FEED THE FUTURE NIGERIA AGRICULTURAL POLICY PROJECT

Quarterly Report – Year 5

Annual Report October 1, 2019 – September 30, 2020

Associate Cooperative Agreement Number AID-620-LA-15-00001
Activity Period: July 1, 2015 to December 31, 2020
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Submitted October 31, 2020

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ACRONYMS

AAP	Alliance for African Partnership
A4NH	Agriculture for Nutrition and Health
ACIOE	Accountability, Commitment, Innovation, Optimistic, Excellence
ADAN	Association of Deans of Agricultural Universities
ADWG	Agriculture Donor Working Group
AfCFTA	African Continental Free Trade Area
AVC	Agricultural Value Chain
AEAS	Agricultural Extension and Advisory Services
AERC	African Economic Research Consortium
AfCFTA	African Continental Free Trade Area
AfDB	African Development Bank
AFRE	Department of Agricultural, Food and Resource Economics
AGRA	Alliance for a Green Revolution in Africa
ANOVA	Analysis of variance
AOR	Agreement Officer's Representative
APDC	African Project Development Centre
APP	Agricultural Promotion Policy
APRNet	Agricultural Policy Research Network
APTRC	Agriculture Policy Technical Review Committee
ARCN	Agricultural Research Council of Nigeria
ARISEE	African Resilience through Innovations in Soils Ecology and Extension
ASA	Agronomy Society of America
ATA	Agricultural Transformation Agenda
AU	African Union
BIFAD	Board for International Food and Agricultural Development
BR	Biannual Review
CAADP	Comprehensive Africa Agriculture Development Program
CAPI	Computer Assisted Personal Interviewing
CBD	Central Business District
CBO	Community-Based Organization
CEO	Chief Executive Officer
CGIAR	Consultative Group for International Agricultural Research
CLA	Collaboration, Learning and Adaptation
CSSA	Crop Science Society of America
DARDA	Delta State Agric and Rural Dev Agency
DC	District of Columbia
DFID	Department for International Development
DPG	Development Partners Group
DQA	Data Quality Assessment
EatSafe	Evidence and Action Towards Safe, Nutritious Food
EBADEP	Ebonyi State Agricultural Development Programme
EBSU	Ebonyi State University
ERGP	Economic Growth Recovery Plan
EU	European Union
FAO	Food and Agriculture Organization
FCA	Federal Colleges of Agriculture

FCDO	Foreign, Commonwealth & Development Office
FCT	Federal Capital Territory
FDAE	Federal Department of Agricultural Extension
FG	Federal Government
FGD	Focus Group Discussion
FMARD	Federal Ministry of Agriculture and Rural Development
FTF	Feed the Future
FY	Fiscal Year
FUTMINNA	Federal University of Technology Minna
GAO	U.S. Government Accountability Office
GAO	Government Accountability Office
GFSS	Global Food Security Strategy
GHSP	Nigeria General Household Survey Panel
GIZ	Gesellschaft für Internationale Zusammenarbeit
GON	Government of Nigeria
HMA	Honorable Minister of Agriculture
IBBU	Ibrahim Badamasi Babangida University
IFAD	International Fund for Agricultural Development
IFDC	International Fertilizer Development Center
IFPRI	International Food Policy Research Institute
IITA	International Institute of Tropical Agriculture
IPs	Implementing Partners
JSR	Joint Sector Review
KII	Key Informant Interview
KPPG	Key Political Partners Group
LGA	Local Government Area
LSMS	Living Standards Measurement Study
LSMS – ISA	Living Standards Measurement Study - Integrated Surveys
MANR	Ministry of Agriculture and Natural Resources
MDA	Ministries, Departments and Agencies
MDPI	Multidisciplinary Digital Publishing Institute
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation & Learning
MELP	Monitoring, Evaluation & Learning Plan
MSU	Michigan State University
NAAE	Nigerian Association of Agricultural Economists
NABG	Nigeria Agribusiness Group
NAMDA	Niger Agriculture and Mechanization Agency
NAEP	National Agricultural Extension Policy
NAERLS	National Agricultural Extension and Research Liaison Services
NAFN	National Agricultural Foundation of Nigeria
NAPP	Nigerian Agricultural Policy Project
NARIs	National Agricultural Research Institutes
NASC	National Agricultural Seeds Council
NASS	National Assembly
NATIP	Nigeria Agricultural Technology and Innovation Plan
NBS	National Bureau of Statistics
NACC	Nigerian American Chamber of Commerce

