs for Ghana Agriculture Extension Policy					✓
Development of guidelines for production of foundation seeds by the private sector					✓
Implementation of Guidelines for large-scale land transactions					✓
Agricultural trade policy					
Assessment of agriculture commodity trading systems			✓		
Situational analysis of agriculture marketing in Ghana for development of an agriculture marketing policy		✓			
Assessment of National Buffer Stock Company	✓				
Agricultural input policy (e.g., seed, fertilizer)					
Implementation of Plants and Fertilizers Act, 2010 (Act 803)					✓
Redrafting of seed regulations for harmonization with ECOWAS Protocols				✓	
Review of <i>Seed Variety Evaluation and Release Manual</i>				✓	
Review of Accreditation Manual for Seed Certification					✓
Review of National Quarantine Pest List					✓
Development of Crop Variety Licensing Policy					✓

POLICY REFORM AGENDA FOR ENHANCING THE FOOD SECURITY ENABLING ENVIRONMENT					
Policy Areas and Instruments	Analysis	Status of The Instruments in the Policy Process as of September 2018			
		Public Debate	Drafting or Revision	Approval	Implementation
Development of Seed Commercialization Agreements for National Agriculture Research Institutions (NARIs)				✓	
Development of licensing contracts to produce foundation seed					✓
Review of Fertilizer Subsidy Policy					✓
Implementation of the National Bio-Safety Authority's Communication Plan					✓
Land and natural resources tenure, rights, and policy					
Redrafting of Land Bill			✓		
Dissemination of GADS II					✓
Resilience and agricultural risk management policy					
Review of Irrigation Policy Reform			✓		
Nutrition					
Review of Animal Health Bill			✓		
Review of Livestock Production Bill			✓		
Total at Each Stage at End of Project	1	1	6	4	13

COMPONENT 1. PROJECT LEGACY: MINISTRY OF FOOD AND AGRICULTURE'S POLICY UNIT IS READY FOR EFFECTIVE POLICY ANALYSIS

The Ministry of Food and Agriculture has limited capacity to develop and implement agricultural policies based on rigorous technical analysis that would shape policies to spur demand, incentivize production through the use of improved inputs, and promote a healthy agriculture sector. In this context, the ministry's Policy Unit lacks technical skills to adequately fulfill its mandate to undertake agriculture policy analysis to guide policymaking, resulting in agriculture policy decisions that are not consistently grounded in critical economic analysis.

Since the Agriculture Policy Support Project's inception, the project has collaborated with the ministry's senior management to empower the Policy Unit to carry out its mandate. Due to competing ministry priorities, it took until the third year of the project for the project's subcontractor, Iowa State University, to be able to assess the Policy Unit's institutional and staff capacity needs and develop a roadmap for its strengthening. This was followed by a roundtable brainstorming session that discussed the capacity building framework. The project facilitated the participation of representatives from the Zambian Indaba Agriculture Policy Research Institute and the Ethiopian Development Research Institute, Africa's two leading agriculture policy think tanks.

Recommendations implemented from the brainstorming include 1) the ministry continuing to host the Policy Unit to make it more relevant for the ministry’s work as participants suggested the establishment of a think tank similar to the Indaba Agriculture Policy Research Institute or the Ethiopian Development Research Institute; 2) the project providing basic training on policy analysis for 14 staff to assess the ministry’s professional level (see One-Week Training on Fundamentals of Policy Analysis box below) and identifying four staff to receive further training to become the Policy Unit’s core policy analysis team; and 3) the project engaging local think tanks to provide the Policy Unit with hands-on training.

I am happy that it is now possible to subject the Ministry of Food and Agriculture’s policies to rigorous analysis. The coaching and training is the first of its kind in my more than twenty years at the ministry.

—DANIEL OHEMENG-BOATENG,
DIRECTOR, POLICY, PLANNING,
MONITORING, AND EVALUATION,
MINISTRY OF FOOD AND
AGRICULTURE

The project commissioned ISSER to design and implement a three-week training for 19 selected ministry staff from the Policy Unit and PPMED. Participants, including the Policy Unit’s core team, focused on project planning, the policy cycle, M&E, and policy analysis. The trainees developed policy briefs and presented them at the closing ceremony. The policy briefs illustrated how valuable the training was for enhancing the policy analysis capacity of ministry staff, reflected the participants’ comprehensive understanding of the policy issues at hand, and demonstrated the consequences and impacts resulting from a given course of

- ONE-WEEK TRAINING ON FUNDAMENTALS OF POLICY ANALYSIS**
- Basics of final consumer decisions and producer decisions (supply and input demand)
 - Competitive market equilibrium
 - Policy analysis with price policy interventions
 - Taxes in non-traded markets (output and input distortions)
 - Policies in importable and exportable markets
 - Arbitrage over space (world markets with large exporter)

action or non-action. Based on this successful training, the project, Iowa State, and ISSER collaborated to develop a mentoring and coaching approach through which ISSER could provide hands-on mentoring and coaching for the Policy Unit’s core team to build their capacity further in rigorous policy analysis and to develop policy briefs for ministry policymakers. The project also supplied the Policy Unit with six laptops, six hard drives, two MiFis, 12 memory sticks, and 10 textbooks to ensure they had the tools to maintain institutional capacity. Despite not being able to meet twice a week as planned due to ministry priorities, ISSER and the Policy Unit’s core team completed the mentoring and coaching curricula and mentees produced the four policy briefs presented below:

- *Assessment of METASIP I and II*
- *Planting for Food and Jobs (PFJ): Status Report for Fertilizer and Seed Components*

- *Ghana’s Agriculture Expenditure Trends: Assessment of Expenditure and Growth Rates (Malabo Targets)*
- *Agriculture Sector and Ghana’s 2018 Budget: Ministry of Food and Agriculture in Focus*

The mentees presented their policy briefs at two “brown bag” sessions organized by the ministry and the project in the third quarter of Fiscal Year 5. The mentees demonstrated the skills they had acquired with ISSER support and impressed brown bag participants. They also received comments to improve the quality of their policy briefs for further dissemination. ISSER’s final evaluation declared that the ministry staff has had sufficient training, especially in data management and analysis, which should help them in their policy analysis role in the ministry. The project recommends that the ministry staff who underwent the training be challenged in their work so that they can apply the tools and skills that they have learned.

I am amazed and impressed with what I am witnessing today because I never imagined that such critical analysis can take place in the ministry. I will recommend that a presentation be made at a directors’ meeting for adoption, and I will be pleased to brief the Hon. Minister and generate his interest in this new dimension.

— MR. SETH OSEI AKOTO,
DIRECTOR FOR CROPS SERVICES,
MINISTRY OF FOOD AND
AGRICULTURE

Charting a New Course in the Ministry’s Policy Unit and ISSER Relationship: Considerations for an Enhanced Mentoring and Coaching Program

Through the Agriculture Policy Support Project facilitation, ISSER and the ministry agreed to sustain this new professional relationship and continue the coaching program beyond the life of the project. To realize this partnership arrangement, the project drafted a letter of intent for their review and signature. The letter is intended to extend and expand the professional relations established between the two institutions, per the project’s interventions, and to continue to deepen this relationship on a long-term, sustainable basis for the mutual benefit of both parties.

Through the Agriculture Policy Support Project training and mentoring, I’m now able to translate my economic theory knowledge into practical analysis. Also, I have a better understanding and appreciation for bridging theory and practice. My colleagues and I were excited about the mentoring program, especially since we produced the policy brief on the fall army worm. We thank USAID for this.

— FAISAL MUNKAILA, SENIOR
AGRICULTURE ECONOMIST,
POLICY UNIT

Continuing the mentoring and coaching program will contribute to enhancing the ministry’s capacity to undertake rigorous policy analysis and develop appropriate policy briefs for policymakers in the Ghanaian government. This will help to improve the overall policymaking process in the public sector in Ghana, especially in

agriculture. Improved Ministry of Food and Agriculture policy analysis capacity will introduce new dimensions into Ghana's agriculture policy formulation dynamics through the production of critical sector analysis and evidence to feed into agriculture policy decisions. This will allow the government to develop and implement agriculture policies that stem from rigorous analysis to identify and remove private sector binding constraints and allow for increased private investments for long-term agriculture development.



PHOTO: Agriculture Policy Support Project

The director of the Policy, Planning, Monitoring and Evaluation Directorate provides feedback to the project's research mentees' policy brief presentations. The mentees' improved research capacity in the Policy Unit now provides rigorous analysis and evidence for agriculture policy decisions.

Based on their experience with the Policy Unit, ISSER will develop and present a case study to interested ministries to scale up the coaching and mentoring initiative. ISSER believes that, as a public sector think tank, they should provide this support to other entities to increase capacity and attract the development community for funding.

The Agriculture Policy Support Project's training of the core team of four analysts and linking them to ISSER for mentoring and coaching is an important legacy for the ministry to continue to develop and sustain through a stronger relationship with ISSER.

— ANGELA MERCY DANNON
DIRECTOR, POLICY PLANNING,
MONITORING, AND EVALUATION
DIRECTORATE, MINISTRY OF
FOOD AND AGRICULTURE

SNAPSHOT

Agriculture Policy Support Project Works with Government to Improve Land Administration

Strengthening Ghana's Land Management System to promote private sector investment



PHOTO: Agriculture Policy Support Project

The Lands Commission engages with traditional leaders, the main custodians of land in Ghana, to provide input to draft a large-scale land transactions policy. Traditional leaders' input in a revised Land Bill will help improve Ghana's land tenure administration.

“As a women's advocate, it was encouraging that the new guidelines took into consideration the difficulties women face in procuring farm land and protecting lands already owned by women.”

— Barbara Ayensu, *Leadership in Advocacy for Women in Africa*

Private investment in Ghanaian agriculture through the acquisition of large tracts of land is a growing trend and an important step to developing the country's agricultural sector. However, due to an absence of strong land administration guidelines, these acquisitions often hurt vulnerable smallholder farmers and lead to poor land use. To ensure that private sector investment in agriculture leads to equitable economic growth, the Agriculture Policy Support Project partnered with the government of Ghana to develop and finalize a set of land policy guidelines, “Guidelines for Large-Scale Land Transactions in Ghana.”

Smallholder farmers make up the majority of land users in areas where demand for land is highest, yet they often do not own the land where they live and work. According to Chief Naba Awuni Azebire Johnson, a traditional land owner in Yorogo, “In many instances, decisions to sell lands in my traditional area have been based on monetary enticements” and do not consider the rights and livelihoods of land users.

The new “Guidelines for Large-Scale Land Transactions in Ghana” will address this problem directly. The guidelines require investors to prepare an environmental, social, and economic impact assessment of their proposed acquisition for community review. Community members, relevant government representatives, NGOs, and other stakeholders then convene a forum in which they have a voice in the decision to accept, reject, or modify planned acquisitions. When an acquisition occurs, investors and community stakeholders must then agree upon a memorandum of understanding that defines respective rights and responsibilities.

The new guidelines also include mechanisms to ensure that investors conform to the approved uses of the lands they acquire. This will cut down on unproductive land speculation, protect genuine investors, and ensure that lands are put to their most productive use.

The guidelines were drafted through an inclusive process, with the project providing technical input into the draft bill and providing financial assistance to two community validation workshops. Workshop participants expressed confidence that the guidelines will address their needs and concerns. One farmer, Fuseini Yakubu from Kharma Farms in Tamale, noted, “It took us almost two years to strike a deal with our landlords to acquire land for our business, and I hope these guidelines will change all that.”

SNAPSHOT

In-country Collaboration to Enhance Analytical Skills for Policymaking

Building the capacities of Ministry of Food and Agriculture Policy Unit staff to deliver sound, evidence-based policy advice



PHOTO: Agriculture Policy Support Project

A Policy Unit mentee presents his policy brief on the performance of the national agriculture investment plans and Medium-Term Agriculture Sector Investment Plan (I & II). Through policy analysis training by the Agriculture Policy Support Project, the Policy Unit can now develop policy briefs as a key tool to provide recommendations to the ministry's management on policy direction to achieve sustainable agriculture growth.

"I am amazed and impressed with what I am witnessing today because I never imagined that such critical analysis can take place in the ministry. I will recommend that a presentation be made at a Directors' meeting for adoption and I will be pleased to brief the Hon. Minister and generate his interest in this new dimension."

— Mr. Seth Osei Akoto,
Director
Crops Services Directorate

Appropriate, evidence-based agriculture policies play a significant role in addressing food security challenges and attracting increased private sector investments. In Ghana, the Ministry of Food and Agriculture has a Policy Unit which previously lacked needed expertise to carry out rigorous policy analysis and provide crucial evidence to allow the country to develop and implement more effective and efficient agriculture policies.

To improve the situation, USAID, through the Feed the Future Agriculture Policy Support Project, worked with the Institute of Statistical, Social and Economic Research (ISSER) at the University of Ghana. Together, they designed and implemented a program to build the analytical skills of the Policy Unit staff through targeted training and coaching. This improved capacity enabled the unit to begin addressing important constraints, including the production of four policy briefs that were presented and discussed with public and private sector stakeholders in two brown bag sessions.

The coaching approach paired the staffer and mentor to work collectively on a given policy topic. Together, they identified the problem, boiled it down into an economic issue, and defined the dimensions (national, regional, household level). They conducted quantitative analysis using economic tools, estimated impacts, and then carefully defined implications of policy various options.

According to ISSER, the Policy Unit staff are sufficiently trained now in data management and analysis. Mr. Emmanuel Addo, an agriculture economist and Policy Unit trainee, indicated that "the coaching program has enhanced my knowledge and skills to conduct research and put together a good policy brief for the consumption of policymakers."

"By combining research with our work, I believe we will be able to target our policies better to get the needed results we are looking to achieve," said Ayueboro Adama, an agriculture economist and Policy Unit trainee. ISSER now plans to sustain the coaching program beyond USAID support, and expand it to other public entities.

SNAPSHOT

Collecting Agricultural Statistics: Moving from Paper-Based to Mobile Interview Technology

Promoting accurate and efficient data collection through modern technology



PHOTO: Agriculture Policy Support Project

District agriculture statistics officers receive field-based mobile data collection training.

“This application will change Ghana’s agricultural database because it is authentic and meets international standards.”

— Francis Ahiamatah, Monitoring and Information System Officer, Ministry of Food and Agriculture

In Ghana, agricultural statistics are often poor quality, irrelevant, and of little use in national policymaking. To address some of these weaknesses, the Agriculture Policy Support Project supported the Statistics, Research and Information Directorate (SRID) of the Ministry of Food and Agriculture to improve the collection, analysis, and management of agricultural statistics, thus contributing to the strengthening of policymaking decisions.

Among the initiatives to support SRID, the project assisted the directorate with design and development of a system to conduct interviews using mobile technology. The system has been installed on state-of-the-art 3G Android tablets. SRID also received a high-end computer server to house and aggregate the data received in real time from the tablets. A pilot conducted on the new tablets demonstrated that by using digital technology to interview farmers, interviewers take less time to conduct interviews, input data, and download it to the main server for data management and analysis.

Complementing the purchase of the digital equipment, the project has trained more than 200 ministry officers responsible for survey data collection in mobile data collection to best leverage this new technology.

Ghanaian agriculture statistical officers say that they are highly motivated by the introduction of digital technology for data gathering. Francis Ahiamatah, a monitoring and information system officer at SRID, noted, “Once data collection is completed in the field, the data is automatically uploaded to a secure server in real time. This way the data is immediately available to download, review, and analyze.”

Now that they have the survey data at their fingertips, Mr. Ahiamatah noted, “We are now able to run analyses and write manuscripts shortly after data collection. This is such a leap from the huge delays we have experienced in the past when collecting data on paper forms. This new system does not require several data entry clerks and a database developer, working over several days as in the old paper-based system.”

With the addition of the tablets to its survey tools, the ministry is moving from using pencil and paper interviews to gathering agricultural statistics in real-time using mobile data collection. This digital transformation, in turn, will enhance the ministry’s Annual Agricultural Production and Market Survey. The Ghana Statistical Service and the ministry are currently conducting a national agriculture census using the new technology, and they have deployed the project-trained staff for this massive national exercise.

COMPONENT 2. POLICY RESEARCH: AVAILABILITY OF RIGOROUS POLICY ANALYSIS FOR EVIDENCE-BASED POLICYMAKING IMPROVED

Formulating and implementing policies and programs to modernize the agriculture sector in Ghana encounters obstacles in two key areas:

- Increasing the availability of high-quality, rigorous policy analysis for evidenced-based policymaking; and
- Improving policy research capacity of key public and private research institutions and CSOs.

The Agriculture Policy Support Project's contract highlights three areas of weakness that the public sector faces in implementing policies and programs: 1) assembling and analyzing data, 2) developing and implementing performance monitoring plans and conducting policy analysis, and 3) developing recommendations and communicating with stakeholders early enough in the policy process to ensure impact. To improve this situation, as presented earlier in this report, the project trained METASIP implementing institutions and Ministry of Food and Agriculture staff, especially in its Policy Unit, in the policy cycle, policy analyses, planning, and monitoring. Additionally, the project's research component increased the availability of rigorous policy analysis by engaging local researchers to undertake priority studies and facilitated meetings between policymakers, researchers and other stakeholders to discuss research findings and recommendations. The project has also improved the institutional capacities for policy research in four research institutions and universities to continue supplying high-quality studies for evidence-based policymaking.

Improved policies are critical to creating an enabling environment for the private sector in agriculture and to encourage rapid economic growth and poverty reduction. Achieving these goals requires engagement between policymakers and research institutions and universities to explore policy alternatives and evaluate government programs and their impacts. Research can demonstrate which policy options and programs most effectively foster an environment for agriculture to drive sustainable economic growth. If research data and recommendations are available, policymakers can better analyze the impacts of policy choices, prioritize resource allocation across sectors, understand investment trade-offs involved in growth, calculate and manage risks, and leverage cost effective synergies between different METASIP programs.

High-Quality Research Capacity Enhanced: Increasing the Availability of Research for Policymaking Objectives

Leveraging the Small-Grants Program to Develop and Increase Availability of Agriculture Policy Research

For the policy research component, the project leveraged the small-grants program, in coordination with Component 1 policy activities, focusing on needs-based agriculture research that can be turned into action. The project supported short-term research activities that analyzed policies aligned with government priorities. More specifically, the project supported creative and innovative partnerships among the public, private, and civil society sectors at all levels to develop 25 high-quality research, thesis,

dissertation, and special policy studies to provide empirical evidence for policymaking (see Exhibit 13).

EXHIBIT 13. PROJECT RESPONDS TO METASIP RESEARCH PRIORITIES



Through competitive bidding, the project selected the following five local research institutions to receive grants and subcontracts to undertake research studies.

- University of Cape Coast
- University for Development Studies
- Crops Research Institute
- Science and Technology Policy Research Institute
- ISSER

Subcontractors and consultants from Iowa State University and Ghanaian think tanks such as GIMPA and CEPA carried out additional project-funded research, assessments, and special studies (see Annex B. Agriculture Policy Research Studies, Assessments, and Reports).

These high-caliber, evidence-based research products are providing the government of Ghana with a wealth of knowledge to improve evidence-based policymaking and to incorporate needed reforms to strengthen the implementation of current government priorities. When implemented, the recommendations from these studies will improve policy planning, monitoring, and impact assessment; contribute to program coordination; and reinforce engagement with the research community and agriculture public and private stakeholders.

Agriculture Policy Research Summits to Disseminate and Share Knowledge

The Agriculture Policy Support Project held two agriculture policy research summits and additional events in 2017 and 2018 to share the findings and recommendations from the research studies conducted under the project. The summits convened researchers, policymakers, the private sector, development partners, and other stakeholders. The Ministry of Food and Agriculture’s high-level management, including two deputy ministers and line directors, attended both summits and indicated that the recommendations will be included in the decision-making process. The ministry’s top management also highlighted these multi-stakeholder agriculture policy dialogues as much needed engagements that had not occurred for a long time. Ministry management has pledged to continue to partner with the research community to hold annual policy research summits.

Project-supported research findings have generated data to fill knowledge gaps, address bottlenecks, and equip policymakers with empirical evidence, relevant analysis, and recommendations for informed agriculture policy decisions and METASIP program implementation.



PHOTO: Agriculture Policy Support Project.

Feed the Future partners participate in the Agriculture Policy Research Summit 2018. The project presented recommendations to improve key agriculture policy implementations. The Summit also strengthened the relationship between the ministry and the research community to find solutions to foster Ghana’s agriculture development.

High-Quality Research Capacity Enhanced: Capacity Building of Local Research Institutions

To sustain the availability of rigorous research analysis for policymaking, the Agriculture Policy Support Project selected and worked with seven local research entities throughout the project and provided direct support to four of them to improve institutional capacity, especially to modernize limited and outdated ICT equipment and software (see Training Researchers from Four Institutions in Statistical Analysis Software box). The project provided equipment to increase ICT capacity for agricultural research such as analytical and statistical software packages, training in modelling and analysis for researchers, and support for professional research meetings. Additionally, researchers' capacities to perform a broad range of rigorous statistical modelling and data analyses and to generate findings to inform policy decision-makers was improved.

TRAINING RESEARCHERS FROM FOUR INSTITUTIONS IN STATISTICAL ANALYSIS SOFTWARE (SAS)

- Inputting data into SAS
- Preparing data for analysis using SAS
- Comparing means using T-test
- Analysis of variance
- Correlation and regression
- Logistics regression
- Using SAS to create graphs and tables
- Multiple linear regression and model building
- Hypothesis testing (one- and two-sample)
- Categorical data analysis using SAS
- Factor analysis using SAS
- Cluster analysis using SAS
- How to run a simple linear regression in SAS
- Discriminant analysis

The project offered grant opportunities to local institutions and researchers, which filled a gap in funds necessary to expand research activities. Grantees can now use this experience to leverage and attract additional research funding.



PHOTO: Agriculture Policy Support Project

Researchers from the University for Development Studies, University of Cape Coast, CSIR – Crops Research Institute, and CSIR – Science and Technology Policy Research Institute, participate in statistical analysis software (SAS) training. This has increased the availability of rigorous research analysis for policymaking.

The impact of the project's collaboration with local research institutions to produce high-quality policy research papers and analysis, and the improvement of institutional facilities, has enabled institutions and researchers to effectively engage with the government, METASIP implementing institutions, the private sector, and civil society to provide research analysis to guide evidence-based agriculture policy formulation.

COMPONENT 2. PROJECT LEGACY: ENHANCED COLLABORATION BETWEEN POLICYMAKERS AND RESEARCHERS FOR EVIDENCE-BASED AGRICULTURE POLICIES

Increasing the Production of Technical and Statistically Relevant Reports

The impact of the Agriculture Policy Support Project's support for agriculture policy research has created opportunities for research institutions to deliver high-quality policy research and contribute to effective and efficient agriculture policies and programs in Ghana. Through the project's grants and subcontracts, the Ministry of Food and Agriculture has 25 high-quality agriculture policy research studies and technical reports tailored to meet the needs of government, civil society, and the private sector. Prior to the project, consultations with the ministry to develop policy studies did not occur. Project-supported studies used statistical analysis and detailed methodology, with results and outcomes that can be replicated after project closeout. Replication is important for assurance that results are valid and reliable, can be applied to other situations, and can trigger new research.