NAERLS	National Agricultural Extension and Research Liaison Services
NAPP	Nigerian Agricultural Policy Project
NASC	National Agricultural Seeds Council
NATIP	Nigeria Agricultural Technology and Innovation Plan
NCDs	Non-Communicable Diseases
NDHS	Nigeria Demographic and Health Survey
NEP	National Extension Policy
NESG	Nigerian Economic Summit Group
NGO	Non-Governmental Organization
NHGSFP	National Home-Grown School Feeding Program
NIFST	Nigerian Institute of Food Science and Technology
NIRSAL	Nigerian Incentive-Based Risk Sharing system for Agricultural Lending
NPFS	National Programme for Food Security
NSSP	Nigeria Strategy Support Program
NUIG	National University of Ireland, Galway
OPI	Organizational Performance Index
PCU	Project Coordinating Unit
PIM	Policies, Institutions, and Markets
PIRA	Partnership for Innovative Research in Africa
PIRS	Performance Indicator Reference Sheet
PME	Planning, Monitoring and Evaluation
PRS	Planning, Research & Statistics
R4D	Results for Development
RIAPA	Rural Investment and Policy Analysis
RFI	Radio France International
SAM	Social Accounting Matrix
SERVICOM	Service Compact
TWG	Technical Working Group
UAM	University of Agriculture, Makurdi
UK	United Kingdom
UN	United Nations
US	United States
USAID	United States Agency for International Development
USG	United States Government
WFP	World Food Programme
YISA	Youth Initiative for Sustainable Agriculture

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1. PROGRAM OVERVIEW / SUMMARY

Program Name:	Feed the Future Nigeria Agricultural Policy Project
Activity Start Date and End Date:	July 1, 2015 – December 31, 2020
Name of Prime Implementing: Partner:	Michigan State University (MSU)
[Contract/Agreement] Number:	AID-620-LA-15-00001
Name of Subcontractors/Sub-awardees:	International Food Policy Research Institute (IFPRI)
Major Counterpart Organizations:	Federal Ministry of Agriculture and Rural Development (FMARD)
Geographic Coverage (cities and or countries):	Nigeria
Reporting Period:	October 1, 2019 – September 30, 2020
Project personnel mentioned in this report and their project role:	Dr. Saweda Liverpool-Tasie (Principal Investigator, MSU) Dr. Kwaw Andam (Chief of Party, IFPRI) Dr. Bedru Balana (Research Fellow, IFPRI) Mr. Hyacinth Edeh (Country Program Manager, IFPRI) Dr. Mulubrhan Amare (Associate Research Fellow, IFPRI) Dr. Suresh Babu (Senior Research Fellow, IFPRI) Dr. Olivier Ecker (Senior Research Fellow, IFPRI) Mr. Steve Longabaugh (Specialist, MSU) Dr. Michael Olabisi (Assistant Professor, MSU) Dr. Tom Reardon (Distinguished Professor, MSU) Dr. Laura Schmitt Olabisi (Associate Professor, MSU) Dr. Hiroyuki Takeshima (Senior Research Fellow, IFPRI) Dr. Oyinkan Tasie (Assistant Professor, MSU) Dr. Todd Benson (Senior Research Fellow, IFPRI)

This progress report summarizes the key activities undertaken by the Feed the Future Nigeria Agricultural Policy Project for the fourth quarter (October 1, 2019 - September 30, 2020) of fiscal year 2020. The report also serves as the annual report on key activities undertaken during Year 5 (October 2019 – September 2020).

1.1 Summary of Project Indictor Results to Date (Y5)

Below are the results obtained during the fourth quarter of FY 2020 for each indicator showing progress made in contributing to the FY 2020 target.

Table 1: Quarter 4 Progress actuals against Fiscal Year (FY) 2020 targets

Project Indicator Title	Baseline Data	Project Annual Target	Project Annual Actual at Q1 + Q2+Q3+ Q4	Comment If yearly actual is 10% more or less than target	Annual Performance Achieved to End of Reporting Period (%)	Project Target[1]	Project Actual[2]	LOP Performance achievement (%)
1. Number of high-quality research reports published having undergone peer review (internal/external) and disaggregated by type (working papers and journal articles) (Annex A). Custom Indicator	N/A	12	23	This increase came about due to publication of additional research papers from project scholars.	191	55	92	167

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[1] Project Target: These are numbers or percentages targeted for each indicator from Y1 – Y5 i.e. (Y1+Y2+Y3+Y4+Y5). It is important to note that some of the project indicators have been changed over the years, where some indicators were being dropped some were added in year 3 (indicator 6, 7&8 and Year 4 (indicator 3). This accounts for the significant increase in the target set for Y4.

[2] Project Actual: These are the actual numbers achieved for each indicator from Y1- Y5 i.e. (Y1+Y2+Y3+Y4 + Y5). Actual data for indicators 6, 7 & 8 are from Y3, Y4 & Y5 while actual data for indicator 3 is from Y4 which is an annual indicator.

Project Indicator Title	Baseline Data	Project Annual Target	Project Annual Actual at Q1 + Q2+Q3+ Q4	Comment If yearly actual is 10% more or less than target	Annual Performance Achieved to End of Reporting Period (%)	Project Target[1]	Project Actual[2]	LOP Performance achievement (%)
2. Number of participants attending project organized research and policy events. (Annex B). Custom Indicator	N/A	673	12, 971	The increase was due to the change from in-person to webinars occasioned by the COVID-19 pandemic. The webinar events allowed for larger participation particularly where events address contemporary issues like the COVID-19 pandemic and its associated impacts. Hence, the increase in the annual actual values.	1,927	4356	17,195	394
3. Number of agricultural and nutritional enabling environment policies analyzed, consulted on, drafted or revised, approved and implemented with USG assistance	N/A	2	2		100	2	2	100

Project Indicator Title	Baseline Data	Project Annual Target	Project Annual Actual at Q1 + Q2+Q3+ Q4	Comment If yearly actual is 10% more or less than target	Annual Performance Achieved to End of Reporting Period (%)	Project Target[1]	Project Actual[2]	LOP Performance achievement (%)
Custom Indicator								
4. Number of individuals participating in USG food security programs. (Annex C) Standard Feed the Future (FTF) Indicator EG.3.2	N/A	842	807		95.84	5,639	5,300	94
5. Number of individuals who have received USG supported degree-granting non-nutrition-related food security training. (Annex D). Standard FTF EG.3.2-2	N/A	0	3			13	13	100
6. Percent of USG-assisted organizations with improved performance	N/A	12	8	The project target for this indicator was overly ambitious. In addition, the COVID-19 affected the project engagement with his	66	63	15	23

Project Indicator Title	Baseline Data	Project Annual Target	Project Annual Actual at Q1 + Q2+Q3+ Q4	Comment If yearly actual is 10% more or less than target	Annual Performance Achieved to End of Reporting Period (%)	Project Target[1]	Project Actual[2]	LOP Performance achievement (%)
Standard FTF indicator 3.2-29				stakeholders during the reporting period.				
7. Number of agriculture policy communications developed and/or written for stakeholder consumption disaggregated by: Type of communication (policy brief, newspaper article, white paper, radio program, television program), main stakeholder group targeted (Government of Nigeria (GON), private sector, civil society), and Lead in policy communication developed or written: GON, USG, private	N/A	18	17		94	83	130	156

Project Indicator Title	Baseline Data	Project Annual Target	Project Annual Actual at Q1 + Q2+Q3+ Q4	Comment If yearly actual is 10% more or less than target	Annual Performance Achieved to End of Reporting Period (%)	Project Target[1]	Project Actual[2]	LOP Performance achievement (%)
sector, civil society. (Annex F). Custom Indicator								
8. Number of public private advocacy dialogues focused on policy that supports private sector investment. Custom Indicator	N/A	2	0	The COVID-19 safety measures such as restrictions affected the planned engagement with the project stakeholders during the reporting period.	0	12	7	58
9. Index (or scorecard) of quality of agriculture and food security policy processes in Nigeria, as measured by stakeholder evaluation to capture level of satisfaction and confidence. Custom Indicator	1.206	20% point positive change	Semi Annual Indicator Biennial indicator		Semi Annual Indicator Biennial indicator	30% positive change from baseline result	1.44	
10. Index (or scorecard) of quality of the institutional architecture for	1.342	20% point positive change	Semi Annual Indicator Biennial indicator		Semi Annual Indicator Biennial indicator	30% positive change from	1.74	

Project Indicator Title	Baseline Data	Project Annual Target	Project Annual Actual at Q1 + Q2+Q3+ Q4	Comment If yearly actual is 10% more or less than target	Annual Performance Achieved to End of Reporting Period (%)	Project Target[1]	Project Actual[2]	LOP Performance achievement (%)
agriculture and food security policy processes in Nigeria, as measured by stakeholder evaluation survey to capture level of satisfaction and confidence.