To sustain the flow of research knowledge to policymakers, the project has partnered with agribusiness and communication sciences faculty at the University for Development Studies to edit and co-publish 15 project-sponsored research studies as agriculture policy research volumes. Copies are available at the Ministry of Food and Agriculture, university libraries in Ghana, and with other relevant stakeholders. Additionally, the project has developed a book of abstracts of the project-supported research and studies and has distributed it to partners and stakeholders.

Research Institutions Engage Effectively and Continually in the Policy Process

Through research grant implementation and dissemination at the two research summits convened by the project and the Ministry of Food and Agriculture, Ghanaian research institutions have gained recognition and developed closer relationships with the government, the private sector, CSOs, and FBOs to collaborate to identify research and policy priorities. The ministry is now responsive to research findings and recommendations. As mentioned above, the ministry and ISSER have pledged to maintain their relationships to continue building the Policy Unit's capacity and replicate the annual agriculture policy research summits to share research knowledge and deliberate on agriculture policy issues. Based on these nascent initiatives, the use of research evidence in policymaking will be sustained.

Local Research Institutions Improve Capacity for Agriculture Policy Research

The project worked with four local research institutions to improve their organizational and human capacity for policy research. Researchers improved statistical modelling

We have continued to make good use of the Statistical Analysis Software manual that we developed with the Agriculture Policy Support Project support. Because of this collaboration, the Directorate of Training and Innovation at GIMPA has expanded its short-term training courses for M&E officers from private and public organizations.

The five institutions that participated in the [project]-sponsored SAS training continue to use what they learned. The interest in SAS is great; it is a useful software tool.

— PAUL REX DANQUAH, GIMPA CONSULTANT

and analysis using SAS and received improved ICT equipment and software for research analysis. GIMPA has continued using the project's training modules to benefit the wider research community in Ghana. Local researchers received international recognition for two of the project-supported research studies. Chemonics' Agriculture and Food Security Practice is promoting these studies to international audiences and development partners through social media, conferences, and AgriLinks events.

Feed the Future and University of Cape Coast Analyze Food Security Intervention Impacts to Improve Future Programs

Evidence-based recommendations will improve agriculture development projects’ design, outcomes, and impact



PHOTO: Agriculture Policy Support Project

A researcher from the University of Cape Coast providing policy recommendations to improve Ghana's food security during the Agriculture Policy Research Summit 2017.

“With the Northern, Upper East, and Upper West Regions as the food basket of the country, it is important that we effectively plan food security interventions to ensure our beneficiaries derive their full benefits.”

— Daniel Ohemeng-Boateng, Director, Policy, Planning, Monitoring and Evaluation Directorate, Ministry of Food and Agriculture

Studies show that northern Ghana lags behind the rest of the country in socioeconomic development and food security. Moreover, gender disparities and income gaps between urban and rural residents in the region are wide. Over the years, donors, including Feed the Future, have targeted Northern Ghana to promote agricultural development as an avenue to address poverty, stimulate socioeconomic growth, and ensure food security.

KEY FINDINGS FROM THE STUDY

- Analysis of impact has not been taken seriously at the design, implementation, and evaluation phases of projects. This makes it difficult to draw conclusions and learn from past efforts.
- Only 14 percent of interventions reported increases in beneficiary yields and only seven percent of interventions showed increases in household food availability.
- Approximately 44 percent of projects reported increases in beneficiary incomes.
- Interventions with longer durations – especially related to extension and capacity building for the adoption of technologies – achieved better results.

The Agriculture Policy Support Project provided a grant to University of Cape Coast to assess the impacts of agricultural interventions in Northern Ghana between 2006 and 2016. This study is one of a set of policy research documents that the Ministry of Food and Agriculture and the project selected to guide ministry priorities and improve future programs. Major recommendations of the study include:

- Policymakers and development partners should develop food security indicators that measure the impact of interventions from design to implementation and evaluation.
- Food security instruments used in program M&E across interventions in the country should be synchronized.
- Ghana’s government should establish a national database to facilitate compliance and reduce duplication of efforts.
- Food security interventions should have longer durations to ensure impact.

According to Harry Bleppony, deputy director of the Crop Services Directorate, “This study will inform us whether food-security interventions are truly working or if there is a need to re-strategize.” The ministry’s new administration indicates that it wishes to participate more in the design and implementation of agricultural programs financed by the international community. The project will share its studies through forums and other channels to support donors and the ministry in designing future impactful food security interventions in Ghana.

COMPONENT 3. POLICY ADVOCACY: VOICES OF CIVIL SOCIETY, PRIVATE SECTOR, AND MEDIA IN THE PUBLIC POLICY PROCESS CLARIFIED AND AMPLIFIED

In addition to having appropriate information available to improve the food security enabling environment for investment, the private sector, civil society, and media must have opportunities to provide input into agriculture policy development. Although the participation of these stakeholders in agriculture policy development has been identified as important to the development of Ghana's agriculture sector, their roles have been historically vague in the policy formation process. Furthermore, many stakeholders in the Ghana food security policy process needed to build their capacities to effectively advocate for policies that serve their long-term interest and create adequate mechanisms for their contributions to be organized and integrated into the policy decision-making process. The Agriculture Policy Support Project implemented activities to support civil society, media, and private and seed sector organizations in strengthening their capacity to advocate for pro-business agriculture reforms and to champion public-private dialogues for agriculture policy changes needed to increase private sector investment. The project partnered with and supported private sector organizations, including civil society and the media, to enhance their participation in the policymaking process through a three-pronged strategy:

- Providing grants to promote and strengthen public-private dialogues at the district, regional, and national levels for food security reforms, to ultimately institutionalize permanent dialogue platforms;
- Providing grants and training for organizational and advocacy capacity building to these organizations to enhance pro-business agriculture sector reforms, leading to stronger organizations that will continue advocating for policy reforms and defending the interests of their membership; and
- Strengthening policy advocacy efforts through partnership with other Feed the Future projects with the aim of creating synergies to enhance development impacts through leveraging their respective capacities.

Improving the Engagement of Private Sector and CSOs in Food Security Reforms and Implementation

Partnering with Local CSOs and Private Sector Associations to Strengthen and Promote Public-Private Dialogues on Agriculture Policy

The project provided grant support to 20 civil society organizations and private sector associations to enhance public-private dialogues at district, regional, and national levels. The dialogues and public education activities enabled regional and district authorities and the public to better understand the context and objectives of the national agriculture policy documents and laws such as FASDEP, METASIP, and Ghana's Seed Law Act 803 of 2010. The project exceeded its target for policy recommendations to be implemented by 197 percent, meaning that nearly 60 percent of all recommendations generated at project-supported public-private dialogues have been put into action (see box on Volta Region below).

District authorities now understand how the policies tie into their own local programs and have assessed the preparedness of their respective institutions to respond to demands from farmers. Additionally, the district-level dialogues covered a wide range of agriculture-related issues related to newly gained policy knowledge:

- Advocating for agriculture inputs subsidy provision;
- Establishing agriculture subcommittees in the district assemblies, which were non-existent;
- Review of budget allocations to ramp up agriculture programs to farmers, especially to expand agriculture extension services to women;
- Women’s land rights issues; and
- Addressing environmental degradation from indiscriminate tree or bush fires.

PROJECT GRANTEE POSITIONS VOLTA REGION TO BECOME THE COUNTRY’S RICE BASKET

Through its Agriculture Policy Support Project grant, SAFE-Ghana strengthened the organizational and advocacy capacities of Volta Region rice farmers through the establishment of multi-stakeholder strategic discussions across the 15 rice-producing districts in the region.

The multi-stakeholder consultative meetings led to the formation of the Volta Rice Producers Network, which became the voice of rice farmers in that region. SAFE-Ghana partnered with the Volta Region Rice Producers Network for radio discussions to increase awareness about the region’s potential to become the “rice basket” of Ghana.

This drew policymakers’ attention to the need to strengthen public sector support and services to develop this potential further. The advocacy activities aimed to attract the attention of investors, service providers, financial institutions, and development partners to examine the potential of the more than 3,000 underdeveloped and underused valleys in the Volta Region and transform it into the country’s leading rice producer. Based on the successful implementation of the project’s grant, SAFE-Ghana received a grant from the Netherlands’ SNV 2Scale Project, which resulted in the strengthening of the Volta Region Rice Producers Network, development of five rice clusters to expand production in the region, and implementation of 25 pilot rice seed production sites and farm machinery demonstrations in strategic rice production districts in the region.

SAFE’s team leader Patrick K. Avumegah states, “Many donors [did] not believe in SAFE-Ghana at the beginning. We remain grateful to USAID for the support and capacity building to enable a relatively unknown and young organization to spearhead such massive work in championing rice production in the Volta Region. SAFE-Ghana, through its advocacy efforts, is now recognized as the voice of the rice farmers in the Volta Region.”

A radio station, Rite 90.1 FM, in the Eastern Region undertook a project with project grant funds called Mobilizing Action Towards Agriculture Sector Improvement (MAASI). The project advocated for increased resource allocation to six districts: Asuogyaman, Lower Manya Krobo, Upper Manya Krobo, Yilo Krobo, Akuapem North, and Shai-Osudoku. As a result, district officials increased resource allocation for agriculture development and established agriculture subcommittees in these

districts. The subcommittees have become the voice of the farmers advocating and lobbying for agriculture issues on the floor of the Assemblies. The success of the MAASI project motivated Rite 90.1 FM to institute an annual platform to convene major public and private sector agriculture stakeholders to discuss agriculture development in the six project districts in the Eastern Region. In July 2017, Rite 90.1 FM organized its Second Annual Rite FM Agriculture Forum at Kpong – Promoting Agribusiness through Appropriate Technology and Innovation. Rite FM also used the radio to promote agriculture development through its extension program to farmers.



PHOTO: Rite 90.1 FM

A Rite FM radio presenter hosts a weekly episode of "Kuapa Yo," a farmer radio show that helps to amplify the voice of the private sector on policy issues.

Examples of the Agriculture Policy Support Project’s grants to CSOs (see CSOs Involved in Policy Dialogues and Advocacy box) to strengthen public-private dialogues and impacts of the dialogues are summarized as follows:

Working with CSOs in policy dialogues and advocacy on national, regional, and district level policies, including subsector policies. Below are summaries of some related dialogues’ significant impacts.

- The concerns of women and FBOs about inadequate land access, women’s land rights, extension services, financing, and technical education have attracted the attention of policymakers. For example, these concerns are incorporated into Savannah Agriculture Development Authority’s Medium-Term Development Plan.
- Dialogues have strengthened public-private sector engagements and promoted understanding of government’s agriculture initiatives, which should inform and guide private investors.
- Policy dialogue on extension services to women farmers have empowered this population to demand agriculture extension

CSOs INVOLVED IN POLICY DIALOGUES AND ADVOCACY

- Rite 90.1 FM
- Pan-African Organization for Sustainable Development
- SIRDA
- HAG
- NETRIGHT
- RUWA
- NORTHCODE
- NORPRA
- Roots Link
- Community Life Improvement Program
- Evangelical Presbyterian Development Relief Agency
- Centre for Research in Efficient Agriculture Technology
- SyeComp Ltd.

services in the districts. Their confidence in this area has increased, thereby broadening their readiness to contribute to Ghana’s agriculture development.

- Sensitization of private stakeholders to Plants and Fertilizer Act 803, 2010, contributed to improved law enforcement and compliance, increased capacity of private sector stakeholders in the law implementation process, informed farmers on the adequate use of agrochemicals, and improved access to high-quality agro-inputs, including seeds.
- The youth and women that participated in the advocacy programs were drawn to agriculture, which complemented the Ghanaian government’s policy of attracting youth to the sector.
- Policymakers’ attention was drawn to women’s land rights with a memo to the Parliamentary Select Committee on Lands and Forestry for consideration before the passage of the Land Bill into Law to secure land rights of women for increased investment in agriculture.
- Agribusinesses have joined a platform under the auspices of the Ghana Chamber of Agribusiness with more than 2,700 individual participants from private and public sectors. These individuals are networking and sharing agribusiness technical and market information daily.

Strengthening the capacity of CSOs and individual members through training on the use of gender disaggregated data in gender advocacy. After training the CSOs in gender advocacy and on the use of gender disaggregated data in gender advocacy, the project assessed the gender policy advocacy skills of 20 organizations using an adapted Advocacy Capacity Assessment Tool. The assessment results showed that 17 of the trained CSOs were working toward improving their skills, including the use of evidence for gender advocacy. The project and NETRIGHT then followed up with these 17 CSOs to verify that they could demonstrate knowledge of sources and use of gender disaggregated data in their gender advocacy activities. The follow-up confirmed that 10 CSOs have further demonstrated and used their knowledge and skills to advocate for women's rights in agriculture. Exhibit 14 shows the 10 CSOs that demonstrated knowledge of sources and use of gender disaggregated data on agriculture to conduct gender policy advocacy.

EXHIBIT 14. ILLUSTRATIVE CIVIL SOCIETY ORGANIZATION EVIDENCE-BASED GENDER POLICY ADVOCACY

CIVIL SOCIETY ORGANIZATION	EXAMPLES OF ACTIVITIES AND PUBLICATIONS
Peasant Farmers Association	<p>News article – “Water for jobs and poverty reduction: The story of three communities” https://www.myjoyonline.com/news/2018/march-19th/water-for-jobs-and-poverty-reduction-the-story-of-three-communities.php</p> <p>News article – “PFAG calls on government to empower local seed industry” https://www.ghanamma.com/2018/08/22/pfag-calls-on-government-to-empower-local-seed-industry/</p>

CIVIL SOCIETY ORGANIZATION	EXAMPLES OF ACTIVITIES AND PUBLICATIONS
Gender Centre -Ghana	News article – “Challenge stereotypes that impede progress of girls, Minister urges” https://www.myjoyonline.com/news/2018/March-26th/challenge-stereotypes-that-impede-progress-of-girls-minister-urges.php
Abantu for Development	News article – “Women in Decision Making: It will take Ghana 50 years to achieve gender equality” in Pulse Ghana News, October 2016 https://www.pulse.com.gh/news/politics/women-in-decision-making-it-will-take-ghana-50-years-to-achieve-gender-equality-abantu-id5553779.html
International Federation of Women Lawyers (FIDA – Ghana)	Article -- “Gender Mainstreaming in Oil and Gas Policies and Laws” http://www.ghana.gov.gh/index.php/media-center/features/1326-gender-mainstreaming-in-oil-and-gas-policies-and-laws
General Agriculture Workers Union (GAWU)	Article – “Address challenges facing women in agric – GAWU” https://www.myjoyonline.com/business/2017/october-31st/address-challenges-facing-women-in-agric-gawu.php
Kookoo-Pa	Policy brief – “Economic Empowerment of Women – Key to family transformation,” December 2017
Women in Law & Development – Ghana	Advocacy activity to advance women’s land rights in Ghana based on the Kilimanjaro initiative.
NETRIGHT	Activity – “Women in Agriculture Urge Government to Close Gender Gap,” Ghana Business News, April 2018 https://www.ghanabusinessnews.com/2018/04/22/women-in-agriculture-urge-government-to-close-gender-gap/ Study – “Comparative Analysis of Gender in Agriculture Strategy (GADS II) and Ghana’s Land Bill.”
Farmers Organization Network in Ghana	Network of small-scale FBOs providing policy advocacy skills to its members to contribute to food security in Ghana
Central and Western Fishmongers Improvement Association	Championing women’s rights in the Western Region of Ghana

Supporting media organization to use radio and articles to amplify its voice for agriculture policy reforms at the district level. Below are summaries of some related dialogues’ significant impacts.

- Radio programs on the importance of agriculture in the districts and pressure from informed farmers on public policies compelled public officials to increase resource allocation for agricultural programs in the Yilo Krobo and Asuogyaman districts in the Eastern Region. Officials also awarded a contract for the repair of roads in the districts such as Upper Manya and Yilo Krobo to improve commodity transport and agricultural marketing.
- According to the departments of agriculture from the six districts, because of the MAASI project and the establishment of the agriculture subcommittees, for the 2017 Farmers’ Day celebration, the event’s budget was increased, and members from the agriculture subcommittees helped to prepare and organize the event, which was unprecedented.

- Rite FM 90.1, NETRIGHT, and HAG radio talk shows and advocacy activities contributed to a wider civil society community debate to ensure gender-responsive reforms, especially women’s land rights.
- The use of radio to send extension messages to farmers in Asuoyaman, Yilo Krobo, and Lower and Upper Manya districts in the Eastern Region contributed to enhancing farmers practices and boosting their production.
- The position papers and blog articles produced from the forums compelled policymakers to introduce and implement policy interventions to positively affect the livelihoods of youth and women. Recommendations stemming from these activities are contributing to adoption of policy reforms, especially to transform youth policy and youth in agriculture programs in Ghana, such as introducing agriculture technical and vocational training courses in animal husbandry, fish farming, crop farming, and agronomy.

Strengthening the Capacity of the Private Sector to Advocate for Pro-Business Agriculture Sector Reforms

The effectiveness of the private sector in organizing the significant dialogues presented in the previous section can be attributed to the Agriculture Policy Support Project’s work to strengthen participants’ organizational capacity and advocacy skills. Early on, the project’s mapping exercise identified 43 agriculture-related private sector associations and CSOs in the south and north. The project conducted assessments using the Organizational Capacity Assessment Tool for these organizations, which revealed weak institutional, policy analysis, and advocacy capacities. The media organizations that the project assessed had limited skills in writing compelling agriculture stories and analyzing agriculture policy issues that could attract the attention of public officials and policymakers.

Through Rite FM agriculture extension radio programs, I improved my farming practices and was judged the best district farmer in 2016. I carry my radio to the farm every day. Rite FM hosts agriculture extension agents to educate farmers on the best farming practices.

— BENJAMIN AKOTO, FARMER,
ASUOGYAMAN DISTRICT

When we started our organization, we had no knowledge of how policies are analyzed, formulated, implemented, or monitored. Most of our activities are service delivery to beneficiaries with no attention to policy advocacy targeted at the authorities. Because of our limited capacity to even identify the issues, we had no knowledge on how to design a plan for a successful policy advocacy campaign. [The project’s] advocacy training changed the orientation of our organization — management reviewed our mission statement to include advocacy and revamped the advocacy unit. We are now involved in advocacy to empower women in the Northern Region of Ghana.

— ALIMA SAGITO, EXECUTIVE
DIRECTOR, SIRDA

To address these weaknesses, the project commissioned two local Ghanaian training firms — Integrated Management Consultancy Ltd. and West Africa Civil Society Institute — to train these 43 entities to build organizational and policy advocacy capacity for more effective participation in the policy formation process (see Capacity Building of Civil and Private Sector Organizations box). While West Africa Civil Society Institute’s training curricula focused on policy analysis and policy advocacy, Integrated Management Consultancy Ltd. provided training in financial management, human resources, and technical and grants proposal writing.

CAPACITY BUILDING OF CIVIL SOCIETY AND PRIVATE SECTOR ORGANIZATIONS

Integrated Management Consultancy Ltd.

- Administrative management
- Financial management
- Operations management
- Human resources management
- Service delivery system
- Grant proposal writing
- Technical report writing
- Program M&E

West Africa Civil Society Institute

- Governance and leadership
- Membership development
- Fundraising
- Agriculture policy analysis
- Policy advocacy

Apart from the enhancement of CSOs’ capacity in policy advocacy, the Agriculture Policy Support Project also contributed to improving their institutional capacity in governance, financial management practices, operational management practices, and proposal writing. As a result, they have been able to receive funding from other Feed the Future projects and international development partners (listed below) to continue advocacy activities and, with some, scale up work started under the project’s grants.

- Africa Lead
- ADVANCE II
- U.K. Department for International Development
- Réseau des Organisations Paysannes et Producteurs Agricoles de l’Afrique de l’Ouest (West African sub-regional farmer organization network based in Burkina Faso)
- SNV
- Global Communities

Examples of the impacts of the project’s capacity building grants to CSOs on their organizational and advocacy capacities are summarized below.

Farmers Organization Network of Ghana. With Agriculture Policy Support Project support, the organization developed its financial management manuals to improve operational performance. Based on its enhanced capacity, the organization has secured funding support from Réseau des Organisations Paysannes et Producteurs Agricoles de l’Afrique de l’Ouest — a West Africa sub-regional farmer organization network based in Burkina Faso — to support capacity development and capitalization of two farmer organizations in Greater Accra and Brong-Ahafo Regions to expand rabbit rearing and tiger nut farming.

Development Institute. This organization has integrated M&E into project implementation to improve transparency in its financial management system. Training in proposal writing and advocacy skills led the organization to successfully bid for two grants. The first is a grant from International Union for Nature Conservation for implementing community-based conservation initiatives in three communities in the Ho West district of the Volta Region. The second is the Dutch-funded Volta Basin Biodiversity and Advocacy project for the joint management of the Volta Basin, a common resource shared by Ghana and Burkina Faso.

URBANET. With project support, URBANET has developed its financial management procedures, enhanced its project proposal development capacity, and strengthened its policy advocacy skills. The organization has become one of the most highly recognized CSOs in the Northern Region and is currently the convener and host of the Northern Region CSO platform on agriculture, which is supported by USAID's Northern Ghana Governance Activity. URBANET is one of the few CSOs in the Northern Region participating in the quarterly ASWG meetings that occur in Accra. Based on its enhanced organizational capacities, URBANET has been able to secure funding from other sources. This includes funding from the Empower-Emerging Market Foundation, a U.S. charity organization, to train young farmers to become seed producers in Savelugu/Nanton District and funding from the Department for International Development's Market Development Program to enhance the vegetable value chains in the Northern Region. The organization has also received a grant from the Feed the Future ADVANCE II Project to enhance the advocacy capacity of FBOs in the Northern Region.

NORPRA. As part of its policy advocacy activities, NORPRA published an article in the Ghanaian media in July 2016 titled, "Farmers Advocate for One Community, One Dam," which attracted the attention of the biggest opposition party in the 2016 election in Ghana. The party eventually adopted this NORPRA proposal as a campaign promise to the people of northern Ghana, and this is now the current administration's "One Village, One Dam" program. The project's grant strengthened the grantee's advocacy position to the extent that NORPRA has partnered with other CSOs in the Savannah Accelerated Development Authority Zone to organize a national forum on the transformation of the Northern Savannah Ecological Zone, for which competing political parties in the 2016 elections committed to the Savannah Accelerated Development Authority Plan.

Training Media Organizations for Policy Advocacy

As most people in Ghana receive their information either through the radio, newspaper, or TV, engaging and improving the technical reporting capacity of the media is extremely important to the public policy process. Yet media reports often fail to accurately represent the facts related to policy debates. The Agriculture Policy Support Project's assessment of the media revealed weak capacity in agriculture storytelling, policy analysis, and media advocacy. The project trained 141 media personnel from the Ghana Independent Broadcasters Association, Ghana Agriculture and Rural Development Journalist Association (GARDJA), radio, newspapers, television, and online communication outlets in Accra and in the Savannah Accelerated Development Authority Zone.