Custom Indicator | | | | | | baseline result | | |

2. ACTIVITY IMPLEMENTATION PROGRESS

2.1 Progress Narrative

This report highlights the achievements and progress made in the implementation of the Feed the Future Nigeria Agricultural Policy Project (NAPP) Year 5 revised workplan. The project is completing activities and close-out tasks throughout the quarter ending December 31, 2020. This is in line with the no-cost extension granted the project until the indicated period on April 29, 2020. The main purpose of the extension is to complete and document achievements against planned activities. During this extension period, the project is also exploring effective mechanisms to meet new demands in the areas of analyzing COVID-19 impacts and supporting development of appropriate policies to mitigate impacts, food and nutrition security (including food safety), trade policies and restrictions, agricultural input policies, value chain development and the climate change discourse through a future follow-on activity. Building on the impacts of the current activity (through evidence-based researches in these areas to influence agricultural policy formulation, implementation, and evaluation and the effective stakeholders' capacity building) will foster Nigeria's path to self-reliance. Following this extension, the project is providing evidence-based technical support to its stakeholders particularly the federal and state governments to influence agricultural policy formulation, implementation, and evaluation and the effective stakeholders' capacity building.

In Year 5, the project activities witnessed significant disruptions occasioned by the COVID-19 pandemic and policies adopted to slow the spread of the pandemic. These disruptions were evident between quarters 2 and 4 of Year 5, and were due mainly to movement restrictions and cancellation of in-person meetings and events within the country. However, in the face of the COVID-19 pandemic and its related disruptions, the project continues to achieve significant results. During the peak periods of the pandemic, the project adopted digital technology to maintain communications with partners and stakeholders, and continued with several activities to minimize the inevitable disruptions so that the project and its partners could continue to achieve the set objectives. As the government eased the restrictions particularly towards the end of the fourth quarter, the project commenced the gradual reopening of the physical office for its operations following the laid down COVID-19 safety guidelines and protocols from the Federal Government. During the fourth quarter, the project held a few in-person trainings, workshops and meetings with strong adherence to the COVID-19 safety measures. However, for large gatherings, NAPP adopted digital technology to engage with its stakeholders on project activities.

The Year 5 work plan consists of three main project components: 1) Enhancing national agriculture and food security policy capacity; 2) Policy – driven collaborative research and analysis; and 3) Strengthening evidence-based policy process and promoting impact through dialogue, engagement and outreach strategy.

Component 1: A Strategy for Enhancing National Agriculture and Food Security Policy Capacity

1. Capacity building through training courses

In Year 5, capacity-building activities for the project's targeted beneficiaries continue to be demand-driven. The project has received capacity-building demands from its targeted beneficiaries during the development of the Year 5 workplan and these demands form the basis for the organized trainings

during the period under review. Following the COVID-19 pandemic during most part of Year 5, the project continued to adopt various e-platforms to deliver the trainings that took place, particularly from Q2 through Q4. Prior to the outbreak of the COVID-19 pandemic in Nigeria in late March 2020, the project delivered several in-person trainings, including trainings on "Nigeria Agricultural Policies and Strategies", "Agricultural Policy Formulation, Presentation and Analysis", "Survey Design and Implementation", "Introduction to Policy Communication" "Monitoring, Evaluation and Learning (MEL)", "Data Analysis using R Statistical Software" and "Best Practices for Maize Production and Handling". During the pandemic, the project successfully delivered several trainings including "Concepts of Monitoring and Evaluation", "Policy Brief writing", "Policy Communications", "Gap Analysis and Investment Plan Development in Agricultural Extension Service Delivery" and "Organizational Performance Tracking and Goal setting" using digital technology.

However, there were a few in-person events during the period under review particularly with the easing of the associated COVID-19 restrictions in Q4. The project continues to support its stakeholders and mentor previous beneficiaries by engaging them in trainings for new beneficiaries and to develop various outputs based on previous trainings received. This approach helps in strengthening of capacity needs and addressing the sustainability of the project activities beyond the life of the project. The major activities undertaken in Q4 under Component 1 are summarized in Table 2.

Capacity strengthening through the scholars' program

Table 2: Indicator #4. Number of individuals participating in USG food security programs

Fourth Quarter (July – September 2020)							
Date	Location	Topic	Participants				
			Type	Male	Female	15-29	30+
1.1 National Trainings 1.1.1 National Capacity Building and Mentoring Activities							
July 21, 28 & August 12, 2020	Virtual	CAPI-Based technical training of enumerators on Phone Survey Management and Administration	Enumerators	13	10	4	19
September 1, 2020	Virtual	Organizational Performance Tracking and Goal setting.	Government	16	6	0	22
September 2 – 4, 2020	Virtual	Monitoring and Evaluation Training	Government	12	14	0	26
September 8 – 9, 2020	PCU Office, Abuja	African Continental Free Trade Area: Institutional roles and emerging challenges	Government	23	7	1	29

Fourth Quarter (July – September 2020)							
Date	**Location**	**Topic**	**Participants**				
			Type	**Male**	**Female**	**15-29**	**30+**
September 28 – 30, 2020	Virtual	Monitoring and Evaluation Training	Government	19	16	0	35
1.2. State trainings and capacity building efforts							
Fourth Quarter							
July 6, 2020	Virtual	Policy Brief writing	Government	16	3	0	19
September 16 – 17, 2020	Virtual	Policy Communication Training to Journalist	Media	5	6	0	11

Third Quarter (April – June 2020)							
Date	**Location**	**Topic**	**Participants**				
			Type	**Male**	**Female**	**15-29**	**30+**
1.1 National Trainings **1.1.1 National Capacity Building and Mentoring Activities**							
June 2, 2020	Virtual	Organizational Performance Tracking and Goal setting.	Government; Private Sector; CSO; Media	11	2	1	12
1.2. State trainings and capacity building efforts							
Third Quarter							
June 22, 2020	Virtual	Gap Analysis and Investment Plan Development in Agricultural Extension Service Delivery	Government	12	1	0	13

Second Quarter (January – March 2020)							
Date	**Location**	**Topic**	**Participants**				
			Type	**Male**	**Female**	**15-29**	**30+**
1.1 FMARD/National Trainings **1.1.1 FMARD/National Capacity Building and Mentoring Activities**							
February 17 – 18, 2020	FADAMA House, Abuja	Survey Design and Management	FMARD	18	6	0	24
February 27 – 28, 2020	IFDC Conference Room Abuja	Nigeria Agricultural Policies and Strategies	Media (NASS Press)	9	4	0	13

Date	Location	Topic	Participants				
			Type	Male	Female	15-29	30+
1.1.2 Universities							
January 15 – 17, 2020	Federal University of Technology, Minna, Niger State	Introduction to Monitoring, Evaluation and Learning	Academia	19	6	0	25
January 15 – 16, 2020	University of Calabar, Cross River State	Survey Design and Management	Academia	24	2	0	26
January 27-31, 2020	Ebonyi State University	Training Workshop on R	Academia	17	6	0	23
February 17-21, 2020	Ibrahim Badamasi Babangida (IBB) University, LAPAI, Niger State	Training Workshop On R	Research and academic	22	3	0	25
March 17-21, 2020	Ahmadu Bello University, Zaria	Training Workshop On R	Research and academic	18	3	1	20
March 18 – 20, 2020	Delta State University, Asaba, Delta State	Introduction to Monitoring, Evaluation and Learning	Academia	16	7	0	23
1.2. State trainings and capacity building efforts							
January 13 -14, 2020	State Ministry of Agriculture and Natural Resources, Calabar, Cross River State	Survey Design and Management	State Ministry of Agriculture	16	9	0	25
January 16 – 17, 2020	State Ministry of Agriculture and Natural Resources, Abakaliki, Ebonyi State	Agricultural Policy Formulation, Presentation and Analysis	State Ministry of Agriculture	16	15	0	31