The main purpose of the training was to encourage and motivate journalists to expand and provide high-quality coverage of agriculture policy issues in the Ghanaian media. The journalists received training in effective communication on agriculture policies, in-depth analysis of agriculture policies, agriculture reporting, gender mainstreaming reporting, advocacy skills, agriculture budgeting and public expenditure tracking, and feature-article writing. An outcome from convening the journalists was the construction of a Facebook platform “Agric Journalists Ghana” that has networked journalists in agriculture reporting. The Facebook page connects journalists who are interested in agriculture policy issues and are ready and willing to increase media coverage of agriculture across Ghana. Aside from newspaper articles on agriculture-related issues, further stories on agriculture can now also found on the GARDJA website (www.gardja.org) and the website of AgricInGhana Media, an agricultural news hub (www.agricinghana.com).

At the project’s close, GARDJA’s membership has expanded from a few journalists based in Kumasi to more than 80 journalists representing all 10 regions of Ghana. In 2016, GARDJA became a member of the International Federation of Agriculture Journalists, which is headquartered in Canada. GARDJA members are working on agriculture-related content for online, radio, and newspaper outlets and gaining international recognition (see Trainees and GARDJA Members Receive International Awards for Agriculture Journalism box). Rite 90.1 FM, a local radio station in the Eastern Region —and a project grantee and trainee — has established itself as an agriculture radio station. Through its daily broadcasts, it brings farmers to the center of the policies affecting their sector. Through Rite 90.1 FM, radio became a platform for farmers to share their daily challenges, promote their work, and reflect on their business practices. All these are sustainable activities that the Ghanaian media will continue on its own after project closure, which is a clear realization of the project’s exit strategy goals for a media landscape that is ready to advocate for farmers in the agriculture policymaking process.

The project has produced 270 agriculture communication materials comprising policy briefs, position papers, newspaper articles, documentaries, and other publications for policymakers and stakeholders (see Exhibit 15). The publications have contributed to increased awareness about agriculture-related matters and increased inputs into the agriculture reform process in the country.

**TRAINEES AND GARDJA MEMBERS
RECEIVE INTERNATIONAL
AWARDS FOR AGRICULTURE
JOURNALISM**

In 2016, the President of GARDJA, Richmond Frimpong, won the International Best Young Leader in Agriculture Journalism in Germany. Kizito Cudjoe won the same award at the International Federation of Agricultural Journalists congress in South Africa in 2017. At the 2018 congress in Netherlands, Opoku Gakpo a member of GARDJA, won two international awards: The International Young Agriculture Journalist and the best documentary video about the fall army worms, entitled “Rampaging Soldiers” which can be found at <http://ifaj.org/ifaj-star-prize-winner-for-audio-visual/>.

EXHIBIT 15. MEDIA METHODS USED TO REACH DIVERSE STAKEHOLDERS ACROSS GHANA



Project Strengthens Civil Society to Support Policy Efforts of Ghana Feed the Future and Other Donor Projects

To ensure project efforts were not duplicated, the Agriculture Policy Support Project continually worked to reinforce coordination with other Feed the Future projects and development partners to strengthen private sector advocacy, as illustrated below.

Feed the Future Agriculture Development and Value Chain Enhancement (ADVANCE) II, USAID. The project partnered with ADVANCE II to train 90 FBO executives from 12 districts in the Northern Region and 25 executives from five FBO networks in the Upper West Region in basic advocacy, networking, and agriculture policy documents (FASDEP II and METASIP), covering Ghana's agriculture policy process and the government of Ghana's PFJ program. Major outcomes of these collaborative efforts include:

- The identification of advocacy issues and the understanding and realization among participants of the urgent need to organize a Northern Region FBOs network to enable them to develop effective strategies for advocacy related to agriculture policy challenges that they identified during the training.
- The FBOs have established five zonal groups (i.e., Yendi, Bimbilla, Tamale, Gonja, and Walewale zones) to spearhead their developmental agenda by forming larger groups to leverage cohesion and improve their productivity through collective bargaining for inputs acquisition, collective sales, and access to financial support.
- The zonal FBO networks have elected their executives to manage and operationalize the networks and to serve as the policy and advocacy mouthpiece of the group to push through their advocacy issues and to demand actions from duty bearers.
- FBO executives have met with district assemblies and the District Departments of Food and Agriculture to introduce their networks and advocate for their representation during district assembly meetings.

- The FBO networks in the Upper West Region, along with other CSOs, successfully advocated before the Upper West Coordinating Council to ban the cutting and transportation of rosewood in the region.
- For sustainability, the FBO networks are developing their constitutions, operational guides, and short- and long-term goals, all of which will guide them in governing their operations. They will also register with the Registrar General's Department or the Department of Cooperatives to obtain recognition under the constitution of Ghana. All the FBOs in the networks have agreed to contribute financially to sustain their respective network.

USAID Northern Ghana Governance Activity. The project collaborated with the Northern Ghana Governance Activity to monitor and provide expertise for the implementation of the recommendations that emerged from the project's organized public-private policy dialogues at the district level and to share lessons learned from the processes used while working with CSOs during the project's grants program. The implementation of the recommendations is significant for district-level lawmaking, for strengthening participatory democracy and decentralization, and for promoting local socioeconomic development, particularly given that district assemblies can focus on resolving concerns that are difficult to grasp and address at the national level (see Strengthening Decentralized Policymaking box). Recommendations under implementation include:

- Establishing district assembly subcommittees on agriculture to spearhead agriculture development, which suffers due to low funding;
- Creating agriculture development and investment plans as blueprints to promote private investments in agriculture, which demonstrates the impact that project activities are having on district-level policymaking; and

STRENGTHENING DECENTRALIZED POLICYMAKING

Based on the collaboration with the project in the past two years, the Northern Ghana Governance Activity developed a position paper, "Establishment of Agriculture Sub-Committees at the Local Government Level," and submitted it to the Parliamentary Select Committee on Agriculture and Cocoa Affairs to require stand-alone agriculture subcommittees to form in districts across the country.

Northern Ghana Governance Activity's paper highlights weak local institutional capacity in planning, accountability, and reporting lines as reasons for ineffective implementation of a decentralized agriculture service delivery system.

To improve this situation, the paper recommends the establishment of stand-alone subcommittees on agriculture at the metropolitan, municipal, and district assembly levels through an Act of Parliament per section 24 of the Local Government Act of 1993 (Act 462).

The project anticipates that the subcommittee on agriculture at the district assemblies will provide a focused platform for members of the committee to comprehensively address agriculture issues. Furthermore, it will make it easier to clearly align local agricultural priorities with the strategic goals of the central government. It will also provide opportunity to increase the capacity of subcommittee members to implement preventative measures and promote agriculture issues.

- Increasing the national budget allocation for district assembly agriculture development to 10 percent of the annual budget because historically, the line item for district assembly agriculture development had been negligible.

The monitoring of the recommendations revealed:

- District Assemblies in Komenda-Edina-Eguafo-Abrem, Kpando, North Dayi, Abura-Asebu-Kwamankese, Mion, Savelugu, Yendi Municipal, and Tolon districts have established agriculture subcommittees.
- In Kpando Municipality, the agriculture subcommittee was in discussion with traditional authorities to release land to the assembly to develop community pastures and fodder banks for cattle grazing. This will reduce uncontrolled grazing that has destroyed farms and other properties in the area.
- Savelugu district developed an agriculture investment plan.
- The Sawla-Tuna-Kalba and Nadowli/Kaleo district assemblies have reached consensus with the district authorities to form the agriculture subcommittees at the next assembly meetings.
- Wa West District Assembly has agriculture subsumed under the social subcommittee of the assembly.

Feed the Future Agriculture Technology Transfer Project. The Agriculture Policy Support Project collaborated with the Agriculture Technology Transfer project to support NASTAG with developing its strategic plan. NASTAG has initiated the implementation of the plan, which includes following up on the training of seed companies in seed quality management, developing a public communique on major issues affecting the seed industry, and identifying specific policy reforms that need the urgent attention of the government, such as the implementation of the Seed Fund and the introduction of adjustments to the PFJ's seed component. Also, the Agriculture Technology Transfer project will provide support to complete the accreditation program of private seed inspectors initiated by the project.

COMPONENT 3. PROJECT LEGACY: CIVIL SOCIETY AND PRIVATE SECTOR ORGANIZATIONS READY TO ADVOCATE EFFECTIVELY FOR AN ENHANCED FOOD SECURITY ENABLING ENVIRONMENT

Establishment of Sustainable Public Private Dialogue Forums: The Case of HAG, NETRIGHT, and NASTAG

During its first two years, the project and GIZ collaborated to support the Agriculture Public-Private Dialogue Forum led by the Private Enterprises Federation. However, lack of consensus about forum objectives and funding hindered this initiative from moving forward. Instead, the project issued a tender and awarded grants to two CSOs to strengthen national and regional agriculture public-private dialogues and to mainstream women's participation in agriculture policy: HAG, an NGO with a record of organizing dialogues, and NETRIGHT, a women-based organization. Details on

the support and impacts of the project’s work with NETRIGHT and NASTAG are under the Policy Advocacy/Gender sections and under the Seed Case Study, respectively.

Agriculture Policy Dialogues at the Heart of HAG’s Advocacy Efforts

HAG’s four national dialogues focused on policy discussions that support private-sector investment and the creation of an enabling environment for agribusiness sector development.

National Roundtable Dialogue on Agriculture Investments in Ghana

The “Empowering the Private Sector for Ghana’s Transformation: Moving from Rhetoric to Action” forum was attended by representatives from the Ministries of Food and Agriculture, Trade and Industry, Finance, Lands, and Natural Resources, and by leaders from the private sector. Major outcomes included:

- Participants agreed to collaborate to address challenges hindering the enabling environment for private sector investment in agriculture, especially finance and infrastructure.
- Participants requested the inclusion of private sector organizations in the policymaking process. As a result, the Ministry of Food and Agriculture invited the Ghana Chamber of Agribusiness — an offshoot of HAG’s advocacy efforts — to participate in discussions to improve PFJ implementation. Because of the chamber’s presence at the PFJ discussions, FAO and the Japan International Cooperation Agency invited them to contribute to food security and nutrition policy development that both organizations are working on at the request of the Ghanaian government. In addition, the World Bank invited the chamber to make contributions to the bank’s “Financial Inclusion on Gender and Youth” policy.
- The Ghana Chamber of Agribusiness is currently the de facto voice of the private sector.
- The chamber’s membership has expanded to more than 2,000 members from an initial few due to agriculture sector stakeholders attending HAG’s policy dialogues.

Agriculture Sector Public-Private Ministerial Breakfast Meeting

Senior officers from the Ministry of Food and Agriculture and the Ministry of Trade and Industries, as well as representatives from private sector organizations, attended the ministerial breakfast titled, “Examining the risk factors and costs of doing business in the agriculture sector.” Expected outcomes from the event include:

- The private sector will continue enhanced influence on agriculture policy formulation to remove constraints to its investments.
- HAG will continue hosting ministerial breakfasts to share members’ concerns with government officials on the quality of public services and inform them of HAG’s initiatives.

- HAG will continue to pursue its main objective to fund the agriculture sector with adequate credit at affordable interest rates.

Stakeholders Forum on Government's Key Agriculture Initiatives

The PFJ and One District One Factory (1D1F) event “Stimulating Private Sector Interest and Participation in the New Government Agriculture Initiatives” was attended by the national coordinator of 1D1F, representatives from the Ministry of Food and Agriculture, Ministry of Trade and Industries, media organizations, agribusiness entrepreneurs, and private sector organizations such as the Federation of Associations of Ghanaian Exporters. Major takeaways from the event include:

- Participants’ awareness of PFJ and 1D1F increased, and they learned how the private sector could enhance implementation with investments.
- The Ministry of Food and Agriculture followed through on recommendations to include private sector participants on national and district PFJ implementation committees. Also, the PFJ’s fertilizer distribution committee mainly comprises private sector fertilizer distribution companies. The ministry’s recent adjustments to PFJ include seed and fertilizer distribution by agriculture input dealers rather than district-level officials.

Media Roundtable Dialogue on Agriculture Investment

“The Role of the Media in Building a Progressive Private Sector-Led Agriculture Economy in Ghana” event convened senior public officials and Ghanaian print, online, radio, and television journalists. Outcomes of the event include:

- Participants recommended that the media be involved in agriculture policy formation.
- Media reportage on agricultural issues has increased. For example, the online publication AgricInGhana (www.agricinghana.com) has published several articles on agriculture issues and HAG’s dialogues (see <http://agricinghana/tag/hunger-alliance-of-ghana/>). The *Business and Financial Times*, *Graphic Business*, and *Gold Street Business* have also published articles on private sector investment in agriculture.

HAG has prepared a sustainability plan to institutionalize the project’s grant-supported annual ministerial breakfast with policymakers to address agriculture sector issues. The plan includes liaising with networks such as NETRIGHT, the Ghana Chamber of Agribusiness, and the Peasant Farmers Association of Ghana to make this breakfast meeting an annual affair. HAG intends to raise funds to implement the annual event from Ghanaian agribusinesses such as Chemico, Yara Ghana Limited, NASTAG member enterprises, local breweries, contributions from CSOs, and development partners. HAG has called on government to institutionalize public-private dialogues under the auspices of the Ghana Chamber of Agribusiness.

The regional and national public-private dialogue platforms that project-sponsored organizations (i.e., HAG, NETRIGHT, and NASTAG) hosted and/or promoted have

strengthened the engagement between policymakers and the private sector to improve the business enabling environment and boost food security and investment in the Ghanaian agriculture sector. The project's grants enhanced the capacity of local organizations, which had no prior involvement in policy analysis or advocacy, to engage policymakers and duty bearers on general agriculture issues. Notable examples include HAG's dialogues, NETRIGHT's interventions to empower women in agriculture to have access to land, extension services, and finance, and NASTAG's advocacy for seed companies to lead the industry's growth.

SNAPSHOT

Local Assemblies Lead District Agricultural Development Transformation

Strengthening decentralization to prioritize agriculture



PHOTO: FMSL Multimedia (Rite FM)

District assembly officials, farmers, and department of agriculture discuss the agriculture department's farmer and financing challenges in Akuapem North District, Eastern Region.

"The formation of agriculture sub-committees allows focus on agriculture. The assembly's decisions are resulting in progress in the district's agricultural development."

— Bright Dansu, District Extension Officer and member of the Agriculture and Small Business Subcommittee of Abura-Asebu-Kwamankese District Assembly, Central Region

Since 1988, the Ghanaian government has implemented comprehensive decentralization as an alternative approach to manage government affairs. Policymakers and development partners expected decentralization to speed up the development of sectors such as agriculture at the district level. Unfortunately, since decentralization was initiated, agriculture has not been prioritized in the development agenda because of the lack of political, institutional, and financial support.

To bring agriculture to the fore and stimulate policy and program reforms to promote sector development, the Feed the Future Agriculture Policy Support Project organized 20 district-level public-private dialogue forums in eight regions of Ghana. The forums convened agriculture stakeholders to discuss ways to encourage private sector investment in agriculture at the district level.

One significant institutional policy reform recommended in all districts was the formation of agriculture subcommittees to offer farmers the support they need to transform agriculture in their districts. The subcommittees will become vehicles for amplifying the voices of farmers and other stakeholders at district assemblies. As a result, changes are occurring.

In the Kpando Municipal Assembly in the Volta Region, the agriculture subcommittee has enacted a bylaw to reduce uncontrolled grazing of cattle in the district, as it depletes the land of vegetation cover and leads to unproductive farmlands. Through the work of the subcommittee, local chiefs released land to establish community grazing grounds and develop fodder banks. Cecilia Gbolo, director of agriculture in the Kpando Municipality and a member of the subcommittee, says, "The agriculture subcommittee has ensured that agriculture is at the center of discussion at the assembly meetings, making agriculture an activity worth doing in the district."

For the 2016 Farmers' Day celebration, the agriculture subcommittees in seven districts from the Eastern and Volta Regions joined the planning committee for the first time. Their involvement demonstrates that district stakeholders recognize subcommittees as key decision-makers in agriculture affairs.

The Agriculture Policy Support Project and the USAID Northern Ghana Governance Activity scaled up this institutional initiative to 27 districts in the three regions of Northern Ghana, so decentralization becomes an effective approach to promote social and economic development at the district level and for agriculture sector overall.

SNAPSHOT

Building Institutional and Organizational Capacity of Non-State Actors to Improve Policy Advocacy

Building private sector capacity increases their understanding of the agriculture policy process and amplifies their voice to advocate for change.



PHOTO: Agriculture Policy Support Project

Non-state actors show off their policy advocacy training certificates. Participants are now empowered to effectively advocate for policy reforms relevant to their communities.

“My organization has not been deeply involved in policy analysis and advocacy just for the reason that none of the staff including me have got the capacity to analyze policies and advocate for the needed change. All we knew was mobilizing the masses to demonstrate against government policies and laws. The training received from the Agriculture Policy Support Project was a blessing to me and my other three staff members. Now we have the needed tools and techniques to do policy analysis, identify advocacy issues, develop advocacy action plans, write policy briefs, and confidently engage policymakers and duty bearers.”

— Kassavubu Mordzi, Executive Director, Common Action for Rural Development

The Agriculture Policy Support Project has trained more than 40 Ghanaian organizations to enhance their advocacy skills. A major challenge facing these organizations is their lack of capacity to engage with their government to push for policy changes and alternatives. In turn, it is important to empower the organizations to enhance their ability to effectively vocalize their concerns and proposals for policy reform to policymakers.

To overcome such a challenge, the project is implementing a training program to equip the organizations with the knowledge and skills to participate in Ghana’s agriculture policymaking process. The training in policy advocacy is an investment in peoples’ empowerment; that is, it provides them with the capacity to offer input on policies and programs so they respond to real needs and ensure public expenditures are relevant. The training curricula of the program has covered topics such as governance, leadership, policy analysis, technical report writing, and advocacy.

Hajia Alima Sagito-Saeed, executive director of Savannah Integrated Rural Development Aid (SIRDA), an advocate for women’s rights, and a participant in the training program, has said, “When we started our organization some years back, we had no knowledge of how policies are analyzed, formulated, implemented, and monitored. Most of our activities are based on services delivery directly to beneficiaries with no attention to policy advocacy targeted at the authorities. Because of our limited capacity to even identify the issues, we had no knowledge on how to design a plan for a successful policy advocacy campaign.” The training workshops, Hajia continued, “have started changing the organization; management has reviewed our mission statement to include advocacy, revamped the advocacy unit, started the preparation of an advocacy plan, and developed a policy brief on the situation of women farmers’ access to agriculture extensions services.”

GENDER: EMPOWERING WOMEN'S ROLE IN GHANAIAN AGRICULTURE

The Ministry of Food and Agriculture recognizes the need to increase female representation in Ghana's agriculture sector in its policy documents; it further recognizes that paying attention to the needs of women farmers leads to higher agricultural productivity and better outcomes in poverty and human development. To support these efforts, the Agriculture Policy Support Project developed a gender strategy that mainstreamed gender-sensitive policymaking activities within the project's activities as a crosscutting priority, ensuring that all work plan activities account for the needs of women and other marginalized groups. Another vital aspect of the project's gender strategy is mainstreaming gender in all capacity building support to government partners and CSOs and to ensure that women have access to productive resources for their agriculture activities, including land and agriculture extension services. The project's interventions to mainstream gender inclusion, especially of women, should be understood from the perspective that women farmers in Ghana contribute more than half of the labor force in agriculture, and constitute 95 percent and 85 percent of those involved in agro-processing and food distribution chains, respectively, as GADS II has pointed out. This section summarizes the project's gender work across all three components.

Mainstreaming Gender into Agriculture Policy

Although Ghanaian women play a critical role in the country's agriculture development, they remain poor in resources, vulnerable, and have limited access to productive inputs and extension services. Accordingly, the project provided Ministry of Food and Agriculture's Women in Agricultural Development Directorate (WIAD) with interventions to mainstream women's rights and empower women as fundamental actors within the agriculture sector.

Enhanced Capacities of the Ministry to Mainstream Gender into Programing

The project provided technical assistance to WIAD to review the Ministry of Food and Agriculture's GADS II and to develop training materials on its contents to train all ministry units to mainstream gender into sector programming. The review's objective was to adjust any new policy developments at the ministry since the approval of the GADS. GADS II provides a blueprint to mainstream gender considerations into agriculture development. The project also provided a grant to NETRIGHT to conduct a review of the GADS II and to implement a training of trainers on the content and implementation of the strategy. In this case, NETRIGHT provided training on the GADS II to ministry staff and to other gender-focused CSOs. GADS II implementation has not fully launched to showcase tangible impacts because of funding limitations at the ministry. Nevertheless, the strategy has attracted the attention of national and international institutions that focus on the needs of women in agriculture development. For example, the African Development Bank is in discussions with WIAD to adopt the strategy for the Bank's continent-wide Women in Agriculture Value Chain Project, currently under design. Ghana's Ministry of Gender, Children, and Social Protection has also considered adopting aspects of the strategy to promote rights of Ghanaian women. With this recognition, the strategy has potential to hasten the implementation process, improve lives of women and their families, and encourage inclusive growth and development in Ghana and across Africa.

Sensitization Activity to Promote Food Security and Nutrition

The Agriculture Policy Support Project funded a public education and sensitization program for 250 vulnerable women and school children to promote food security and nutrition as part of the G7 initiative to achieve food security. Because women primarily cook and feed families in Ghana, the knowledge they acquire through this activity will contribute to the improved quality of food and the health status of their families. The Ministry of Food and Agriculture has considered the lessons from the activity to implement future food security and nutrition programs.

Research to Strengthen Gender Mainstreaming into Agriculture Policy

Development of Baseline Survey on Gender

The Agriculture Policy Support Project supported WIAD to undertake a baseline survey on “Women and Agriculture in Ghana” to provide baseline statistics to help measure the impact of GADS implementation. The survey is currently the most updated statistical account in Ghana that identifies the multiple, significant roles that women play in the Ghanaian agriculture sector.

Dedicated Research to Mainstream Gender Inclusion

The project commissioned productivity comparative research studies with special attention to gender to update findings from the Ministry of Food and Agriculture’s earlier studies on gender in Ghanaian agriculture. These studies’ findings on the constraints women farmers face have been presented to ministry policymakers so they can develop appropriate policies to improve women farmers’ productivity.

Enhancing the Advocacy Capacity of CSOs to Promote Gender Inclusion into Agriculture Policy

Grants to Strengthen Gender Mainstreaming

The project used its small-grants program to build the institutional capacity of private sector apex organizations, CSOs, and media to strengthen agricultural policy advocacy for women’s FBOs. Organizations strengthened their capacities in financial management, member services, policy analysis, and outreach and advocacy related to agricultural development. The project provided grants to several women-focused CSOs such as SIRDA, RUWA, NETRIGHT, NORTHCODE, and URBANET to embark on policy advocacy training and empowerment of women farmers. Under the partnerships with grantees, the project trained rural farmers in policy advocacy, introduced them to Ghana’s agriculture policy documents such as FASDEP and METASIP, and strategized methods with them about how to demand their rights, especially for extension services from agriculture extension agents. This increased the voices of rural women farmers in the Northern and Upper East Regions.

Women in Agriculture Dialogues

In addition to training CSOs and private sector stakeholders in policy advocacy, the project used its small-grants program to support public-private dialogues focused on advocating for reforms to enhance women’s participation and investment in Ghana’s agriculture development. These dialogues have contributed to articulating the concerns of rural farmers for the attention of policymakers and duty bearers.

SIRDA and RUWA, two project grantees in the Northern Region, trained and empowered more than 3,000 women farmers in six districts in the Northern and Upper West Regions to advocate and access agriculture extension services. Similarly, the project's grantee, URBANET, sensitized and trained a 30-member women's group in Tuutingli in the Northern Region to improve their advocacy skills, which they then used to demand agriculture extension services. Prior to the forums, the women were not aware that agriculture extension agents could assist them in crop cultivation. NETRIGHT, based in Accra, received a grant to organize three regional and one national public-private dialogue forum to amplify women's calls for equal participation in the agriculture policymaking process and to discuss the contents and objectives of the Land Bill (see Project Grantee Contributes to Gender Equality and Social Inclusion box below) and of the GADS II. Through the project-supported advocacy training, women farmers have learned how to access agriculture extension services in the districts and have become confident and ready to contribute to the agriculture policymaking process.

PROJECT GRANTEE CONTRIBUTES TO GENDER EQUALITY AND SOCIAL INCLUSION

NETRIGHT's dialogue sessions drew policymakers' attention to the need to develop land and financial reforms that open opportunities for increased women's participation and investment in agriculture. The sessions also strengthened the call for development and implementation of women-sensitive agriculture projects and programs to close the gender gap.

NETRIGHT partnered with the Leadership and Advocacy for Women in Africa – Ghana to prepare a memorandum on gender equality and social inclusion provisions in the Land Bill. They were invited to present the memorandum to the Parliamentary Select Committee on Lands and Natural Resources at a public hearing in May 2018. Since then, the organization has had four separate meetings with members of the Parliamentary Committee and with representatives from the attorney general's Department and Lands Commission to review each clause of the bill. From these meetings, NETRIGHT has gauged the favorable response from members of Parliament to incorporate most of the organization's suggestions into the draft of the Land Bill.

NETRIGHT's suggestions have enriched the content of the draft bill, and if incorporated into the final legislative instrument, the law will be responsive to the following gender concerns:

- The bill does not protect spouses in marriages not properly institutionalized. These include incomplete customary law marriage, common law marriages, and marriage by association. A provision in the law should protect such spouses under such marriage arrangements.
- The Land Bill should ensure that the processes of land acquisition are strengthened and made accessible to persons with disabilities in the equitable acquisition of land, specifically the blind and persons with psychosocial disabilities.
- Apart from stating that discriminatory land practices are null and void, the provision is silent on what cultural practices are deemed discriminatory and what happens if such protections are violated. The interpretation section must contain a definition of what will be deemed as discriminatory cultural practices.

Training CSOs on Gender Statistics

As detailed under the Policy Advocacy component, the project trained 20 CSOs, including members of the media, in gender statistics to improve the CSOs' use of evidence and data in policy advocacy. CSOs learned about the importance of using evidence in advocacy; where to find reliable sources for statistics and other data; and how to organize, analyze, and use data as evidence to convince policymakers to

include the special needs of women farmers in policy decisions. As demonstrated to the project, 10 of these organizations are effectively using empirical evidence to support their gender policy advocacy activities.



PHOTO: Agriculture Policy Support Project

The project-initiated stakeholder workshop on women's access to land drew the attention of high-level officials. Here the chairman of the Parliamentary Select Committee of Lands and Forestry responds to grantee NETRIGHT's presentation on Land Bill reforms.

GENDER PROJECT LEGACY: LASTING IMPACTS ON WOMEN IN AGRICULTURE POLICY ADVOCACY

The Agriculture Policy and Support Project and its partners' technical and policy advocacy activities established important changes to strengthen gender mainstreaming in Ghanaian agriculture policy, presented below.

- The project provided capacity and institutional support to six CSOs focused on women in agriculture to improve their policy advocacy campaigns for women's access to agriculture extension services. Thanks to these efforts, district assemblies increased resources to expand agriculture extension services to women farmers. This is critical because 80 percent of women in Ghana depend on farming activities for their livelihoods.
- With improved organizational and institutional capacities, CSOs now attract funding from Feed the Future and other development partners to expand their gender-focused advocacy activities, especially in the Northern Region.
- There is now a cadre of 10 Ghanaian CSOs focusing on women in agriculture policy advocacy that use empirical evidence to guide analysis and position papers. They are implementing more effective policy advocacy campaigns and are committed to promoting women's rights in agriculture policy and securing their access to public investment programs and public services.
- The project and local partners' public-private dialogues to advocate for women in agriculture will continue after project closeout. For example, project grantees have earned important recognition to continue engaging with Parliament members and other high-ranking officials to secure approval of the Land Bill. This engagement will continue when public and private stakeholders meet to discuss and implement the bill's regulations.

WIAD and the regional and district-level departments of agriculture received training on mainstreaming gender into their respective spheres of action based on the GADS II, ensuring that women's concerns are discussed and addressed as part of an ongoing process.

SNAPSHOT

Bangsim Nyagsa Women's Group Improves Livelihoods

Creating opportunities for women to diversify their incomes and strengthen their social networks



PHOTO: Agriculture Policy Support Project

Madam Bintu Abukari shares how USAID's agriculture policy training has empowered the group to demand extension services from their district department of agriculture. This has led to an increased presence of extension agents training her group on good farming practices to boost soybean production.

"We have now become real farmers producing quality soybeans and processing soy into flour, soy milk, and soy meat for the local market in Tamale. Our community market thanks URBANET and the Agriculture Policy Support Project for the training and market linkages."

— Bintu Abukari, Bangsim Nyagsa Women's Groups, Tutingli-Northern Region

Bintu Abukari is a smallholder farmer in Tutingli, a community in the Northern Region of Ghana. She is also the secretary of Bangsim Nyagsa, "Knowledge is good," a 30-member women's group. Like the other women in her group, she used to grow only rice and maize on a small scale, mainly to supplement food in her home. The women had low yields every season due to a lack of capital and knowledge on good agronomic practices.

However, Urban Agriculture Network (URBANET) — an Agriculture Policy Support Project grantee — sensitized and trained members of Bangsim Nyagsa to improve their advocacy skills, enabling them to voice their demands for agriculture extension services. Prior to URBANET's forum, the women were not aware that agricultural extension agents could assist them in crop cultivation procedures. Upon learning from URBANET that they have a right to access agents, they contacted their district agriculture office to provide them with an agent. The agents introduced soybeans, which the women welcomed, as the crop is cheaper and more manageable to cultivate than rice and maize.

According to Ms. Abukari, "Now we are not alone, the extension officer visits us once a week. We no longer throw seeds, we now plant in lines which makes it easier to weed and work on our crops." The interaction between Bangsim Nyagsa and the agricultural extension agents has strengthened the relationship between the farmers and the department of agriculture, which now provides the farmers with seeds and inoculants. In addition to soybean cultivation, URBANET trained the women on soybean value-adding processes for bread, cake, flour, milk, and soy meat and has linked them to local markets in Tamale. Ms. Abukari and the members of the group now have extra disposable income, which they use to purchase nutritious food and pay their children's school fees.

Before URBANET, the group was not meeting regularly. Now the women meet to plan lobbying initiatives and collectively undertake soybean processing, which has strengthened the group's cohesion. Based on the group's motivation to continue working together, URBANET encouraged its members to set up a village savings and loans association to support members in need for farming or family activities. "We support each other with money from the group to pay for school fees, ploughing, and hospital bills," said Ms. Abukari.

According to Ms. Abukari, the group is not keeping the knowledge to themselves. They share information on soybean production, technology, and processing with farmers from neighboring communities such as Kpanvo and Vitim. By supporting women's farmer groups like Bangsim Nyagsa, USAID is contributing to empowering women in the Northern Region to advocate for their needs, diversify their incomes, and improve their neighbors' livelihoods by knowledge sharing.

Advocacy Training Increases Women's Access to Agriculture Extension Services in the Northern Region

Building confidence of women farmers to demand agriculture extension services



PHOTO: SIRDA

Female participants learn how, when, and from whom to access extension services.

“Since last year, we have more women visiting our offices and asking questions that were never asked before. The District Assembly has captured our need for fuel for extension this year because of the advocacy meetings and the radio discussions.”

— Abdulai Osman, Deputy Director of Agriculture, Nanumba South District

In Ghana, women contribute more than half of the agriculture labor force and produce 70 percent of the country's food stock. They constitute 95 percent and 85 percent of those involved in agro-processing and food distribution chains, respectively. Despite their importance to the agricultural sector, rural women lack access to agricultural extension services, which could improve their farm productivity and incomes and enhance food security nationwide.

The Agriculture Policy Support Project's mandate is to strengthen the agriculture policy process in Ghana. The project's policy advocacy component assists CSOs and private sector stakeholders with improving their advocacy skills, enabling them to voice their demands for policy reforms and participate effectively in the policymaking process.

Savannah Integrated Rural Development Aid (SIRDA) — an NGO based in the Northern Region — received a grant from the project to improve the advocacy capacity for increased access to agricultural extension services of more than 1,500 women farmers in three districts in the Northern Region. The women farmers were trained on how, when, and from whom to access extension services. They also were educated on Ghana's agricultural policies and investment plans to help them better understand the government of Ghana's vision to develop the agriculture sector.

SIRDA's work has created noticeable changes in the three districts. Three radio stations have donated airtime to encourage women leaders to discuss agriculture issues and advocate for change. The Nanumba North and South Districts have incorporated funding support to agriculture extension activities in their annual composite budgets, which previously was nonexistent. Women farmers in Kpandai District have started mobilizing funds to fuel the motorbikes of the agricultural extension agents operating in their zones, thereby enabling the agents to visit their farms.

Isaac Nkansah, an agent from the Nanumba North District, spoke of the grant's accomplishments: “Since I was sent to Lanja as an [agent] responsible for about 18 communities five years ago, it was only last [year] that I visited the farms of 76 women farmers to help them on how to improve their agricultural practices. This is because the women never had the courage to approach me. However, after the support from the Agriculture Policy Support Project to SIRDA, the women kept on coming in teams and the number in 2016 will increase highly, given the calls I have started receiving since last week.”

SECTION 2

PROJECT LEGACY CASE STUDY: TRANSITIONING SEED PRODUCTION TO A PRIVATE SECTOR-LED INDUSTRY TO INCREASE HIGH-QUALITY SEED SUPPLY AND ADOPTION

INTRODUCTION

The Agriculture Policy Support Project paid special attention to the seed sector, working across each project component. Seeds are a Ministry of Food and Agriculture priority and present multiple opportunities for increased private sector investment if key reforms started by the project move toward implementation. The project made significant progress in transitioning the seed sector to a private sector-led industry.

According to the Seed Producers Association of Ghana (SEEDPAG), the annual demand for certified seed is approximately 83,600 MT to cultivate more than 2 million hectares of Ghana's main annual crops – maize, rice, sorghum, cowpea, groundnut, and soybeans. However, certified seed production is grossly insufficient at approximately 4,000 MT per year, demonstrating the nascent and weak nature of Ghana's seed industry.

Furthermore, Ghana lags behind African countries in the release and uptake of new planting material. On average, most varieties currently used in Ghana were released 15 years ago. When improved varieties are released, the National Agriculture Research Institutions do not adequately promote them. Ultimately, farmers have limited or no access to improved seed varieties.

The sub-par seed uptake, estimated at under 6 percent in 2016, is the basis for most of Ghana's seed industry issues according to the project's Seed Market Industry Framework and Strategy Study (SMIFS). The study demonstrates that these issues stem from a lack of technical and financial resources to consistently carry out policies and programs over the past decades. For example, since 2010 the government had limited success in jumpstarting the industry by enacting Act 803. Additionally, the National Seed Plan as the implementation path for the National Seed Policy is highly

commendable, but was not implemented. (Ghana Feed the Future Agriculture Policy Support Project: *Seed Market Industry Framework and Strategy Study (SMIFS)*, page 88, November 2017) See the Political Environment box below for key government laws, policies, and strategies that impact Ghana’s seed industry.

POLITICAL ENVIRONMENT

Plants and Fertilizer Act 2010 (Act 803). The law regulates activities such as trade, commercialization, and agriculture input use (seeds and fertilizer).

National Seed Policy. Ghana’s national seed policy is a statement of intent by government and its partners regarding the short, medium, and long-term development and management of the seed sector.

National Seed Development Plan. The plan operationalizes the intentions expressed in the National Seed Policy. Its objective is to improve seed sector performance and increase the availability of affordable and quality seeds of superior varieties for farmers.

Planting for Food and Jobs. The government is fully committed to increasing agriculture productivity to catalyze a structural transformation in the economy through increased farm incomes and job creation. To contribute to this goal, the government initiated its flagship PFJ campaign. Its objective is to motivate adoption of certified seed and fertilizer through a private sector-led marketing framework by raising the incentives and complementary service provision on input use, good agronomic practices, and marketing outputs (e.g., grain) on an E-Agriculture platform.

The SMIFS also found that the government understands the importance of the seed industry and is willing to invest in it. This is demonstrated by availability of certified seed as a cornerstone to improve farm productivity and create substantial impacts on social and economic development as one of the pillars of Planting for Food and Jobs – the Ministry of Food and Agriculture’s flagship program. The study concluded that, “While it is considered that the PFJ seed uptake goals need to be reconsidered to avoid creating unreachable expectations, most of its underpinnings and proposals are well supported, potentially steering the project towards an effective execution. It is considered that with the proper adjustment, the PFJ may not only reach its goals regarding agricultural yield increase, but it could propel the seed industry towards maturity.” (Ghana Feed the Future Agriculture Policy Support Project: *Seed Market Industry Framework and Strategy Study (SMIFS)*, page 88, November 2017)

Exhibit 16 presents the institutional environment of key actors and projects relevant to Ghana’s seed industry.

EXHIBIT 16. INSTITUTIONAL ENVIRONMENT

ORGANIZATION	KEY ROLE IN SEED SECTOR
GOVERNMENT – MINISTRY OF FOOD AND AGRICULTURE	
Plants Protection and Regulatory Services Directorate (PPRSD)	Mandated to issue permits for the importation of soil, plant and plant products, and fertilizer.
Ghana’s Seed Inspection Division (GSID)	Key regulatory and supervisory entity in the seed industry.
Crop Services Directorate (CSD)	Mandated to, among other areas, facilitate the development and distribution of improved planting material in collaboration with research, extension services, and private sector.
National Seed Council. (NSC)	Mandated to approve and streamline many of the seed industry’s policies, regulations, and administrative procedures.
INTERNATIONAL RESEARCH INSTITUTIONS	
Iowa State University’s Seed Science Center	A center of excellence nationally and internationally in seed research, education, technology transfer, and international seed programs.
GHANAIAN RESEARCH INSTITUTIONS	
Council for Scientific and Industrial Research – Crops Research Institute (CRI)	A center of excellence for agricultural research, innovation, and capacity building for development and dissemination of demand-driven technologies for sustainable food and industrial crop productivity, including maize, groundnut, and soybeans.
University of Cape Coast in Cape Coast	Provides comprehensive, liberal, and professional programs. The project collaborated with its College of Agriculture and Natural Sciences.
University of Ghana in Accra	The premier university in Ghana; provides and promotes education, learning, and research.
PRIVATE SECTOR	
Seed Companies	Produce certified seeds, with some multiplying breeder seed into foundation seed. Most were former members of the Seed Trade Association of Ghana.
ASSOCIATIONS	
Seed Producers Association of Ghana (SEEDPAG)	Represents about 200 hundred small seed producers and is now a member of NASTAG.
Seed Trade Association of Ghana (STAG)	Formerly the main representative of Ghanaian seed companies. Its members now have joined NASTAG as individual seed enterprises.
NASTAG	NASTAG is now the sole private organization representing the interests of the seed value chain. Members include seed companies, SEEDPAG, agro-input dealers, and one research center.
CSO	
Ghanaian Civil Society Organizations	CSOs focused on agriculture development partnered with the project for community sensitization to key seed policy instruments.
USAID SUPPORT TO THE SEED SECTOR	
West Africa Fertilizer Program	The program seeks to increase food security and reduce poverty and hunger in West Africa. The program will increase the regional availability and use of appropriate and affordable fertilizers.

ORGANIZATION	KEY ROLE IN SEED SECTOR
West Africa Seed Program	The program aims to increase the production of quality-improved certified seeds in West Africa's seed supply from 12 percent to 25 percent by 2017 and it works to facilitate links among research institutions, seed producers, certifiers, and farmers.
Feed the Future Agriculture Technology Transfer Project	This project seeks to increase the availability and use of agricultural technologies to maximize and sustain productivity in Northern Ghana.
USAID and the Alliance for a Green Revolution in Africa's Scaling Seeds and Technology Partnership in Africa	This partnership increases seed supply through targeted investments in public crop breeding and private enterprises to ensure smallholder farmers have reliable access to seed.

During initial interaction with public and private seed stakeholders, key policy, legal, and technical problems limiting the growth and modernization of the Ghanaian seed industry became apparent.

Key Issues – Policy

Existing policy not implemented. Despite Act 803's language providing for private sector participation, the public sector had not empowered private sector actors in the certified seed value chain, arguing that private seed producers lacked technical preparedness. In parallel, the regulatory process remained weak.

Splintered private seed actors with weak advocacy capacity

Private seed sector stakeholders belonged to different associations for small seed producers, seed companies, other agribusiness entities, and agro-input dealers. Because of this segregation, private seed value chain actors were not strong enough on their own to engage the Ministry of Food and Agriculture to implement the enabling environment for increased private investments in the seed industry as mandated in Act 803. Additionally, there was no cohesive voice to represent and advocate for the private sector seed industry.

Improved seed varieties not promoted

Neither the public nor the private sector was promoting improved varieties. The public sector lacked financial and technical capacity to facilitate increased access to improved varieties, especially for smallholder farmers, youth, and women. Because the public sector was not releasing many improved varieties or promoting them, there was minimal incentive for the private sector to champion them.

Key Issues – Legal and Technical

Weak implementation of the Plants and Fertilizer Act 2010 (Act 803)

The effective implementation of the Plants Section of Act 803 is fundamental to provide critical guidelines for growing the seed industry. Despite Act 803's enactment in 2010, its full implementation was weak, fundamentally because of two main issues. First, public and private sector stakeholders' lack of awareness of the content and objectives of Act 803 hindered compliance with its mandate. As this law regulates activities such as trade, commercialization, and agriculture input use (seeds and fertilizer) it meant, for instance, that public and private sector stakeholders were not

fully complying with the law to ensure farmers' access to high-quality and registered inputs. Second, the functioning of an adequate legal and technical framework to promote the development of the industry was limited because main instruments of the Act were pending, such as the Seed Regulations' harmonization to ECOWAS protocols and the modernization of its technical procedures on seed variety release, certification, and accreditation.

Act 803 was open to subjective interpretation

Based on the project's review of Act 803, it was necessary to undertake a holistic revision of the technical and administrative procedures related to the seed industry. This was necessary to limit the capacity of public sector officials to "interpret" the law and regulations based on their perspectives and interests, imposing either untenable technical conditions or delaying administrative approvals.

National Seed Testing Laboratory about to lose ISTA membership

The Ministry of Food and Agriculture's National Seed Testing Laboratory was on the verge of losing its International Seed Testing Association's (ISTA) membership due to lack of funding. This would have been detrimental to certifying the laboratory's seed certification procedures under international quality standards.

National Seed Council not operational

The National Seed Council, which is the mandated body to approve and streamline many of the seed industry policies, regulations, and administrative procedures, was not meeting due to a lack of financial resources.

Underfunded research limited breeder seed

Government research organizations were underfunded, yet expected to expand the availability of breeder lines. Without developed seed licensing policies to engage with the private sector to expand the availability of early generation seeds (EGS – breeder and foundation), they were not able to generate additional sources of income.

Government did not allow private sector to produce foundation seed

Although there were no legal limitations on the private sector to produce foundation seed, the government would not allow private seed producers to enter this crucial segment of the seed value chain. Arguing the lack of specific guidelines to regulate this, the government's reluctance actually was based on its interest in keeping the Grains and Legumes Development Board's (GLDB) role as the main supplier of foundation seed. However, this entity was underfunded and incapable of supplying the necessary quantities of foundation seeds for multiplication into certified seeds by seed producers.

Seed producers not investing

Due to enabling environment uncertainties and a significant lack of promotion to expand demand, seed producers were not investing enough in high-quality certified seed production.

PROJECT APPROACH AND CORE SOLUTIONS

Project approach

To address the issues described above, the Agriculture Policy Support Project laid the foundation for a vibrant commercial seed sector to deliver high-quality seed for increased productivity, income, nutrition, and food security. This was achieved through concurrent interventions: supporting the formation of a unified seed producers' association and increasing their advocacy capacity; supporting evidence-based public-private dialogue processes to feed into policy development and reform; improving seed companies' skills in quality management and accreditation for self-seed certification; strengthening the public sector's regulatory and supervisory role, especially to make the National Seed Council operational, and; supporting Ghana's Seed Inspection Division to implement its seed certification and accreditation procedures.

Based on the policy reforms advanced by the project, the private sector is leading the growth and development of the Ghanaian seed industry under an improved regulatory and supervisory role of the public sector. In addition, accessible, affordable, appropriate, and profitable certified seed availability increased for small holder farmers, which meets the dimensions of "access to seeds" as defined by farmers. (<https://www.accesstoseeds.org/app/uploads/2016/08/Access-to-Seeds-Index-2016-online.pdf>) See also What Access to Seed Means to Farmers box.

This is due to three main project achievements: the improved enabling environment for increased private seed sector investment; the implementation of seed licensing agreements between NARIs and seed companies, and; the accreditation of seed companies and private agents to undertake seed certification, which all are contributing to increasing the availability of high-quality seeds in Ghana. Increased uptake of certified seeds by small holder farmers is a tool to transform Ghana's agriculture, increase yields and incomes, and reduce poverty.

The project's mandate was ambitious with respect to assisting public and private sector stakeholders with improving the development, commercialization, and use of improved seed. Exhibit 17 summarizes the project's approach to strengthening the Ghanaian seed industry to be private-sector driven and increase the supply of high-quality seed.

WHAT ACCESS TO SEEDS MEANS TO FARMERS

- **Availability** -- Are there sufficient seeds of suitable crops, with reasonable proximity and continuous and reliable supply?
- **Affordability** -- Farmers have the means to purchase seeds at fair prices
- **Suitability** -- Are seed varieties suitable for the needs, preferences, and local conditions of the smallholder farmers?
- **Capability** -- Do farmers have the extension services and adequate advice to make use of the seeds?
- **Profitability** -- Will farmers be profitable with the crops they are growing with the seed?
- **Autonomy** -- Do farmers have freedom of choice, not only as end-users, but also as producers of seed and sources of innovation?