Date	Location	Topic	Participants				
			Type	Male	Female	15-29	30+
January 20-24, 2020	Ministry of Agriculture, Abakaliki, Ebonyi State.	R Training for staff of Ministry of Agriculture	Government sector	14	4	0	18
January 21 – 23, 2020	Ministry of Agriculture and Natural Resources, Asaba, Delta State	Introduction to Monitoring, Evaluation and Learning	State Ministry of Agriculture	21	6	0	27
January 21 – 22, 2020	Ministry of Agriculture, and Natural Resources, Makurdi Benue State	Nigeria Agricultural Policies and Strategies	State Ministry of Agriculture	17	9	0	26
January 27-28, 2020	State Ministry of Agriculture and Rural Development, Mina, Niger State Secretariat	Nigeria agricultural project policy (NAPP) maize management dissemination training programme	Government sector (27), Civil Society (22)	40	10	16	34
January 30-31, 2020	Federal Ministry of Agriculture, Makurdi	Aflatoxin Training for Dissemination in Benue State	Government Sector (18), Research and Academic organizations (6)	7	17		24
February 5 – 6, 2020	Ministry of Agriculture, and Forestry, Kaduna State	Nigeria Agricultural Policies and Strategies	State Ministry of Agriculture	17	8	2	23
February 11 – 12, 2020	Asaba, Delta State	Policy Communication Training	Journalist	15	5	0	20
February 24-28, 2020.	Ministry of Agriculture and Natural Resources Minna, Niger State	Training Workshop On R	Government sector (24)	19	5	0	24

Activity 1.3: Nigerian Graduate Student Capacity Building
Please note that all of the Capacity Building/Trainings that the Scholars provided are recorded in 1.1.2 and 1.2

First Quarter (October – December 2019)							
Date	**Location**	**Topic**	**Participants**				
			Type	**Male**	**Female**	**15-29**	**30+**
1.1 FMARD/National Trainings							
1.1.1 FMARD/National Capacity Building and Mentoring Activities							
November 18 – 20, 2019	FADAMA House, Abuja	Introduction to Monitoring, Evaluation and Learning	Government (FMARD)	15	9	1	23
December 11-13, 2019	FADAMA House, Abuja	Introduction to Monitoring, Evaluation and Learning	Government (FMARD)	6	21	0	27
1.1.2 Universities							
November 25 - 26, 2019	Kebbi State College of Agriculture, Zuru	Training on Nigeria Agricultural Policies and Strategies	Academia	21	1	0	22
November 27 – 29, 2019	University of Agriculture, Makurdi, Benue State	Introduction to Monitoring, Evaluation and Learning	Academia	17	6	0	23
1.2. State trainings and capacity building efforts							
November 28 – 29, 2019	Kebbi State Ministry of Agriculture, Kebbi State	Training on Nigeria Agricultural Policies and Strategies	State Ministry of Agriculture	20	1	0	21
Activity 1.3: Nigerian Graduate Student Capacity Building							
November 26-27, 2019	Abeokuta, Ogun State i	Training for community dissemination on maize handling practices to Reduce Aflatoxin contamination	Civil society	18	4	17	5
December 17 – 18, 2019	Abakaliki, Ebonyi State	Training for community dissemination on maize handling practices to Reduce Aflatoxin contamination	Ebonyi State University and Ebonyi State Agricultural Development Program	17	9	13	13

Activity 1.1 FMARD/National Trainings

1.1.1 FMARD/National Capacity Building and Mentoring Activities

Fourth Quarter (July – September 2020)
In response to the ravaging COVID-19 pandemic, the project embarked on a research on the "impacts of coronavirus on rural households in Nigeria" to provide policy makers with evidence-based research outputs to inform decision making. During this time, the project hired and trained 23 enumerators (13 males, 10 females) on the concepts of phone survey management and administration. The training was aimed at equipping field personnel with requisite knowledge on implementation of phone survey in addition to understanding the contents, wording and expectations of the survey instrument. The training was divided into administrative, language and technical sessions. The administrative session which took place on the 28th July 2020 included facilitation skills on phone, proper introduction to the respondents before the administration of the questionnaire and review of the questionnaire. The project walked enumerators through the questionnaire and the options for each question, ensuring that enumerators have sound understanding of each question and their associated options. The training was critical in ensuring uniformity across enumerators and in promoting accurate data capture in the field. On the 3rd of August 2020, there was a language session of the training in plenary. This ensured that enumerators have first-hand understanding of contents, wordings and interpretation of questionnaire in local languages for better communication with the respondents. Furthermore, the project had a CAPI-based technical training for the enumerators on the 12th August 2020. The training allowed enumerators to have hands-on experience on the use of electronic device for data collection under a phone survey scenario. During the training, enumerators learned how to effectively use various tools and methodologies to minimize data quality issues.