EXHIBIT 17. ADVANCING SEED POLICY REFORMS FOR A STRENGTHENED GHANAIAN SEED INDUSTRY



Core solutions

Within this broad framework, the project formulated the following criteria to propose efficient and effective core solutions. All seed sector reform solutions cut across the project's three technical components: policy formation, policy research, and policy advocacy, which conveys the holistic approach of the project's seed interventions.

Solution Criteria

Collaborative opportunities. The project identified areas of work where there were collaboration opportunities with USAID and other implementing partners to leverage resources, create synergies, increase development impacts, and avoid duplication (see Exhibit 18).

EXHIBIT 18: COLLABORATIVE OPPORTUNITIES

COLLABORATING PARTNERS	CONTRIBUTION TO PROJECT INTERVENTIONS
GOVERNMENT - MINISTRY OF FOOD AND AGRICULTURE	
Plants Protection and Regulatory Services Directorate (PPRSD)	Collaborated with the project to identify and agree on the priority policy reforms; coordinated and facilitated capacity building activities and training implemented by the project.
Ghana's Seed Inspection Division (GSID)	
Crop Services Directorate (CSD)	
National Seed Council (NSC)	
RESEARCH INSTITUTIONS	
Iowa State University's Seed Science Center, Dr. Joseph E. Cortes	Provided extensive and invaluable experience in assisting the project with its seed policy reform approach as outlined above in Exhibit 17.
Council for Scientific and Industrial Research – Crops Research Institute (CRI)	Collaborated with the project to develop and implement seed licensing policies and seed licensing agreements for National Agriculture Research Institutions.
University of Cape Coast in Cape Coast	

COLLABORATING PARTNERS	CONTRIBUTION TO PROJECT INTERVENTIONS
University of Ghana in Accra	
PRIVATE SECTOR	
Seed Companies	Received training and technical assistance from the project to develop and implement quality management procedures for seed quality control and training to become accredited units to undertake field inspection and seed sampling for seed certification.
ASSOCIATIONS	
Seed Producers Association of Ghana (SEEDPAG)	Collaborated with the project to establish a unified association, which became NASTAG, to represent the interests of the Ghanaian seed value chain.
Seed Trade Association of Ghana (STAG)	
NASTAG	Partnered with the project to mobilize Ghanaian seed value chain actors behind a powerful seed policy reform advocacy campaign.
CSOs	
Ghanaian Civil Society Organizations	Partnered with the project to mount nationwide community sensitization activities on Act 803.
USAID SUPPORT TO THE SEED SECTOR	
West Africa Fertilizer Program	Collaborated with the project to implement a nationwide community sensitization campaign on Act 803.
West Africa Seed Program	Collaborated on the adjustments and harmonization of Seed Regulations to ECOWAS protocols.
Feed the Future Agriculture Technology Transfer Project	Collaborated with the project to implement the follow-up and implementation of GSID's pilot program on accreditation of private companies/individuals for seed certification.
USAID and Alliance for a Green Revolution in Africa's Scaling Seeds and Technology Partnership in Africa	Collaborated to support the review of the Seed Regulations by Parliament and implementation of the seed pillar of the Planting for Food and Jobs campaign.

Hone in on key ministry directorates. The project streamlined efforts to focus on the ministry's directorates most relevant to the seed sector. These included PPRSD, its Seed Inspection Division, and CSD. Project interventions identified their most important needs and responded to their priorities, including working on seed policy reform, capacity building, and research.

Support private seed sector organizations that want to unify. Relevant private seed sector organizations that understood the need create a unified front received project support. This especially included strengthened capacity to advocate for policy reforms to increase private sector participation along the seed value chain.

Focus on linchpin seed-related policy instruments. To be more effective and efficient, the project worked with counterparts to identify the seed-related policy instruments that would trigger the greatest results. Concentrating on these was an efficient approach to strengthen private sector participation in the seed industry through key policy reform.

Ability to create a critical mass to understand seed-related policy and legislation. For the seed sector to modernize and function appropriately, the project recognized the need to create a critical mass of stakeholders with increased understanding of, and compliance with, the sectors' most relevant policies and legislation.

Implementing core solutions

Implementation of the proposed solutions has not only addressed the key policy, legal, and technical issues mentioned above, but has started to create some long-term impacts that are reshaping the seed industry in Ghana.

Empowering Private Sector to Develop, Commercialize, and Use Improved Seed
Mount a community sensitization campaign. Besides some sensitization activities that were directly implemented by the project along with the Ministry of Food and Agriculture and other USAID programs, the project channeled part of its grant program to engage CSOs to expand educational campaigns on Ghana's foremost seed-related policy instruments with the objective of increasing awareness of the sub-sector's importance. This created a wide network of stakeholders capable of advocating for needed policy reform, improving compliance, and identifying business opportunities for the private sector. Key policy instruments included:

- Plants and Fertilizer Act 2010 (Act 803)
- National Seed Policy
- National Seed Development Plan
- Planting for Foods and Jobs initiative

Strengthen the seed variety release system. The project strengthened capacity to operationalize and implement the seed variety release system. Efforts focused on:

- Increasing awareness of the use of the procedures manual and variety evaluation;
- Improving the procedures manual to cover variety evaluation, release, and registration, and;
- Conducting workshops and training for relevant public and private stakeholders on the implementation of the procedures.

Improve quality for seed certification. The project developed a seed quality assurance system for seed certification in Ghana. Interventions included:

- Writing a procedures manual for accreditation of seed inspectors, seed samplers, institutions, and seed testing laboratories;

- Conducting an audit to determine gaps and updating the procedures manual for seed certification, and;
- Training GSID officers on procedure implementation and strengthening their regulatory capacities.

Introduce seed licensing agreements and contracts. The project introduced seed variety licensing and contracts to assist NARIs' economic viability to continue expanding the availability of breeder lines. The project focused on preparing NARIs and seed enterprises for licensing agreements through:

- Following up on progress to write and approve institutional licensing policies and adaptation of contracts for royalties, seed acquisitions, and NARIs;
- Encouraging implementation of licensing agreements and basic seed contracts between NARIs and seed enterprises/seed producers, and;
- Conducting workshops in Ghana to raise awareness of licensing agreements, their purpose, and implementation mechanisms.

Support the NSC Secretariat. The project focused on the NSC Secretariat to become fully operational and functional through:

- Training NSC members on the context of Ghana's seed policy instruments and on their roles and responsibilities as key actors for guiding and supervising the seed industry;
- Supporting logistics with equipment for NSC's office (office furniture, computer, printer), and;
- Providing technical and financial support for NSC to convene its meetings.

Seed company quality management training. Conducted a seed quality management (QM) training for seed companies to increase private sector capacity to produce and market improved quality seed to farmers. Interventions included:

- Drafting QM manuals for trained seed enterprises;
- Conducting post-QM training evaluation and coaching on QM implementation which included:
 - Inspection of QM implementation resources (facilities/equipment and personnel) of the seed company and offer of appropriate and relevant advice to the trained seed enterprises for effective development of the procedures contained in their QM manuals;

- Review on-site the QM manual developed by the seed company and ensure that corrections that emerged from the consultant’s review of their draft QM manual were fully addressed;
- Administer questionnaire on QM implementation to assess key issues/challenges in the implementation of the seed enterprises’ QM;
- Assist the beneficiary seed enterprises to finalize the QM manual;
- Assess whether the procedures of the QM manual on implementation had indeed been started; and,
- Offer the seed enterprises necessary technical advice on the QM implementation process.

Seed certification accreditation training. Conducted training for private companies and individuals interested in receiving accreditation to provide key seed certification services in line with Article 44(5) of Act 803 which states, “Individuals, third parties, laboratories or seed entities shall be allowed to inspect fields, sample and test seeds, and deal with the issuance of labels subject to the regulations made under the Act.” This activity included:

- Training to help kick-start a pilot program where PPRSD will provide accreditation for private operatives to provide seed certification services to seed producers in lieu of GSID. Fostering competition among seed sector stakeholders will contribute to the expansion of certified seed supply.
- Strengthening GSID’s regulatory and supervisory role as a key entity in the seed industry.

Private sector and CSO organizational and advocacy training. Strengthen the organizational and policy advocacy skills of the private sector and civil society organizations to champion needed policy reforms to modernize and lead the Ghanaian seed industry. This activity included:

- Supporting the establishment and functioning of NASTAG, and;
- Implementing community sensitization on Act 803 in partnership with CSOs.

Impact of Core Solutions

By implementing these core solutions, both public and private seed stakeholders are already creating impacts on the seed-related political economy in Ghana. We see this impact especially as more private actors are taking lead roles in supply of certified seeds while actively participating in policy discussions with the government to strengthen the enabling environment for increased private sector investment in the seed industry.

Empowering Private Sector to Develop, Commercialize, and Use Improved Seed

Mounting community sensitization activities on Act 803. Industry actors had limited knowledge of Act 803 at the launch of the Agriculture Policy Support Project in 2014. To address this challenge, the project collaborated with the USAID West African Fertilizer Program and the Ministry of Food and Agriculture to mount public sensitization and education programs on Act 803 for more than 2,000 farmers, agro-input dealers, extension agents, law enforcement agents, and ministry officials from across the country. These stakeholders increased their awareness of the law's contents, improved their understanding of industry players' rights and responsibilities, and deepened their knowledge of what it means to comply with the law. Accordingly, some input dealers now provide technical advice to farmer clients on use of improved inputs. The project implemented this educational program and awarded grants to CSOs to train core public officials and private sector representatives, who in turn implemented additional awareness campaigns on Act 803 thus expanding the geographical coverage of the initiative.

Support to the National Seed Council. The National Seed Council (NSC) is the regulatory body overseeing seed sector development. It was inactive at the project's launch and had no office in which to work. The project established and furnished a secretariat for the NSC, trained its members on their responsibilities to implement Act 803 and regulate the seed industry, and provided technical and logistical support for NSC's quarterly meetings. The NSC is now regulating and improving the seed industry's enabling environment due to its improved coordination, administration, and operational efficiency for Act 803 implementation. The NSC's chairman is exercising a powerful and productive role in articulating the responsibilities of the public and private sector to construct a common vision to guide Ghana's seed industry.

Supported National Seed Testing Laboratory international accreditation. The National Seed Testing Laboratory's accreditation and continued membership with the International Seed Testing Association was threatened due to nonpayment of dues for two years. The project's assistance to renew its accreditation made it possible for Ghana to retain its membership and its authority to issue International Seed Testing Association seed analysis certificates for cereals, small legumes, pulses, and other agriculture crops along the ECOWAS subregion. The retained accreditation also allows the testing laboratory to generate revenue to support GSID.

Harmonized Ghana's Seed Regulations to ECOWAS Protocol. Although Act 803 was passed in 2010, its seed regulations, which provide guidelines for implementing the law, were not passed at the project's inception because it was not harmonized with the ECOWAS protocol. The project led the process to harmonize the seed regulations with ECOWAS in collaboration with the West Africa Seeds Program and the West and Central African Council for African Research. The harmonized regulations were laid before Parliament in Fiscal Year 4 and are now being considered by the Select Committee on Legal Affairs. When approved and implemented, the regulations will:

- Help Ghana meet its international obligations and promote fair regional seed trade across the ECOWAS subregion;
- Provide business opportunities for Ghana's private sector seed producers across the subregion;

- Expand access to superior seeds at competitive prices;
- Encourage seed uptake among farmers to increase farmer crop yields and enhance overall agriculture production;
- Increase incomes of seed producers and farmers;
- Attract expanded private sector investment in agriculture; and
- Improve nutritional status and quality of life for rural populations.

Reviewed Ministry of Food and Agriculture technical manuals and guidelines. When Act 803 passed, its provisions expanded private sector participation in the seed sector. However, the ministry's seed-related technical manuals and guidelines required revision to align with Act 803 so the ministry could be more effective and efficient in its regulatory functions. The project provided technical assistance to the ministry to revise the Technical and Varietal Release and Seed Certification and Accreditation manuals. The project also trained the Technical Variety Release Committee and GSID on the manuals' use and implementation and provided technical and logistical assistance to develop the Guidelines for Private Sector Production of Foundation Seed. The NSC passed these guidelines in Fiscal Year 4 and directed GSID to implement them, opening the space for private sector participation in foundation seed production, which previously was a public sector activity. The guidelines also will increase foundation seed production and ultimately increase production and use of certified seeds.

Built capacity of breeders to ignite commercialization of their research. Although current public policies enjoin NARIs to commercialize their research findings and raise funds to support their work, NARIs lack this expertise. The project built the capacity of 77 NARI breeders in procedures for variety evaluation and release. The project also developed licensing policies and seed commercialization agreements for NARIs to engage with private seed producers interested in multiplying breeder seed into foundation seed. Following the training, the Crops Research Institute of the Council for Scientific and Industrial Research has entered into licensing agreements with two private seed producers to multiply agreed-upon maize breeder seed into foundation material for seed companies. This relationship provides business opportunities for NARIs to grow and increase their influence in the sector and create an efficient seed industry that benefits seed value chain actors. It also helps NARIs contribute to strengthening the downstream growth of the seed value chain by adopting business principles for their breeder and foundation seed programs (Early Generations Seeds), raising revenue to sustain research activities, and ensuring long-term, reliable production of early generation seeds.

Project initiates process to pilot private participation in seed certification. The project piloted an accreditation program through which accredited private sector agents will undertake key tasks for seed certification, including field inspections and seed sampling. The project trained 32 GSID staff on their role to accredit, supervise,

and regulate seed certification by private seed inspectors and trained 25 staff from 12 seed companies and eight retired GSID seed inspectors on seed certification. The project collaborated with the Agriculture Technology Transfer project, which will follow up on the rollout of the pilot accreditation and supply certification kits for GSID and the 33 trainees to complete the field practical training. GSID will then accredit the trained private seed inspectors to commence work during the “lean” season (or “off-season”) in southern Ghana in August 2018. Private sector participation in seed inspection and certification is a new and major policy reform in the country’s seed industry because it was previously solely a public-sector activity. Private seed inspectors, driven by competition and profit, will respond faster to seed producers’ requests to decrease delays, enhance service delivery in real time, introduce efficiency into the seed certification process, and promote increased production and use of improved certified seeds. It will also bring new business opportunities for private players in the seed industry and attract increased investment in seed production. Implementing GSID’s accreditation program will contribute to diminishing - and eventually eliminating -existing bottlenecks in the seed certification process. It will also expand the supply of certified seed, and create an enabling environment for competition and enhanced investment in the Ghanaian seed industry.

Training and coaching of private seed producers on quality management. To help introduce efficiency into private seed producers’ operations and encourage the production of high-quality seeds, the project trained 21 seed companies as well as NASTAG and Crop Research Institute staff in seed quality process management in Fiscal Year 4. The project conducted a post-quality management training evaluation and mentoring to monitor operationalization of the training. The training has delivered tremendous impacts. First, seed producers now advertise their products and services through radio and field demonstrations and have improved customer care. Second, seed companies now have staff training programs, which help to develop their human capital. Finally, three of the seed companies have moved to hybrid seed production because of this training. The coaching visits benefited the trained enterprises as they demonstrated increased knowledge and efforts to ensure that their process management was in line with their established quality standards. These changes are helping to commercialize and modernize the seed industry, improve seed productivity and production, promote customer satisfaction and loyalty, and help reach more clients to adopt certified seed and expand improved seed uptake.



PHOTO: Agriculture Policy Support Project

Staff of Agri-Services and Commercial Seeds Ltd. in Wenchi in the Brong-Ahafo Region assess the quality of their certified seed with a consultant from Iowa State University.

Supporting Research to Guide Seed Policy Reform

A seed sector growth strategy for Ghana. Although the seed industry is recognized as the bedrock for Ghana’s agricultural development and growth, knowledge of the industry’s size is limited and does not allow for a well-articulated development strategy. Therefore, the project undertook a Seed Marketing Industry Framework and Strategy study (SMIFS) to develop a medium-term seed sector growth strategy for Ghana. This study was submitted to USAID and shared among public and private seed stakeholders to guide future programs and assist the Ghanaian government in developing and strengthening the seed industry. SMIFS emphasizes the role the private sector must play in expanding and establishing a sustainable and prosperous seed industry in Ghana. Adoption and implementation of the SMIFS recommendations will help to fast track the country’s seed development effort and increase seed uptake.

Assessment of local capacities to undertake key tests for seed variety release. The project, through the Crop Research Institute, assessed seven NARIs on their ability to conduct the Distinctiveness, Uniformity, and Stability (DUS) test and the Value for Cultivation and Use (VCU) test. The DCU test ensures that a given variety is distinct from other varieties and can maintain such uniqueness while the VCU test examines the productivity, biological and chemical characteristics, and commercial value of the new variety. Results from the assessment indicated that the country’s NARIs possessed the basic infrastructure necessary to conduct DUS and VCU tests and that the seed varietal release and registration system in Ghana is transparent and functional. These findings are important for the growth and development of the seed industry as they indicate NARIs’ potential to play a vibrant role in the seed sector.

Championing Seed Policy Reforms for a Stronger Seed Industry in Ghana: The Creation of NASTAG to Represent Seed Value Chain Actors

Before the start of the Agriculture Policy Support Project, the Ghanaian seed sector lacked a strong and articulated private seed trade organization with the capacity to champion seed sector reforms for the promotion of a healthy and prosperous seed sector. Until recently, seed sector organizations in Ghana were fragmented, offered

few services to their members, and their advocacy initiatives for reforming seed policy that could modernize Ghana's seed industry were barely noticed. According to the project research on the status of Ghana's seed industry, less than six percent of the area planted with major cereals and legumes are planted with certified seeds, highlighting the need for an organization to champion and lead improved seed uptake.

To fill this gap, the project prioritized unifying splinter groups in the sector comprising the Seed Producers Association of Ghana, Seed Traders Association of Ghana, CropLife, and the Ghana Agriculture Inputs Dealers Association. By coming together and forming NASTAG, these organizations created a unified structure to improve their policy advocacy efforts. The establishment of NASTAG is a fundamental step toward modernizing the seed industry and promoting increased private sector participation and investments along the seed value chain. The project awarded a grant to NASTAG to implement "Promoting Policy Regulatory Reforms for the Development of the Ghana Seed Industry: Strengthening the Role and Activities of NASTAG." The grant's main objective was to strengthen its institutional and advocacy capacities to engage public stakeholders on policy reforms and program implementation to modernize the Ghanaian seed industry. To facilitate NASTAG's rapid development, the project embedded its policy advocacy specialist into the organization's Secretariat to provide direction and advice. Additionally, the project trained NASTAG's Executive Council and secretariat members in policy advocacy and strategic planning.

The project trained NASTAG in strategic planning, resulting in an initial three-year strategic plan. In 2018, the Feed the Future Agriculture Technology Transfer project provided financial and technical assistance to expand NASTAG's strategic plan to five years. NASTAG has been implementing the plan, which has strengthened the association's position as the voice of Ghana's seed sector while providing services and promoting the business of its members.

NASTAG put the project's policy advocacy training into action and has positioned itself as a viable seed sector organization. NASTAG undertook several policy advocacy interventions on seed policy implementation, plans, and seed sector legislation, presented below.

Awareness creation for seed-related legislation, policies, plans, and administrative procedures. NASTAG organized five outreach activities to sensitize seed stakeholders from the northern, middle, and southern areas of the country on Ghana's Seed Policy, Act 803 (Seed Part) and the National Seed Plan. It also promoted the Ghanaian government's flagship PFJ program. Participants at the forums included representatives from the regional departments of agriculture, GSID, development partners, seed producers, farmers, and researchers. Major outcomes of these activities include:

- Prior to NASTAG's presentations, participants completed an evaluation of their knowledge about the seed-related legislation and programs, which revealed that 50 percent never heard of these or understood their implications.

- Participants' awareness of seed policies and plans increased, enhancing compliance, and informing them of investment opportunities while providing a clearer understanding of the private sector's role in policy and plan implementation.
- Participants also provided input into priority activities on which NASTAG and the government should focus to create the enabling environment for increased private sector participation in the industry.

Institutional architecture for improving seed policymaking. NASTAG has advocated for the reconstitution of the NSC. Because of these efforts, the Ministry of Food and Agriculture increased the participation of private sector representatives at the council from one to two members, strengthening the role and participation of seed companies and seed producers in Ghana's foremost seed regulatory body. NASTAG continues advocating for implementation of the Seed Fund as enshrined in Act 803, 2010.

Improving policy and/or program implementation to allow the private sector to produce, commercialize, and use improved seeds. Major activities include:

- Collaboration with the Peasant Farmers Association of Ghana to push for parliamentary approval of the harmonized Ghana Seed Regulations has renewed the ministry's interest to get approval before the end of 2018.
- Permanent advocacy for several policy instruments to strengthen the private sector's presence, including 1) deepening and consolidating seed companies' participation in early generation seed production through licensing agreements with NARIs to produce foundation seeds; 2) implementing approved guidelines for private sector production of foundation seeds, which has resulted in NASTAG members submitting applications for licensing agreements with NARIs; 3) monitoring and supporting the accreditation program to strengthen private sector participation in seed certification; and 4) advocating for the establishment of public-private partnerships in seed infrastructure management.
- In 2017 and 2018, NASTAG won contracts from the Ministry of Food and Agriculture to supply improved seeds as part of PFJ's Seed Component. NASTAG supplied 640 metric tons of open-pollinated varieties (OPV) of quality maize seed to farmers in the 2017 major planting season, and for the 2018 season, it provided 400 metric tons of OPV maize and 400 metric tons of rice seed.
- NASTAG's participation in PFJ resulted in increased collaboration with the public sector. It also resulted in fulfilling a key objective of its five-year plan to broadening market opportunities for members to increase the supply of locally produced certified seeds based on the increasing seed demands from PFJ and other government agriculture programs.

Strengthening public-private dialogue on seed sector development. NASTAG's public-private dialogues meetings on seed regulations with the ministry's Plant Protection and Regulation Services Directorate, NSC, the Parliamentary Select Committee on Food and Agriculture, and the organization of the first-ever National Seed Value Chain Business Networking Forum in Ghana have heightened the exposure and recognition of NASTAG as the lead seed sector advocacy organization in the country. Major outcomes include:

- The National Seed Value Chain Business Networking Forum, attended by more than 100 stakeholders, provided the platform for participants to network, discuss issues affecting seed sector development, and enrich the public and private sector dialogue about building a competitive seed industry in Ghana. NASTAG presented a communique based on the forum's key issues and recommendations to Minister of Food and Agriculture Dr. Owusu Afriyie Akoto, who agreed with most of the document's key points.
- NASTAG now hosts the Northern Ghana Seed Platform, inheriting it from the Feed the Future Agriculture Technology Transfer project. The platform convenes suppliers and farmers, while continuing to promote public-private dialogue on seed-related issues and strengthen the enabling environment for increased private sector investment and enhanced food security.
- Dialogues have improved seed stakeholders' compliance with the law and enabled seed companies and individual producers to harness their potential to produce high-quality seed to meet increasing demand under PFJ and other government programs.



PHOTO: Agriculture Policy Support Project

A researcher speaks about the potential effects of the fall army worm and the outlook for the 2018 cropping season at the NASTAG-hosted pre-planting event in March 2018.