At the completion of the trainings, the NAPP carried out a pretesting of the survey instruments on selected respondents across the survey focus states. This was to test and validate the survey instruments and data collection procedures before the actual survey was rolled out. The outputs of the pretesting helped in modifying/updating the survey instruments. The output of the study is expected to guide post-COVID-19 policy decisions at both State and Federal Government levels.

In line with its strategies and goals, the project continues to assist stakeholders to improve on their performance and service delivery. On the September 1, 2020, the NAPP delivered a virtual workshop on "Organizational Performance Tracking and Goal Setting" to 22 (16 males, 6 females) staff members of the Agricultural Research Council of Nigeria (ARCN), who are mostly in senior positions in the Council. The NAPP adopted the Organization Performance Index (OPI) Measurement Tool in facilitating the training. The training was aimed at guiding stakeholders to monitor organizational progress against set goals using the OPI tool. The training walked participants through the various domains in the OPI tool, including effectiveness and efficiency, for tracking almost immediate performance, and relevance and sustainability for tracking long-term performance. Participants were also encouraged to develop essential tools such as work plans, strategic plans, and Monitoring, Evaluation and Learning (MEL) plans, among others. As a next step, they were requested to assess and share with the NAPP team their organizations' performance level across the different OPI domains. The training is expected to help organizations understand more specifically USAID-based OPI measurement tool and its uses, to set, track and improve on their organizational performance goals. Adopting and operationalizing the tool is expected to help improve performance and accountability of targeted institutions in line with the USAID goal of enhancing the performance of its project stakeholders.

In response to the demand from the management of the Agricultural Research Council of Nigeria (ARCN), the project organized Monitoring and Evaluation (M&E) trainings for a total of 61 staff members of the institution. The participants were trained in two batches for effective learning and manageable class size.

The NAPP delivered a 3 – day virtual training on Monitoring and Evaluation (M&E) to the staff of Agricultural Research Council of Nigeria (ARCN) and its national agricultural research institutes (NARIs) and the Federal Colleges of Agriculture (FCAs) between 2 – 4 September 2020. The training had 26 participants in attendance including 14 females and 12 males. The training was jointly facilitated with staff of ARCN and the National Agricultural Seed Council (NASC), both of whom had previously benefited from such project's-organized trainings and led the development of MEL plan for their institutions. The involvement of previously trained beneficiaries is part of efforts by the project to support and strengthen the sustainability of M&E activities after the exit of the NAPP. The training highlighted the concepts of M&E and various steps involved in the M&E system. Specifically, the training focused on development hypothesis, data collection and management, the development of result and logical frameworks, and the development of Performance Indicator Reference Sheet (PIRS). The training was facilitated in a style with evidence-based examples to assist the targeted beneficiaries improve on their understanding of the subject-matter. The knowledge imparted to the participants is expected to lead to an improved service delivery in their respective institutions. Also, an efficient research institute can assist in driving evidence-based collaborative research to support both federal and state governments agricultural policy formulation and improve food security in Nigeria. Improving the capacity of these national agricultural institutions is in line with the USAID support to improving the performance of its project stakeholders.

Furthermore, on the 28 – 30th of September 2020, the project replicated the Monitoring and Evaluation training to another set of 35 participants (19 males and 16 females) from Agricultural Research Council of Nigeria (ARCN) and its National Agricultural Research Institutes (NARIs) and the Federal Colleges of Agriculture (FCAs) who were not privileged to attend the previous M&E training alongside their peers.

On the 8th and 9th of September 2020, with 30 participants in attendance including 7 females and 23 males, the project delivered a 2 – day training on African Continental Free Trade Area (AfCFTA) to senior staff members of the FMARD and the National Agricultural Extension and Research Liaison Services (NAERLS). The training aimed at improving FMARD understanding of the AfCFTA concepts and roles of public institutions such as FMARD towards its implementation, particularly in the agricultural sector and strategies to mitigate emerging challenges. The training elaborated on the objective of AfCFTA, which is to create a single continental market for goods and services, with free movement of business, persons and investments, and thus pave the way for accelerating the establishment of the Customs Union. The training also highlighted the implications of AfCFTA membership in Nigeria. The participants learned that the objectives did not speak directly to revenue generation. Participants also learned that trade expansion is very important, and regional integration is monumental for economic development and stability. There was in-depth discussion of the industrial competitiveness which is the first role of customs. One of the major challenges highlighted was that goods are not manufactured in Nigeria, rather imported from overseas. For example, the volume of tradable commodities moving from Nigeria to other African countries courtesy of Nigerian traders stands at only 4% while 96% are imported from the Asia, Europe, and America. There was a recommendation for government of Nigeria to convey a strategic meeting with traders and exporters to handhold Nigerian products to the shelves all around Africa.