The ministry and development partners now recognize NASTAG's advocacy activities and its role as the legitimate voice of the private seed sector. The ministry partnered with NASTAG to contribute its expertise in the development of key agriculture programs such as the African Development Bank's African Savannah Initiative, the new National Agriculture Investment Plan, and implementation of the government's flagship program PFJ. NASTAG's advocacy activities have increased public awareness of the importance of high-quality seed for Ghana's agriculture

development while contributing to increased private sector participation in the local seed industry.

In addition to creating and supporting NASTAG as indicated above, the project provided grants to other Ghanaian CSOs to build their operational and advocacy capacities while undertaking district-based public education activities on the Plants and Fertilizer's Act 803. These educational activities have improved the ability of farmers, agro-input dealers, and agriculture extension agents to identify and demand authentic inputs, including seeds. They have also fostered broad-based collaboration with seed value chain stakeholders such as CSOs, farmers, agro-input dealers, extension agents, ministry officials, and security agents who are vital in the dissemination of agricultural policy at the community level to ensure full compliance and implementation of the law. The details of these grants are presented under the Advocacy section of this report.

RECOMMENDATIONS AND LESSONS LEARNED

This section provides recommendations and lessons learned for USAID on next steps. These ideas were developed in collaboration with USAID and key public and private seed sector stakeholders, as they will be responsible for carrying this work forward to:

- Maintain momentum of reforms advanced by the project;
- Scale up project-initiated pilot initiatives including private accreditation of seed enterprises to conduct seed certification implementation of quality management procedures for high quality seed production, and expansion of seed licensing agreements; and
- Solidify public and private sectors roles in developing quality, certified seed production and uptake in Ghana.

Institutional Support to Public Sector

Capacity building support to GSID to strengthen its regulatory and supervisory role to guide the seed industry and ensure quality control. The role of GSID is key to ensuring good quality seed production that can trigger the agriculture transformation needed, but the institution has weaknesses that must be addressed. USAID should consider undertaking a needs assessment and accordingly support GSID within reasonable limits.

Support for ISTA membership and certification of government seed laboratories. PPRSD, as the main directorate for the National Seed Testing Laboratory (NSTL), will need interim financial support to retain NSTL's membership and authority to issue ISTA seed analysis certificates for cereals, small legumes, pulses, and other agriculture crops. PPRSD generates income from this analysis but pays it into the National Treasury. The NSC must make a case to the minister to seek parliamentary approval to keep part of the income to meet NSTL's membership dues with ISTA. Such exemptions are permissible under the law.

Support to NSC to continue meeting until the Seed Fund is implemented. USAID should consider providing temporary support to the NSC to continue meetings for the council to take necessary decisions to improve the seed sector investment environment until the Seed Fund can be implemented. Technical support also will be needed to design the workings of the Seed Fund.

Legal and Technical Seed Framework

Passage of Seed Regulations. The NCS must liaise with the minister of food and agriculture to advocate for the Seed Regulations' parliamentary approval and subsequent implementation. It is about three years since the project and the Ministry of Food and Agriculture completed the technical work harmonizing the Seed Regulations to ECOWAS protocols.

Revision of Act 803. As Act 803 is now eight years old as of 2018, it should be revised and fast-tracked to address new developments and challenges to improve the seed investment environment. USAID should consider this review as part of its future support to the Ghanaian seed sector.

Educational Campaign on Key Seed Policy Documents Through Engagement with Proven CSOs and FBOs

Act 803 and National Seed Policy. Partnerships similar to those established by the project with CSOs and NASTAG should continue to expand public education of the seed law, the National Seed Policy, and National Seed Plan to increase knowledge, encourage compliance, and enhance implementation. These activities should be scaled up to more districts in Ghana and include more stakeholders. Sensitization activities should be expanded to become agriculture extension-type events to discuss production, seed quality, certification, labeling, and marketing. These educational activities are investments to expand certified seed demand.

Revise National Seed Policy and Plan. Revisions should be undertaken for the National Seed Policy and Plan to take into account the latest institutional developments and effective practical experience in improving the seed industry throughout Africa.

PFJ's Seed Pillar. Future interventions to support seed development should include cooperation with the ministry to build on the lessons learned from implementing the PFJ's Seed Pillar. This is important because the success of the PFJ hinges on the availability of the right types of seeds and their use.

Expand Market for Certified Seeds Starting with Ensuring Steady EGS supply

Operationalization of seed licensing and commercialization agreements between NARIs and seed companies. USAID should support the operationalization of the project-initiated effort for licensing and commercialization agreements between NARIs and the private sector to produce breeder seed for multiplication into foundation seed. This is an important policy reform introduced by Act 803 to create competition and expand improved seed production and uptake.

Identification of demand-driven, appropriate seed varieties. USAID interventions should assist seed value chain actors to identify seed varieties that effectively respond to the diverse needs of agricultural producers and to the demands of the market in terms of the nutritional and industrial characteristics of the final agriculture commodities. The project recognizes the efforts made in recent years by research entities, but these are still insufficient. For example, Ghana's agricultural production, especially maize, is based on one or very few varieties released more than two decades ago. NASTAG should lead this collective undertaking to identify seed varieties that meet market demand and positively transform farmers' productivity.

Joint educational program to promote seed uptake by smallholder farmers. As a key element to the seed industry's growth, USAID should support NASTAG and stakeholders, including researchers and the public sector, to promote certified seed uptake, especially among smallholder farmers, to increase production, productivity, and seed demand. Farmers generally do not have enough information on the positive impacts of certified seeds, and have an inherent distrust of seed in the market based on prior low yields, to justify their costs. Therefore, NASTAG and all seed value chain actors should conduct a massive campaign on the benefits of using high-quality planting material to motivate farmers to use certified seeds. By working together to generate and promote high-quality, accessible, certified seed adoption by small-holder farmers, the breeders, seed companies, and agro-input dealers will also prosper as certified seed demand increases.

Accreditation program for the private sector to conduct seed certification, beginning with field inspections and then seed sampling and seed testing. The project and ATT jointly worked with PPRSD to pilot a new process for private sector participation in seed certification. This will take pressure off GSID, whose limited resources renders their seed certification process inefficient. It will also create efficiencies through private sector actors who have the business interest and capacity to respond promptly to seed certification requests and to increase seed production, adoption, and use of certified seeds. USAID should assist expansion of the pilot into an official national and GSID program. Seed producers' willingness to pay for private certification services is a strong indication of its sustainability.

Partnership with NASTAG

Support to NASTAG to implement its strategic plan. As of September 2018, NASTAG has nearly finalized its strategic plan that provides the blueprint for its growth and development. USAID should provide targeted assistance to NASTAG to implement its strategic plan with special emphasis on activities that generate revenue for its financial sustainability.

Promotion and support for a Ministry of Food and Agriculture – NASTAG PPP to manage GLDB's facilities to ensure the steady supply of foundation seeds on selected crops. Currently, the role of GLDB is quite limited in the seed industry but it has a number of seed processing and storage facilities across the country that must not deteriorate. USAID should support this PPP and work with the NSC to facilitate partnership arrangements between the ministry and NASTAG to manage the facilities to promote seed production.

Processing, handling, and distribution of certified seeds. USAID should assist NASTAG and stakeholders to improve seed processing and handling. Private businesses can efficiently manage these operations, especially when GSID accreditation for seed certification to private sector operators is underway. Additionally, PPPs are a promising option where government infrastructure for seed processing and storage are involved, as these activities require the active participation of the private sector for more efficient and effective functioning. Seed value chain actors must also develop infrastructure for local-level seed distribution. One option is to develop community-based input shops to sell seeds, fertilizers, and other inputs. These could be private businesses or PPPs established between private enterprises and public or international development programs.

Timeframe to Achieve the Seed Industry's Long-Term Sustainability

Short-term issues. A five- to seven-year period of predictable, transparent, and permanent policies is needed. Therefore, it is important that the public and private sectors agree on a common vision, which will need to immediately address the most urgent short-term priorities to solidify policy foundation. These include passing the Seed Regulations, developing Seed Fund instruments and its implementation, ensuring periodic National Seed Council meetings to guide the industry, and solidifying PFJ's continued appropriate support to certified seed supply and demand.

Medium- and Long-term issues. In parallel, medium to long-term issues need public and private seed sector stakeholders' significant attention now to ensure the right steps are in place for the future of their industry. These include, for example, ensuring the needed resources for continuous effective seed technology research; strengthening the public sector in its role as a seed industry regulator and seed quality guarantor; developing a private sector-led, demand-driven market structure (e.g., number of seed companies in the industry, small seed producers becoming out growers, etc.); strengthening business linkages among seed value chain actors; managing seed competitiveness vis-a-vis foreign competition, and; ensuring feasibility for seed export to regional and continental markets.

Adoption of SMIFS' recommendations. As a blueprint that summarizes most of this Case Study's recommendations, USAID should use the project's SMIFS to inform the implementation of future interventions to develop the local seed industry. The project disseminated the SMIFS among relevant public and seed stakeholders – who are aware of, and in agreement with, its recommendations.

Strengthening Ghana's Seed Industry Through Quality Management Practices

Guiding seed producers to adopt effective quality management practices for increased certified seed production



PHOTO: Agriculture Policy Support Project

Mr. Zakaria Sumanu, managing director of Heritage Seeds in Tamale, shows his bumper maize seed harvest thanks to USAID quality seed management training. His actions to establish a seed laboratory and employ proper staff to ensure high-quality seed production are resulting in a continuous supply of certified seed to farmers.

“The training opened the weak points of the company that we didn’t deem to be important. We have since employed a laboratory assistant and a quality assurance officer to manage quality control procedures.”

— Zakaria Iddrisu, Managing Director of Heritage Seeds Company Ltd.

Quality seeds are essential for agriculture development, as quality seeds have the potential to greatly improve agricultural yields. Thus, it is imperative that the seed industry achieves production quality, maintains processing and handling quality, establishes replicable ways to measure quality, and enforces these procedures throughout the seed production process. However, as Ghana’s seed industry is still in the early stages of development, not many seed enterprises have the knowledge and training to implement rigorous quality control practices.

To improve this situation, the Feed the Future Ghana Agriculture Policy Support Project trained 20 seed companies across the country and representatives of the National Seed Trade Association of Ghana (NASTAG) and the Crops Research Institute (CRI) in seed quality management procedures. The training emphasized business management, human resource management, and quality control. To solidify the training, the Agriculture Policy Support Project conducted post-training coaching visits to assist the seed enterprises to develop and implement their seed production quality management manuals. The manuals document the required operational and administrative procedures in strict adherence to quality checks and controls comparable to international seed industry standards.

Heritage Seeds, a seed company in the Northern Region, now has signed contracts with its out-growers based on its quality management manual, ensuring that the company’s seed production quality standards are adhered to by the out-grower. In prior out-grower contracts, the absence of clear quality guidelines adversely affected the relationship between seed companies and out-growers because the final seed price based on quality would always be a contentious issue.

Farmers’ needs, as the end-users of certified seeds, are also considered. Heritage Seeds is organizing more demonstration farms – to ensure that farmers can optimize the seeds’ yield potential – and instituting farmer outreach programs to receive their feedback. Heritage Seeds has intensified its training on improved seed production practices and is conducting more field inspections without-growers. By so doing, the company is operating with a holistic view that incorporates product quality and market demands.

Complying with Heritage Seeds’ quality control procedures has resulted in soybean seed out-growers’ increased seed yield per acre by 200 percent, from three to nine bags. Using quality management practices has allowed Heritage Seeds to expand from 100 to 450 out-growers and it is considering expanding operations to the Upper East and Upper West Regions. Heritage Seeds has increased seed production by 65.3 percent since participating in the Agriculture Policy Support Project’s quality management training and coaching.

SNAPSHOT

Agriculture Policy Support Project Champions the Use of High-Quality Seeds to Promote Ghana's Agricultural Transformation

Ghanaian seed producers are taking up the challenge to deliver competitive and high-quality seed to farmers

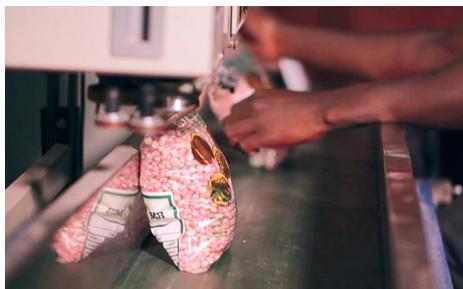


PHOTO: Agriculture Policy Support Project

Workers package maize seeds by M&B Seeds Ltd., a beneficiary of the project's quality management training.

"Previously [we] complained about the lack of market for seeds, but with NASTAG's formation we can approach the government to supply seed under the PFJ. This will further promote NASTAG members' business operations."

— Godwin Agbedanu, Benzene Farms Ltd

Ghana's continued agricultural growth will require a vibrant commercial seed sector able to deliver high-quality seeds to farmers. Currently, Ghana lacks strong private seed trade organizations needed to promote a healthy and prospering seed sector. Until recently, Ghana's seed sector organizations were fragmented and ineffective, offered few services to their members and had scant capacity to advocate for reforms to modernize the industry. Only six percent of all seeds used by Ghanaian farmers are improved-quality, highlighting the need for an organization to champion and lead development of the country's seed industry.

To ensure the availability and use of improved seeds among farmers — contributing to higher yields, better incomes, and enhanced livelihoods — the USAID-funded Ghana Feed the Future Agriculture Policy Support Project facilitated the amalgamation of the splinter seed associations in Ghana into a national umbrella seed organization called the National Seed Trade Association of Ghana (NASTAG). The project has trained NASTAG's board members and executive secretariat in policy advocacy and strategic planning, strengthening the organization's capacity to serve as the voice of Ghana's seed sector. Through a project grant awarded to NASTAG, the association is implementing a medium-term strategic plan focused on influencing policy and expanding the production, supply, and use of certified seeds by farmers.

With the project's support, NASTAG has achieved a number of successes. For instance, it has conducted sensitization sessions for public and private stakeholders on Ghana's national seed policy. This has increased farmers' awareness of the importance of using certified seeds, including new seed varieties, and highlighted its implications for agricultural productivity and food security. Recently, NASTAG partnered with Ghana's Ministry of Food and Agriculture to supply 1200 metric tons of open pollinated varieties of certified maize seeds to farmers in Ghana's southern zone to support implementation of the Ghanaian government's flagship Planting for Food and Jobs (PFJ) program.

Thomas Havor of Yonifah Seeds Ltd., a NASTAG executive member, said, "NASTAG has been able to link all value chain actors in the seed industry for easy and better collaboration between the public and private sectors, towards rapid development of the sector in Ghana, the subregion, and Africa." With these activities, and project support, NASTAG established itself as a major seed industry organization that is promoting public-private dialogue on seeds and championing the supply of quality certified seed in Ghana.

SNAPSHOT

Building the Capacity of Agriculture Research Institutions to Improve Food Security

Increasing the supply of improved seeds is essential to ramping up agricultural productivity in Ghana



PHOTO: Crop Research Institute

A scientist from the Crop Research Institute manipulates tissue culture to develop a new crop variety.

“The inclusion of universities and research institutions will improve the quality and credibility of DUS and VCU test results. Smallholder farmers will be assured of receiving high quality improved crop varieties.”

— Gloria Boakye Adu, Research Scientist, Council for Scientific and Industrial Research - Savanna Agricultural Research Institute

Agriculture research institutions can play a powerful role in increasing agricultural productivity, raising farmer incomes, and improving food security in Ghana. With improved seeds, farmers have the potential to significantly increase yields. However, before improved seeds reach farmers, new seed varieties must go through a varietal registration process that hinges on the capacity of local institutions to conduct strict quality tests. This includes the distinctiveness, uniformity and stability (DUS) test, which ensures that a given variety is distinct from other varieties and can maintain such uniqueness. The other test is the value for cultivation and use (VCU) test, which examines the productivity, biological and chemical characteristics, and commercial value of the new variety as it grows under different agro-climatic conditions.

With support from Feed the Future Ghana Agriculture Policy Support Project, the Ministry of Food and Agriculture created standards that only allow accredited institutions in Ghana to undertake these tests, establishing a greater level of transparency. However, the ministry needed a firmer understanding of whether accredited institutions possess the technical expertise, equipment, and infrastructure to perform the tests. The Agriculture Policy Support Project, through its grantee, the Crop Research Institute, assessed the institutions' readiness.

In assessing seven Ghanaian national agriculture research institutions, the institute found that they possessed the technical expertise and basic infrastructure to conduct DUS and VCU tests — including experimental fields, irrigation facilities, offices, seed processing sheds, screening houses, and storage barns. The assessment furthermore confirmed that the seed varietal release and registration system in Ghana is transparent and functional, and plant breeding activities are vibrant for all food security crops.

These findings supported the potential for national agriculture research institutions to play a vibrant role in the seed sector. However, not all institutions are equipped with seed testing laboratories. If the research institutions are to spearhead the drive for rapid growth of Ghana's seed industry, they will need improved facilities. The project is leading efforts to develop more business-oriented approaches to help institutions generate income for upgrading their lab facilities.

To enable these business-oriented approaches, the Agriculture Policy Support Project assisted institutions to establish licensing agreements with local seed companies to multiply breeder seed into foundation seed. These types of sustainable relationships represent opportunities for agriculture research institutions to grow and increase their influence in the sector, with the ultimate goal of creating an efficient seed industry that benefits seed value chain actors and strengthens food security in Ghana.

Forging Partnerships Along the Seed Value Chain for a Dynamic Seed Industry

Seed value chain actors collaborate to create a sustainable path for seed sector growth



PHOTO: Agriculture Policy Support Project

Participants at the launch of the first business networking meeting.

“From the forum, I realized the need to firm up licensing agreement implementation between research institutions and private seed companies because the royalties’ payments will support researchers to develop more improved crop varieties to serve our farmers’ needs.”

— Solomon Gyan, Deputy Director, Crop Services Directorate, Ministry of Food and Agriculture

Ghanaian seed producers currently contribute only 6,000 metric tons of maize, rice, and soybean seeds to the local market annually. But farmers’ demand for certified seeds is much higher. To compensate, the country imports seeds.

To help local producers get ahead, the Feed the Future Ghana Agriculture Policy Support Project supported the formation of the National Seed Trade Association of Ghana (NASTAG). The association rapidly became a strong advocate for modernizing the seed industry by increasing private sector involvement. On May 23 and 24, 2018, NASTAG held the first-ever National Seed Value Chain Business Networking Forum, “Vibrant Local Seed Industry: Strengthened Seed Value Chain Linkages Through Public-Private Dialogue.” The forum built stronger networks, enhancing participants’ knowledge of seed sector policy and regulatory and investment issues. More than 100 researchers, seed companies, farmers, CSOs, public sector representatives, and development partners participated.

At the event, NASTAG built consensus on issues confronting the seed industry and raised awareness of business opportunities. It highlighted how the industry can use the Ghanaian government’s high-profile Planting for Food and Jobs program to develop the local seed industry. From the perspective of Josiah Wobil, Chairman of the National Seed Council — the highest public advisory body for seed sector development in the country — the forum “served as an excellent platform to learn and continue deliberating on key seed sector reform issues and to promote business networking.”

Kwabena Adu Gyamfi of Agri-Commercial Services Ltd., a NASTAG member, noted that “because of the forum I am currently in talks and undergoing trial tests to supply certified maize seeds to Seed Co.,” a Zimbabwean certified seed company. In addition, NASTAG member Innocent Atsutse of Blessed Farms Ltd., said, “Through the business networking meeting I have signed a contract to supply certified rice seeds to RMG Ltd.,” an international input supplier operating in Ghana.

This event branded NASTAG as the voice the seed industry and increased its standing among seed value chain actors, suppliers of services and inputs, and the business community. Given the enthusiasm from forum participants, NASTAG is now working to institutionalize an annual forum with private sector support.

SECTION 3

LESSONS LEARNED AND RECOMMENDATIONS

Agriculture continues to be fundamental to Ghana’s economy, and a successful agriculture sector is essential to driving inclusive economic growth and lifting the most vulnerable out of poverty. As demonstrated by the activities and results described throughout this report, the Agriculture Policy Support Project accomplished its objectives. Nonetheless, there are additional opportunities to build capacity and to foster the development and implementation of evidence-based policies and programs that support effective, efficient functioning of production systems and agricultural markets. To inform future efforts to achieve these objectives, below are lessons and recommendations from the Feed the Future Ghana Agriculture Policy Support Project for USAID’s consideration.

LESSONS LEARNED FROM AND RECOMMENDATIONS ON PROJECT DESIGN

Throughout project implementation, the Agriculture Policy Support Project team felt that its contractual mandates were not always aligned with the Ministry of Food and Agriculture’s priorities. This was particularly challenging when trying to improve policymaking or build capacity to improve staff skills for rigorous policy analysis, research, or policy monitoring by designated stakeholders. Given that a fundamental tenet of the U.S. government’s Global Food Security Strategy is building sustainable capacities of host governments, there are essential recommendations to consider when designing a policy support activity, especially if the goal is to sustain the reform process after the project ends.

Dedicated Effort to Mutually Agree on Project Priorities

When designing a policy support activity, it is important to discuss the activity’s objectives, areas of work, and implementing approaches with the host country to ensure that project implementation is based on mutually agreed priorities. Both parties in the partnership can identify a set of intersecting interests and priorities for the reform process.

Committing to Project Implementation After Priorities Have Been Agreed on with Host Government

Upon establishing mutually agreed priorities, USAID and the host country should commit to the policy support activity’s successful implementation. This commitment may come in the form of a memorandum of understanding that maps the required human, technical, infrastructure, and financial support. Fundamentally, the host government should provide its political backing and political will to guide and implement the reform processes resulting from the project’s activities. The development partner’s commitment includes assisting the host government to implement the reforms.

Focusing on a Limited Scope and Number of Stakeholders Allows for More Impactful Activities that Will Affect Policy and Behavioral Changes

The ambitious scope of the project created challenges as the breadth of activities sometimes limited the depth of project activities' impact. On the other hand, the contract's list of beneficiary public and private organizations was too restrictive and sometimes affected delivery, especially if an organization was not ready or not available. The project design should articulate clear objectives that focus on a few policy support areas, and include a limited number of beneficiaries and stakeholders, allowing for the concentration of time and resources to enhance development impacts. Advancing the adoption of new practices takes time, repetition, and mentoring.

Requiring an Agriculture Enabling Environment Baseline

The Agriculture Policy Support Project contract did not require a baseline. Nonetheless, the project collected information on the agriculture policy environment from selected stakeholders, which was used to develop the project's first-year work plan. Future policy projects should require a complete baseline to determine project implementation and provide relevant updated information to develop the first annual work plan.

Incorporate More Robust Monitoring and Evaluation

The project's M&E plan was mostly driven by output indicators which do not always result in the intended impact. A balance of output and outcome indicators would provide a better assessment of progress against indicators and project results. Additionally, it may be necessary to revise the Feed the Future Monitoring System indicators to align with the context of policy support projects, establishing new and actionable approaches to measure impact. Additionally, future projects have an opportunity to increase partners' sense of ownership by involving them in designing tools to measure progress against project objectives.

Proactiveness, Responsiveness, and Flexibility to Changing Circumstances

Throughout its life, the project's main government partner, the Ministry of Food and Agriculture, underwent a series of institutional and leadership changes accompanied by shifts in government priorities. These changes hampered project buy-in and affected prioritization of previously agreed-upon activities. Notwithstanding these changes, the project approached implementation with a high degree of flexibility, as understanding the sector's political economy was paramount to its success and to the sustainability of the project. By applying the "*MoFA's agenda is our agenda*" motto, the Agriculture Policy Support Project team could move forward with most of its contractual objectives, as eventually the project was sufficiently flexible to respond to the ministry's demands.

Focus on Longer-Term Approaches to Capacity Building

A new project should build on the training provided during the project and continue to work to develop more longer-term capacity building efforts that would help institutionalize much of the training, such as coaching and mentoring exercises, international certifications based on executive training programs, and refresher training sessions. Throughout implementation, project staff found that moving to more in-depth training programs would provide longer and more meaningful impact. This will be vital to ensuring sustainable successes of future activities.

Enhancing Stakeholders' Buy-In for Project Objectives at Onset and Throughout Implementation

The project commenced implementation without officially launching the project, losing the opportunity to sensitize stakeholders for their buy-in and cooperation and to manage expectations. Also, while USAID intended to promote closer relationships between project managers and ministry leadership, the extraordinary ministerial turnover throughout the project's life and USAID's mandated limitations to directly engage with the ministry's principals both negatively affected this intention. In the future, USAID could use its influence to create a platform for project managers to meet regularly with key policymakers to discuss project objectives and to seek their ongoing buy-in.

Build on Small Grants to Allow for Longer-Term Complex Grants

Project grants were limited to small grants that could not be longer than one year. To allow for long-term adoption and support a culture of change, future programs should comprise a diversified grants portfolio that includes longer-term, multi-year grants.

LESSONS LEARNED FROM AND RECOMMENDATIONS ON SPECIFIC PROJECT INTERVENTIONS

Supporting the METASIP/SAKSS Nodes Initiatives

Although the project was successful in reviving the functionality of the METASIP Steering Committee and SAKSS nodes, the host-country government still does not fully appreciate the usefulness and the political and technical significance of these two coordinating bodies. In a future policy support activity, support for them should be contingent on whether the host country commits its own resources to facilitate their meetings, listens to their policy recommendations, and acts upon feasible recommendations.

Functioning of the National Seed Council

For a long time, this important mandated body to guide seed development in Ghana was not able to convene its members for lack of financial resources from the government to pay sitting allowances. The problem with sitting allowances is pervasive in the public sector, which affects important meetings and decisions. Development partners expect that any future projects working with these coordinating or policy discussion bodies — e.g., the METASIP Steering Committee, SAKSS nodes, NSC — include the expectation that these bodies pay the mandatory sitting fees. For the past three years, most development partners in Ghana have stated that it is not an item eligible for support. The Plants and Fertilizer Act (Act 803) established the Plants and Fertilizer Fund, and one of its objectives includes providing financial resources for the NSC. This could be a potential funding source for the NSC's effective operations, including the respective allowances for its members.

Selecting Local Institutions to Develop Needed Agriculture Policy Research

The project's 15 high-quality research studies emanated from open and fully competitive bids, through which the project received close to 100 proposals from 20 academic and research institutions. Although such an approach ensures transparency in the allocation of grants and/or subcontracts, it is also lengthy and administratively cumbersome. In a future policy support activity, the direct identification of renowned

research institutions with experienced and capable researchers with transparent criteria is more effective than an open market procurement of researchers.

Strengthening Local Capacities for Policy Research and Analysis

The project provided training and equipment to local research institutions and other stakeholders in the agriculture landscape. However, future policy projects should deliver policy research and analysis capacity building activities, such as certificate or executive programs, over a longer period. Short-term training curricula should be more in-depth.

Future coaching and mentoring programs will be more effective when selected officials can participate without frequent interruptions. Often the reason for absence from mentoring and training was the office workload, despite directors' awareness of the training program. The selected staff need to appreciate that in addition to building their capacity for their ministry, they are also acquiring knowledge for their self-development. The ministry's directors' explicit commitment to training and mentoring programs is crucial as they oversee personnel selected for the training. The ideal situation is for directors to set aside certain weekdays or times for training participation.

Disseminating Research Knowledge

The project held two agriculture policy research summits. At the first summit, participants presented nine research papers, while they presented two at the second event. The project team learned that it is more effective to focus on a few rather than many research presentations at each event. With a handful of topics and a focused selection of policymakers and stakeholders, discussions of findings and recommendations are more productive and the feedback is richer.

Build on Work with Seed Sector to Continue

As indicated elsewhere in this report, the project's interventions to assist with developing the seed industry in Ghana have provided a wealth of lessons, especially related to identifying relevant stakeholders to continue the work and the areas in which the most success can be accomplished. Continued work with NASTAG to assist the association with rolling out its ambitious yet important five-year strategic plan is fundamental to advancing the needed seed policy reforms for increasing the supply and uptake of high-quality seeds. Additionally, strengthening the regulatory and oversight capacities of GSID is key to achieving success in implementing reforms and policies aimed at enhancing private sector participation along the seed value chain. Between May and July 2018, the Feed the Future Agriculture Policy Support Project and the Agriculture Technology Transfer Project proposed to the Alliance for a Green Revolution in Africa that their work must be scaled up to sustain the seed sector's momentum and consolidate both projects' policy reforms and field technical interventions. In the case of the Agriculture Policy Support Project, interventions include engaging breeders and seed companies through licensing agreements to produce foundation seed, expanding the accreditation program for private seed certification, and implementing the quality management plans for seed companies that were trained by the project. Our collaboration with the Alliance for a Green Revolution in Africa conforms to USAID/Ghana's plan to continue working with them in the seed sector. Finally, USAID should use the project's SMIFS study for

addressing the many technical and market challenges hindering the growth and sustainability of Ghana's seed industry and use its recommendations to design future seed interventions in Ghana.

Focused Support to Civil Society, Agribusiness, and Media

Civil society, agribusiness, and media lack the technical and financial capacity to engage with the public sector to advocate for needed policy reforms. The project's technical training and grants empowered CSOs to undertake rigorous policy advocacy activities that contributed to increased private sector voice and participation in policymaking, which is unprecedented in Ghana. Similarly, local-level understanding and appreciation of Ghana's agriculture policy has increased. Based on the project's work, a future policy support project should include this type of support to a handful of selected institutions.

Improving Public-Private Dialogue for More Effective Policies

Bringing CSOs with competing interests together to form coalitions has its own challenges. Future approaches should leverage existing champions with wide networks and requisite experience in public-private dialogue to lead the process. Networks are more effective than individual CSOs. Some promising examples that should be supported and sustained include HAG's policy dialogues, Ghana Chamber of Agribusiness' emergence as the voice of the private sector in agriculture, and NETRIGHT's focus on women and nutrition.

Communication of Evidence to Policymakers

Effective communication of evidence to policymakers is imperative, and the dissemination of this knowledge differs depending on the location of the intended audiences. For instance, for policymakers and stakeholders in urban areas, print articles and TV news could be effective means of communication. However, the literacy level of people in the rural areas can be low, so print media may be ineffective. Therefore, the use of local radio is more effective to reach the population in those areas. Communication should be in local languages. Local radio, community meetings, and town hall meetings could be effective means of encouraging rural farmers and stakeholders to participate in the policymaking process. District policymakers, from project experience, have little time to read research documents, policy documents, and technical research findings. To garner policymaker buy-in, evidence should be packaged in a simple way as grantee Rite 90.1 FM did by tailoring radio programs to reach farmers and local politicians alike, discussing policy issues relevant to their communities, and inviting farmers and local policymakers on the show to discuss these issues together. In many cases, overcomplicated reports and excessive statistics can be off-putting to policymakers, so short reports, policy dialogues, and informal meetings are more effective than large publications.

ANNEX A. PERFORMANCE INDICATOR TRACKING TABLE

EXHIBIT A-1. PERFORMANCE INDICATOR TRACKING TABLE

INDICATOR	TARGET	BASELINE	LENGTH OF ACTIVITY RESULT	STATUS
Score, in percentage, of combined key areas of organizational capacity among direct and indirect local implementing partners	80%	71%	80%	Length of activity (LOA) target achieved
Number of individuals who have received U.S. government-supported short-term agriculture sector productivity or food security training	5,000	0	5,379	LOA target exceeded
Number of organizations focusing on women in agriculture policy advocacy, demonstrating knowledge of sources, and using sex-disaggregated agriculture data	10	0	10	LOA target achieved
Number of agricultural and nutritional enabling environment policies analyzed, consulted on, drafted or revised, approved, and implemented with U.S. government assistance	Stage 1 to 20 Stage 2 to 15 Stage 3 to 10 Stage 4 to 5 Stage 5 to 3	0	Stage 1 to 17 Stage 2 to 20 Stage 3 to 22 Stage 4 to 19 Stage 5 to 13	LOA target exceeded
Number of government units or divisions that have received short-term training	20	0	27	LOA target exceeded
Number of agriculture policy communications developed or written for stakeholder consumption	200	0	270	LOA target exceeded
Number of activity-supported policy advocacy campaigns that focus on the separate needs of men and women smallholder farmers	20	0	34	LOA target exceeded
Number of high-quality research reports published	15	0	15	LOA target achieved
Score, in percentage, of improved areas of policy research capacity in assisted research organizations and units	80%	62%	84%	LOA target exceeded
Score, in percentage, of the capacity of the private sector to advocate for pro-business agriculture sector reform in Ghana	80%	63%	82%	LOA target exceeded
Number of public-private advocacy dialogues focused on policy that supports private sector investment	120	0	126	LOA target exceeded
Percentage of implemented recommendations agreed upon during public-private dialogues	30%	0	59%	LOA target exceeded

INDICATOR	TARGET	BASELINE	LENGTH OF ACTIVITY RESULT	STATUS
Number of food security private enterprises (for profit), producers' organizations, women's groups, and trade and agribusiness associations receiving U.S. government assistance	90	0	150	LOA target exceeded
Number of local entities receiving performance improvement assistance (government units, CSOs, public sector and for-profit organizations)	110	0	177	LOA target exceeded

ANNEX B. AGRICULTURE POLICY RESEARCH STUDIES, ASSESSMENTS, STRATEGIC ANALYSES, AND REPORTS

EXHIBIT B-1. AGRICULTURE POLICY RESEARCH STUDIES, ASSESSMENTS, AND REPORTS

RESEARCH INSTITUTION	TITLE OF STUDY	QUICK RESPONSE CODE	OBJECTIVE/RECOMMENDATIONS	EXPECTED IMPACTS
METASIP/SAKSS THEMATIC GROUP 1: FOOD SECURITY AND EMERGENCY PREPAREDNESS				
<p>University of Cape Coast</p> <p>Published: Ghanalinks.org https://goo.gl/TjqbeH August 2018</p> <p>Published: Plos one https://goo.gl/DqXePK September 2018</p>	<p>Policy Research: <i>Systematic Review of Food Security Interventions in the USAID Zone of Influence in Ghana</i></p>		<p>This study's aim is to systematically review Ghanaian government food security policy and program interventions in food security and emergency preparedness in Ghana's three deprived northern regions and to determine whether the interventions had an impact.</p> <p>The study recommends explicitly incorporating food security indicators into performance measurement plans and rigorous program evaluations using counterfactuals. It also recommends that development partners synchronize their measurement of food security indicator outcomes.</p>	<p>Implementing recommendations will improve program interventions and national efforts to enhance food security and emergency preparedness in Ghana.</p>
<p>University for Development Studies</p> <p>Published: Ghanalinks.org https://goo.gl/yo7EMs August 2018</p>	<p>Policy Research: <i>The Welfare Impact of USAID-ADVANCE Intervention Program: Evidence from ACDEP [Association of Church-based Development NGOs in Northern Ghana] Facilitation in Northern Ghana</i></p>		<p>This study's goal is to analyze and recommend strategies to enhance the agricultural crop value chain approach as a model for improving the livelihoods and incomes of rural households.</p> <p>The study concludes that agricultural programs that targeted gender in extension delivery more effectively benefited female farmers. The value chain project's gendered extension delivery empowered female farmers, increased access to land, and increased yields. The Ministry of Food and Agriculture and development partner projects should use more female extension agents and</p>	<p>The recommendations that government and development partners implement will positively affect female farmers.</p> <p>The adoption and implementation of recommendations will increase women's access to extension services and other resources, thereby leading to female empowerment.</p>

RESEARCH INSTITUTION	TITLE OF STUDY	QUICK RESPONSE CODE	OBJECTIVE/RECOMMENDATIONS	EXPECTED IMPACTS
			advocacy groups (CSOs and male champions) to overcome socioeconomic barriers.	
<p>University for Development Studies</p> <p>Published: Ghanalinks.org https://goo.gl/DMQ6Fw September 2018</p>	<p>Policy research: <i>Assessment of the Implementation of Planting for Food and Jobs Program in Ghana: Lessons and Ways Forward</i></p>		<p>The study thoroughly assesses a major initiative of the Ghanaian government in food security – the <i>Planting for Food and Jobs Program in Ghana</i> (2017) — using quantitative and qualitative tools to identify challenges and opportunities.</p> <p>The most important recommendations from the report include: improving farmers’ awareness on growth opportunities that arise from PFJ implementation; improving gender and youth inclusiveness; the timely release of inputs; the need to differentiate technological packages by agro-ecological regions; the need for PFJ to be politically neutral to reflect an inclusive national program; and the involvement of the private sector to take full charge of the distribution and sale of subsidized inputs.</p>	<p>Implementing this study’s recommendations will improve livelihoods, reduce poverty, and reduce food insecurity.</p>
<p>Modernizing Extension and Advisory Services/Agriculture Policy Support Project (a joint report)</p> <p>Published: Ghanalinks.org https://goo.gl/1EAk5P September 2017</p>	<p>Policy report: <i>Report on Agriculture Extension Policy Reform in Ghana: A Review of Farmer Based Organization (FBO) Strategy</i></p>		<p>The review’s objective is to analyze key themes in extension policy issues and to create awareness of the issues.</p> <p>The review’s recommendations are that extension services should cater to marginalized groups such as female farmers, allow public-private partnerships in extension delivery services, and establish an Extension Policy Standing Committee to advocate for policy reform.</p>	<p>Given that the ministry’s extension delivery strategy focuses on use of FBOs, the revised strategy will promote the formation and development of strong service-oriented farmer organizations for this purpose. FBOs will become service oriented for its members and capable of enforcing good agricultural practices. It will also give its members extension support. This support system will increase farmer productivity, ensure food security, and reduce poverty.</p>

RESEARCH INSTITUTION	TITLE OF STUDY	QUICK RESPONSE CODE	OBJECTIVE/RECOMMENDATIONS	EXPECTED IMPACTS
				This strategy's long-term impact will be the emergence of FBOs' vibrant, sustainable, and business-oriented services for their members (i.e., extension delivery) and advocacy for legislation to enforce contracts between farmers and other stakeholders.
Iowa State University Published: Ghanalinks.org https://goo.gl/1EAk5P September 2018	Policy report: <i>Desk-top Analysis and Progress Report on Developing an Enabling Environment for Seed Industry Growth for Ghana</i>		<p>This report examined three policy instruments: The National Seed Policy, the seed section of the Plant and Fertilizer Act of 2010, and the Seed Regulations. The exhaustive desk-top analysis identifies specific areas where these three policy instruments need modifications to improve the regulatory enabling environment for the private seed sector's growth.</p> <p>The technical recommendations drove the policy reforms that the project moved forward with in collaboration with the ministry. They are now part of the policy instruments or institutional mechanisms that are either under implementation—seed licensing policies, guidelines for production of foundation seed by private companies, seed certification and accreditation, capacity building of the GSID, etc.—while others are still pending approval, such as the Seed Regulations and the Procedure Manual on Variety Release.</p>	Ghana's seed industry is being reformed, modernized, and commercialized. Interventions in the seed sector have contributed to improving the enabling environment for private sector investments in the seed industry. The use of certified seeds will boost agricultural productivity and incomes in Ghana. Seed companies are increasing their participation along the seed value chain, from participating in the production of foundation seeds to undertaking seed certification as accredited agents.
Agriculture Policy Support Project Published: Ghanalinks.org https://goo.gl/4c4Fid August 2018	Study: Seed Market Industry Framework and Strategy (SMIFS)		The project developed a Seed Market Industry Framework and Strategy to articulate a medium-term seed sector growth development strategy. The strategy is framed into three phases and the first phase ended with the project's close out. The study emphasizes the private sector's key role in	The adoption and implementation of recommendations will help fast-track the country's seed development effort and ramp up seed uptake, which will increase agriculture productivity in Ghana.

RESEARCH INSTITUTION	TITLE OF STUDY	QUICK RESPONSE CODE	OBJECTIVE/RECOMMENDATIONS	EXPECTED IMPACTS
			<p>establishing a sustainable, profitable seed industry in Ghana.</p> <p>The remaining two phases include longer-term recommendations such as following-up on improvements in the seed business enabling environment including the approval of pending regulations and the modification of approved regulations that need fine tuning; implementing a technical assistance component to provide seed-related training to public and private stakeholders; supporting an intensive educational campaign to promote seed uptake by farmers; developing a financing window for upfront payments of seed purchases; supporting licensing agreements; refurbishing the GLDB infrastructure to be handed over to NASTAG for management; supporting productive and managerial skills of 15 to 20 Ghanaian “champion” seed companies; and developing a capacity building component to further develop the institutional and organizational capacities of NASTAG as leader of Ghana’s seed industry, especially focusing on technical, information, and seed business enabling services to its members.</p>	<p>The study has been widely disseminated to relevant stakeholders, who are using its content and recommendations to design and implement new seed development programs.</p>

RESEARCH INSTITUTION	TITLE OF STUDY	QUICK RESPONSE CODE	OBJECTIVE/RECOMMENDATIONS	EXPECTED IMPACTS
METASIP/SAKSS THEMATIC GROUP 2: INCREASED GROWTH IN INCOMES				
University for Development Studies Published: Ghanalinks.org https://goo.gl/33GWHB August 2018	Policy research: <i>Changing Access and Use Pattern of Land in Urban and Peri-Urban Areas: A Threat to Agricultural Production?</i>		<p>The study assesses the impacts of land use on urban and peri-urban agriculture areas and made policy recommendations to the Ghanaian government on sustainable management of land and environment.</p> <p>Key recommendations include: the ministry, Town and Country Planning, and the Assemblies should collaborate to designate urban and peri-urban agriculture (UPA) areas; the government should carry out nationwide zoning of lands into UPA, real estate, and industrial areas working with other actors and chiefs as stakeholders; UPA activity should be regulated to ensure best practices and constant supply food to the urban areas; the ministry should establish a UPA desk at each regional office to support UPA activities; and the ministry, together with the chiefs and Town and Country Planning, should liaise and ensure that only zoned and mapped lands are sold to people.</p>	Implementing the recommendations will streamline and save peri-urban and urban agriculture from competition for land from other sectors of the economy.

RESEARCH INSTITUTION	TITLE OF STUDY	QUICK RESPONSE CODE	OBJECTIVE/RECOMMENDATIONS	EXPECTED IMPACTS
Iowa State University Published: Ghanalinks.org https://goo.gl/GRfPaC March 2017	Policy research: <i>Agricultural Insurance in Ghana</i>		The document reviews prior research on agricultural insurance in Ghana and examines recent developments and prospects regarding agricultural insurance programs. Part of the study included stakeholder interviews on the reasons for disappointing adoption of agriculture insurance in Ghana. Recommendations include: (a) bolstering marketing efforts, (b) obtaining government support, (c) promoting education/awareness, (d) expanding the number of agricultural insurance products, (e) reducing basic risk, (f) changing the form of the insurance pool, and (g) modifying the composition of the agricultural insurance steering committee. Absent large subsidies, the prospects for agricultural insurance to become a major risk management tool in Ghana are not encouraging.	The research on agriculture insurance experiences in Ghana and elsewhere has provided insights and tools that can be used to develop agriculture insurance programs in Ghana to mitigate risks inherent in agriculture and thereby increase small-scale farmers' productivity.
METASIP/SAKSS THEMATIC GROUP 3: INCREASED COMPETITIVENESS AND ENHANCED INTEGRATION INTO DOMESTIC & INTERNATIONAL MARKETS				
Institute of Statistical, Social, and Economic Research Published: Ghanalinks.org https://goo.gl/vqnTMG September 2018	Policy research: <i>Public-Private Partnership Arrangements in the Agriculture Sector in Ghana</i>		This study's goal is to investigate factors that drive the development of effective, sustainable public-private partnerships in the agriculture sector. Recommendations include: the need to develop an agri-PPP policy/strategy document tailored to the particular characteristics of the agriculture sector; the need for education and sensitization of the general public on PPPs if the government wants to truly benefit from PPP arrangements; the rationale for setting up the Ghana Incentive-Based Risk-Sharing System for Agricultural Lending (GIRSAL) is good and should be supported; the government must continue to create the enabling environment to attract private	Government and key stakeholders — public-sector, private-sector, and development partners — have guidelines and evidence to make decisions to establish sustainable agriculture sector public-private partnerships in Ghana.

RESEARCH INSTITUTION	TITLE OF STUDY	QUICK RESPONSE CODE	OBJECTIVE/RECOMMENDATIONS	EXPECTED IMPACTS
			sector resources and expertise into the agriculture sector, including the development of land banks for agriculture.	
Centre for Policy Analysis	Policy report: <i>An Assessment of the National Food Buffer Stock Company</i>	Ministry of Food and Agriculture and the project's internal technical documents – No barcode available	<p>The report assesses policy on price market interventions and effects of the establishment of national food buffer stocks.</p> <p>Three broad recommendations emanate from the conclusions of this study: to structure and re-define the NAFCO's mandate with a new legal mandate to focus on the operation and management of government emergency food buffer stocks for high volume strategic markets; to completely privatize NAFCO by selling off its assets to a private sector operator; and to establish a public private partnership.</p>	The assessment of NAFCO will help the ministry reassess and amend NAFCO's mandate and operations so they are responsive to private sector concerns of market distortions, thereby assisting in creating a competitive pricing system and an enabling environment for increased private sector investment in agriculture marketing in Ghana.
Centre for Policy Analysis Published: Ghanalinks.org https://goo.gl/ofKZta March 2017	Policy research: <i>Situation Analysis of Agricultural Marketing Activities and Related Institutional Arrangements in Ghana</i>		<p>This study's two-pronged objective is to provide a comprehensive situational analysis of the agricultural marketing system in Ghana by assessing the agriculture sector's strengths and weaknesses in relation to its current and future needs and to identify marketing policy reforms.</p> <p>The study recommends harmonizing existing agricultural marketing policies and regulatory frameworks to effectively enforce standards.</p>	<p>The three studies have a common objective of modernizing agriculture commodity trading, the expected impacts of which include:</p> <ul style="list-style-type: none"> • Stronger coordination among agencies (Ministry of Trade and Industry, Ministry of Food and Agriculture, and Ghana Standards Authority) responsible for enforcing regulations on grading and standards, thereby enabling commodity trading mechanisms, like commodity exchanges and warehouse receipt systems, to function.
Council for Scientific and Industrial Research – Crops Research Institute Published: Ghanalinks.org https://goo.gl/ZjihwD August 2018	Policy research: <i>Market Standardization, Grading, and Pricing in the Maize Market in Ghana: The Case of Ejura-Sekyeredumase Municipality</i>		<p>This study analyzes standards used in crop marketing and provides policymakers with options for introducing standards in the grading and marketing of maize in Ghana.</p> <p>Main recommendations include: Maize value chain actors must be supported to form Innovation Platforms to facilitate education and promotion of marketing standards;</p>	<ul style="list-style-type: none"> • Implementing commodity grading and standardization will support the establishment of more transparent pricing systems,

RESEARCH INSTITUTION	TITLE OF STUDY	QUICK RESPONSE CODE	OBJECTIVE/RECOMMENDATIONS	EXPECTED IMPACTS
			<p>implementation of massive public education linking quality standards to health and incomes of the citizenry to create the necessary environment needed for attitudinal change; government and other key stakeholders should implement the Warehouse Receipt System (WRS); lessons must be drawn from the grassroots experiences of the two municipal assemblies that enacted the required by-laws to compel compliance with the standards; there must be inter-ministerial efforts in regulating and enforcing developed standards; and, to improve market efficiency, a Legislative Instrument (LI) on regulations on agricultural commodities standardization including maize grains is needed.</p>	<p>benefiting smallholder farmers marketing their produce through commodity trading mechanisms</p> <ul style="list-style-type: none"> Implementing commodity trading systems is expected to create an orderly, efficient, sustainable, and transparent marketing system that will promote increased investments in the food and agriculture industries.
<p>Centre for Policy Analysis Published: Ghanalinks.org https://goo.gl/RRAKXU September 2018</p>	<p><i>Assessment: Evaluation of the Ghana Commodity Exchange (GCX) and Warehouse Receipt System (WRS) – Identifying the Building Blocks for Commodity Trading in Ghana</i></p>		<p>The GCX and WRS evaluation identified building blocks for technical and financial assistance to establish well-functioning commodity trading in Ghana.</p> <p>This study identifies key measures necessary to build the GCX, including the adoption of standardization and grading practices while selling agricultural commodities, passage of the draft WRS regulations to give the system the force of law, increase awareness and knowledge among traders and farmers about WRS, increase warehouses and membership of the WRS, adopt commercial approach to developing commodity exchange, develop commodity exchange rules and regulations, guarantee settlement of trading transactions, among the most important.</p>	

RESEARCH INSTITUTION	TITLE OF STUDY	QUICK RESPONSE CODE	OBJECTIVE/RECOMMENDATIONS	EXPECTED IMPACTS
METASIP/SAKSS THEMATIC GROUP 4: SUSTAINABLE MANAGEMENT OF LAND AND ENVIRONMENT				
University for Development Studies Published: Ghanalinks.org https://goo.gl/FtGEfM August 2018	Policy research: <i>Documenting the Various Sustainable Land and Water Management Technologies into Forms That Can Be Used for Extension Service Delivery by Both Public and Private Sector Service Providers</i>		<p>This report's purpose is to document sustainable land and water management technologies (SLWM).</p> <p>Recommendations include that the Ministry of Food and Agriculture, with support of development partners, should facilitate the development of a national knowledge database on proven key SLWM technologies as demonstrated in key agro-ecological zones across the country; SLWM projects should move from pilots to high levels of upscaling in whole communities; it should be a mandatory requirement that all major agricultural development projects by both public and private sector integrate SLWM technologies in their implementation; PPPs should be adopted for the implementation of SLWM technologies; the ministry, with support from development partners, needs to immediately employ more Agricultural Extension Agents (AEAs) and provide basic logistics, such as vehicles and motorcycles, to facilitate extension activities.</p>	Farmers will greatly benefit if extension services understand and provide information on the land and water management practices assessed in the research, thereby improving the overall condition of agriculture production in Ghana.
A collaboration between the project, Ghana Strategy Support Program/IFPRI, West African Fertilizer Program, Michigan State University Innovation Lab for Food Security Policy, and African Fertilizer and Agribusiness Partnership Published: Ghanalinks.org	Policy research: <i>Towards a Sustainable Fertility Strategy in Ghana</i>		<p>This study examines the fertilizer subsidy program in Ghana and the broader issue of soil fertility, in general. The study provides policy and technical options as well as a sustainable strategy to improve soil fertility management to achieve agricultural productivity growth.</p> <p>Recommendations include the adoption of public sector research programs to identify region-specific best practices for amending soil conditions, given the great micro-variability in</p>	The Ghanaian government has incorporated three recommendations into the input subsidy program, which has affected the Fertilizer Subsidy Program by reducing public-sector control, improving efficiency, and increasing the private sector's participation in the marketing of inputs.

RESEARCH INSTITUTION	TITLE OF STUDY	QUICK RESPONSE CODE	OBJECTIVE/RECOMMENDATIONS	EXPECTED IMPACTS
https://goo.gl/4H1mNg April 2016			agro-ecological conditions in the country; adoption of public agricultural extension programs to transfer best practices to farmers as well as provide bi-directional learning between researchers and farmers to refine best practices in light of farmers' experiences in their fields; adoption of input distribution systems that make available the full range of soil enhancement technologies, based on the use of simple mobile soil testing kits that provide rapid site-specific soil diagnostics to guide fertilizer recommendation decisions by the farmer and the promotion of transparency in the implementation of the Fertilizer Subsidy Program.	
Agriculture Policy Support Project Published: Ghanalinks.org https://goo.gl/LZzJJC April 2018	<i>Review of the National Irrigation Policy, Strategies, and Regulatory Measures for the Irrigation Sub-sector of Ghana</i>		<p>This study reviewed the National Irrigation Policy to recommend areas for revision, and opportunities for modernization and expansion suitable for a commercialized agriculture sector which includes ongoing full cost recovery.</p> <p>Main policy implementation recommendations include developing a National Irrigation Development Master Plan to guide the growth of irrigation infrastructure, establishment of innovative financial instruments that promote diversification and investment in high input/high output farming systems, reducing state responsibility for scheme operation and maintenance, improving the nature and scope of service delivery in the sub-sector, improve and better enforce the regulatory framework, better define and finance GIDA's role in service provision, establish public private partnerships for development and implementation of irrigation schemes, increase other commercial investments in irrigated production; and, increase other</p>	<p>The proposed revised policy was accepted by the authority's board and now is before the cabinet for its approval. The adoption of the recommendations of the policy report and the enactment of the new National Irrigation Policy, will:</p> <ul style="list-style-type: none"> • Promote commercialized, cost-effective irrigation service delivery based on full recurring cost recovery; • Promote increasing levels of commercial sector participation in production and service delivery, including public-private partnerships; • Promote innovative financing and transaction models, e.g., blended financing; • Contribute to high total factor productivity; • Contribute to livelihood creation

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			commercial investments in sub-sector service delivery.	<p>and diversification accruing to diversified production and added value;</p> <ul style="list-style-type: none"> • Promote drastic reductions in the state's exposure to scheme financing needs, including subsidies which will become time-bound and used to mitigate risk, not support production; and • Promote spatial expansion toward the country's full irrigation potential.
METASIP/SAKSS THEMATIC GROUP 5: SCIENCE AND TECHNOLOGY APPLIED IN FOOD AND AGRICULTURE				
<p>University for Development Studies</p> <p>Published: Ghanalinks.org https://goo.gl/RjWeJV August 2018</p>	<p>Policy research: <i>Assessing the Role and Effectiveness of Mobile Phone Technology on Agricultural Extension Services Delivery in Northern Ghana: The Case of Tolon District (master's thesis)</i></p>		<p>This study's purpose is to inform policymakers on the adoption and use of the most effective mobile technology in the delivery of extension services within the context of METASIP.</p> <p>Recommendations highlight the need for institutional collaboration between the ministry, telecommunication networks, and key stakeholders in agriculture to develop a strategy to speed up the use of mobile phone technology in agricultural extension (use of voice and video in weather and marketing messages).</p>	<p>Findings will assist the Ghanaian government and development partners with initiating policy interventions that will promote the adoption and use of relevant mobile technologies in Ghana to improve agriculture extension delivery for increased agriculture production and growth.</p>
<p>University for Development Studies</p> <p>Published: Ghanalinks.org https://goo.gl/PEz1RN August 2018</p>	<p>Policy research: <i>Productivity Heterogeneity of Rice Production in Ghana: Policy Implications for Farmer Innovations and Improved Agricultural Technologies (doctoral dissertation)</i></p>		<p>The purpose of this dissertation is to research gender dynamics in rice production and recommend to policymakers technologies that will enable female farmers to increase their productivity.</p> <p>The central recommendation is that the Ministry of Food and Agriculture, development partners, and individual private companies promote the adoption of improved agricultural technologies as</p>	<p>The adoption of the recommended technologies will support smallholder farmers in Ghana to address their resource constraints, help increase their productivity and incomes, improve their livelihoods, and reduce poverty.</p>

RESEARCH INSTITUTION	TITLE OF STUDY	QUICK RESPONSE CODE	OBJECTIVE/RECOMMENDATIONS	EXPECTED IMPACTS
			well as educate farmers on how to coordinate and synergize the adoption of the whole package. The designed policy for the promotion of this superior technology should be intensified and farmers should be targeted in the whole country, especially the Guinea Savannah Zone (GSZ), considering the high percentage of non-adopters of the superior technology package.	
Council for Scientific and Industrial Research – Crops Research Institute Published: Ghanalinks.org https://goo.gl/V2tesg September 2018	Assessment: <i>An Assessment of the Preparedness of National Research Institutes and Universities for DUS and VCU Testing Under the Newly Proposed Crop Variety Release and Registration System</i>		The assessment concludes that research institutions have technical and basic infrastructural capacity to conduct DUS and VCU testing in Ghana. However, recommendations point to the need for technical equipment, like functioning seed testing laboratories, to be fixed in some institutions.	Awareness of processes among research institutions for testing seed varieties has been ramped up; the implementation of recommendations to fix technical equipment will lead to the availability of quality seeds for farmers.
Landesa Rural Development Institute Published: Ghanalinks.org https://goo.gl/dXFXFP March 2017	Policy report: <i>An Analysis of the Ghana Land Bill and Suggested Provisions</i>		The government used analysis from this report to revise the Land Bill. Recommendations include i) seeking ways to reduce the costs of registration and recording rights to make these services more widely accessible, and to sensitize land rights holders to the importance of registering/recording their rights; ii) ensuring that constitutional safeguards against discrimination of protected classes apply even within customary systems; iii) mandating in the Bill that all land sector agencies prominently and publicly post information about: (a) detailed steps necessary for any procedure (e.g., registration); (b) timelines for agency action in response to these steps; and (c) fees required; iv) more clearly articulating registration and recording options for land rights in Ghana. The	Passage and implementation of the law will improve land administration in Ghana, establishing an enabling environment for increased private sector investments in agriculture, and long-term agriculture growth and development. As of September 2018, the revised bill is before parliament for legislation to be enacted.

RESEARCH INSTITUTION	TITLE OF STUDY	QUICK RESPONSE CODE	OBJECTIVE/RECOMMENDATIONS	EXPECTED IMPACTS
			<p>Bill provides three different methods of registering and recording land rights in Ghana, but without making clear when each of these would apply, and what the relationship between the three types will be; v) expanding coverage for electronic registration and conveyancing, based on international experiences that will provide a more comprehensive and sustainable legal framework for electronic land administration systems; vi) incorporation of a more robust legal framework for Large-scale Land Transactions (LSLT), adding new provisions to the Bill to better frame and guide policy related to LSLT, and providing improved linkages to the government's Guidelines for LSLT; vii) defending and refining the Bill's coverage of women's land rights. One of the most significant improvements in Version Four of the Land Bill is the enhanced protection for spousal rights to land. The Bill requires that spouses' names be included when registering land acquired during marriage and provides a presumption that any land acquired during a marriage by one spouse is co-owned by both spouses (even if only one name is registered).</p>	
METASIP/SAKSS THEMATIC GROUP 6: IMPROVED INSTITUTIONAL COORDINATION				
<p>Council for Scientific and Industrial Research – Science and Technology Policy Research Institute</p> <p>Published: Journal of Gender Studies https://goo.gl/oJiKcV December 2017</p>	<p>Policy research: <i>Qualitative Study of Gender-Responsive Agricultural Extensions for Improved Agricultural Productivity in Northern Ghana</i></p>		<p>This study's purpose is to study gender-responsive strategies and practices, as adopted by ADVANCE II, to increase female farmers' adoption of technology.</p> <p>The study concludes that agricultural programs that deliberately targeted gender in extension activities benefited females more than males. The new socio cultural and financial dynamics resulting from the gendered extension delivery by</p>	<p>Implementing recommendations will increase access to productive resources for women, including agriculture extension services, land, and adoption of new technologies, thereby enhancing women's productivity and incomes.</p>

RESEARCH INSTITUTION	TITLE OF STUDY	QUICK RESPONSE CODE	OBJECTIVE/RECOMMENDATIONS	EXPECTED IMPACTS
Published: Ghanalinks.org https://goo.gl/6WrnA8 August 2018			the value chain project has led to improvement in women's empowerment.	
GIMPA Published: Ghanalinks.org https://goo.gl/XTCQnV August 2018	Policy research: <i>Baseline Survey on Gender and Agriculture of Selected Communities in Ghana</i>		<p>This report presents results of a baseline investigation on gender and agriculture in selected agro-ecological zones in Ghana based on indicators of the Ghana Gender and Agricultural Development Strategy (GADS).</p> <p>The study found that although male and female farmers have limited access to credit, women have even less access to it; women have low access to agriculture extension agents.</p>	Implementing recommendations will lead to inclusive national development that considers the special needs of marginalized sections of society, including women and youth.
GIMPA	Assessment: <i>Training Needs Assessment and Training to Strengthen the Capacities of METASIP Steering Committee, SAKSS Coordinators, and Staff of Directorates and Units of the Ministry</i>	Ministry of Food and Agriculture and the project's internal technical documents – No barcode available	<p>This assessment evaluated needs and developed training modules to strengthen the capacities of the METASIP Steering Committee, SAKSS coordinators, and all directorates and units of the ministry.</p> <p>GIMPA developed training modules based on the assessment's recommendations and trained the METASIP Steering Committee, SAKSS coordinators, and directorates and units of the ministry.</p>	The capacity building training program produced a cadre of trained policy staff for METASIP implementing institutions to strengthen the agriculture sector policy process.

RESEARCH INSTITUTION	TITLE OF STUDY	QUICK RESPONSE CODE	OBJECTIVE/RECOMMENDATIONS	EXPECTED IMPACTS
Iowa State University	<i>Short Note on the Development of a Policy Matrix and Establishment of a Policy Unit at Ministry of Food and Agriculture</i>	Ministry of Food and Agriculture and the project's internal technical documents – No barcode available	This note's objective is to establish a policy unit staffed by well-trained professionals with the capacity to coordinate agriculture sector policies and undertake rigorous policy analysis that feeds into agriculture policy formulation and implementation.	<p>The ministry's Policy Matrix has been developed and is being used by the ministry as a supporting document to develop the new National Agriculture Investment Policy.</p> <p>With coaching and mentoring from ISSER, the Policy Unit is established, and coaching and capacity building for core staff are carried out. The Policy Unit has developed and disseminated four policy briefs. The ministry's Policy Unit will continuously identify challenges that hinder private sector investments in agriculture, analyze effects of government macro-economic policies on the sector, and thereby design creative evidence-based policy interventions to address the challenges. This will help create an enabling environment for increased agriculture investments.</p>
Centre for Policy Analysis Published: Ghanalinks.org https://goo.gl/uJTwnV September 2018	<i>Policy research: Assessment and Improvement of Agriculture Data Collection Methodologies Used by the Ministry's SRID for Remedial Actions</i>		<p>This assessment's main objective is to evaluate methodologies SRID has used to collect primary and secondary agricultural data. The assessment is also designed to inform recommendations for remedial action.</p> <p>Recommendations have included calculating sample size from a mapped population for each crop in a district and using land equivalent ratios to estimate land cultivated for each crop in inter-cropped fields (mixed cropping).</p>	Several recommendations were accepted and adopted for the production of Agriculture in Ghana "Facts & Figures."

ANNEX C. INDEX OF PROJECT REPORTS AND PRODUCTS

EXHIBIT C-1. INDEX OF PROJECT REPORTS AND PRODUCTS

#	REPORTS AND PRODUCTS
PROJECT PROGRESS REPORTS	
1	Feed the Future Ghana Agriculture Policy Support Project Quarterly Report, Year 1, Quarter 1
2	Feed the Future Ghana Agriculture Policy Support Project Quarterly Report, Year 1, Quarter 2
3	Feed the Future Ghana Agriculture Policy Support Project, Annual Report, Year 2014
4	Feed the Future Ghana Agriculture Policy Support Project, Quarterly Report, Year 2, Quarter 1
5	Feed the Future Ghana Agriculture Policy Support Project, Quarterly Report, Year 2, Quarter 2
6	Feed the Future Ghana Agriculture Policy Support Project, Quarterly Report, Year 2, Quarter 3
7	Feed the Future Ghana Agriculture Policy Support Project, Annual Report, Year 2015
8	Feed the Future Ghana Agriculture Policy Support Project, Quarterly Report, Year 3, Quarter 1
9	Feed the Future Ghana Agriculture Policy Support Project, Quarterly Report, Year 3, Quarter 2
10	Feed the Future Ghana Agriculture Policy Support Project, Quarterly Report, Year 3, Quarter 3
11	Feed the Future Ghana Agriculture Policy Support Project, Annual Report, Year 3 2016
12	Feed the Future Ghana Agriculture Policy Support Project, Quarterly Report, Year 4, Quarter 1
13	Feed the Future Ghana Agriculture Policy Support Project, Quarterly Report, Year 4, Quarter 2
14	Feed the Future Ghana Agriculture Policy Support Project, Quarterly Report, Year 4, Quarter 3
15	Feed the Future Ghana Agriculture Policy Support Project, Annual Report, Year 4 2017
16	Feed the Future Ghana Agriculture Policy Support Project, Quarterly Report, Year 5, Quarter 1
17	Feed the Future Ghana Agriculture Policy Support Project, Quarterly Report, Year 5, Quarter 2
18	Feed the Future Ghana Agriculture Policy Support Project, Quarterly Report, Year 5, Quarter 3
19	Feed the Future Ghana Agriculture Policy Support Project, Final Report
POLICY RESEARCH, ASSESSMENTS, AND REPORTS	
1	Agricultural Insurance in Ghana
2	Situation Analysis of Agricultural Marketing Activities and Related Institutional Arrangements in Ghana
3	Baseline Survey on Gender and Agriculture of Selected Communities in Ghana
4	Desk-Top Analysis and Progress Report on Developing an Enabling Environment for Seed Industry Growth for Ghana
5	Report on Agriculture Extension Policy Reform in Ghana: A Review of Farmer Based Organization (FBO) Development Strategy
6	Review of the National Irrigation Policy, Strategies, and Regulatory Measures for the Irrigation Sub-Sector of Ghana
7	An Analysis of the Ghana Land Bill and Suggested Provisions
8	An Assessment of the National Food Buffer Stock Company (NAFCO)

#	REPORTS AND PRODUCTS
9	Assessment and Improvement of Agriculture Data Collection Methodologies Used by the Ministry's SRID for Remedial Actions
10	Seed Market Industry Framework and Strategy (SMIFS)
11	Towards a Sustainable Soil Fertility Strategy in Ghana
12	Short Note on the Development of a Policy Matrix and Establishment of a Policy Unit at Ministry of Food and Agriculture
13	Training Needs Assessment and Training to Strengthen the Capacities of METASIP Steering Committee, SAKSS Coordinators, and Staff Directorates and Units of the Ministry
14	Evaluation of the Ghana Commodity Exchange (GCX) and Warehouse Receipt System (WRS) – Identifying the Building Blocks for Commodity Trading in Ghana
15	Assessment of the Implementation of the Planting for Food and Jobs (PFJ) Program, Lessons Learned and the Way Forward
16	Public-Private Partnership Arrangements in the Agriculture Sector in Ghana
17	Documenting the Various Sustainable Land and Water Management Technologies into Forms that can be Used for Extension Service Delivery by Both Public and Private Sector Providers
18	Market Standardization, Grading and Pricing in Maize Markets in Ghana: The Case of Ejura-Sekyereduamse Municipality
19	Assessing the Role and Effectiveness of Mobile Phone Technology on Agricultural Extension Services Delivery in Northern Ghana: The Case of Tolon
20	Productivity Heterogeneity of Rice Production in Ghana: Policy Implications for Farmer Innovations and Improved Agricultural Technologies
21	Qualitative Study of Gender Responsive Agricultural Extension Delivery for Improved Agricultural Productivity in Northern Ghana
22	Systematic Review of Food Security Interventions in the USAID Zone of Influence in Ghana
23	The Welfare Impact of USAID-ADVANCE Intervention Program: Evidence from ACDEP [Association of Church-based Development NGOs in Northern Ghana] Facilitation in Northern Ghana
24	Changing Access and Use Patterns of Land in Urban and Peri-Urban Areas: A Threat to Agricultural Production?
25	An Assessment of the Preparedness of National Research Institutes and Universities for DUS and VCU Testing Under the Newly Proposed Crop Variety Release and Registration System
POLICY BRIEFS	
1	Situation Analysis of Agricultural Marketing Activities and Related Institutional Arrangements in Ghana
2	Mobilizing Action Towards Agriculture Sector Improvement (MAASI)
3	Food Security Interventions in Northern Ghana: The Way Forward
4	Towards a Sustainable Soil Fertility Strategy in Ghana
5	Performance Assessment of the 1st Generation National Agriculture Investment Plans (NAIP) – Medium Term Agricultural Sector Investment Plans (METASIP I & II)
6	Planting for Food and Jobs Campaign: 2017 Status Report for Fertilizer and Seed Components
7	Ghana Agriculture Sector Expenditure Trends: Assessment of Expenditure as Against Growth Rate (Malabo Target)
8	Allocation to Ministry of Food and Agriculture in 2018 National Budget: Trends and Issues
TOOLKITS	
1	Training in Operations Management for Designated Non-State Actors in the Agricultural Sector
2	Policy Analysis, Advocacy Planning, and Implementation Toolkit

#	REPORTS AND PRODUCTS
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1	Support to Land Policy Reforms
2	Promoting Gender-Inclusive Agriculture in Ghana
3	Creating Awareness on the Plants and Fertilizer Act 2010 (Act 803) in Ghana
4	Enhancing the Advocacy Capacity of Rice Farmers in the Volta Region
5	Strengthening the Enabling Environment for a Modern and Thriving Seed Industry in Ghana
6	Summing up the Contributions of the Feed the Future Ghana Agriculture Policy Support Project to Agriculture Policymaking in Ghana



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