Third Quarter (April – June 2020)

During the quarter, the project continues to assist stakeholders to improve on their performance and service delivery. On 2 June 2020, the Nigeria Agricultural Policy Project delivered a virtual workshop on "Organizational Performance Tracking and Goal Setting". The workshop was aimed at guiding stakeholders to monitor organizational progress against set goals using the OPI tool. It is expected to help organizations understand more specifically USAID-based OPI measurement tool and its use to set, track and improve on their organizational performance goals. Adopting and operationalizing the tool is expected to help improve performance and accountability of targeted institutions in line with the USAID goal of enhancing the performance of its project stakeholders.

The workshop had in attendance 13 participants (2 females and 11 males) from public and private organizations actively involved in the Nigeria agriculture space. Specifically, the National Agricultural Seed Council (NASC), Agricultural Research Council of Nigeria (ARCN), Projects Coordinating Unit (PCU) and Nutrition Division were FMARD institutions represented during the workshop. The state-level participants came from the Benue State Ministry of Agriculture and Natural Resources while the New Telegraph came in for the Media stakeholders. The Non-Governmental Organizations (NGOs) were represented by Agropace International Foundation and the Youth Initiative for Sustainable Agriculture (YISA) while Ijeoma Farmers Multipurpose Cooperative Society participated under the Community-Based Organizations (CBOs) category.

Vital information communicated to participants were the various domains in the OPI tool, including effectiveness and efficiency, for tracking almost immediate performance, and relevance and sustainability for tracking long-term performance. Participants were also encouraged to develop essential tools such as work plans, strategic plans, and Monitoring, Evaluation and Learning (MEL) plans, among others. As a next step, they were requested to assess and share with the NAPP team their organizations' performance level across the different OPI domains. The NAPP team plans to work with these participants to continuously track performance progress and provide guidance where necessary.

On 22 June 2020, the project delivered a training workshop on "Gap Analysis and Investment Plan Development for State-level Agricultural Extension Service Delivery in Nigeria". The training, delivered virtually, had 13 participants (12 male and 1 female). The workshop was aimed at engaging state-level stakeholders to document issues, challenges, constraints, potential solutions, and opportunities in implementing national extension policies (NEPs) at the state level using Kebbi State as a case study. This workshop is the first in the series of the multi-stakeholder consultation process for the development of effective and efficient extension service delivery in Kebbi State.

Second Quarter (January – March 2020)

In line with the project strategies and goal, the project continues to assist stakeholders to improve on their performance and service delivery. This was demonstrated on February 17 – 18, 2020 when the project strengthened the capacity of staff of FMARD on statistical data collection through capacity building training on survey design and management. Segun Fadare and Oyeyemi Motunrayo, project Research Analysts, facilitated the 2-day training. In attendance were 24 participants including 18 males and 6 females who learned about the various steps involved in planning, implementation and management of statistical survey. The training features sampling techniques, questionnaire design, data collection process with strong emphasis on data auditing and quality standards at every stage of data

collection. The participants also learned about preliminary data cleaning procedures. Generally, the training exposed participants to methods to effectively coordinate survey data collection. The lessons learned are now been utilized to make decisions on data needs and use as exemplified in the follow-on request for further project support in management of Fisheries Statistics and Data Management in Nigeria by the Federal Department of Fisheries through Mrs. I. P. Okonji (Assistant director) and Mr. Ibrahim Bako (Chief fisheries officer), both beneficiaries of the capacity building activity.

The project extended its capacity building training on the Nigeria Agricultural Policies and Strategies to the National Assembly press who are remarkably important stakeholders in policy formulation and dissemination in Nigeria. The training held in Abuja between February 27 – 28, 2020 and had 13 journalists including 9 males and 4 females in attendance. Ogunniyi Adebayo, project Research Analyst and Crystal Aghadi, a postgraduate intern with IFPRI from University of Nairobi jointly facilitated the training. Participants were taken through the key features, achievements and challenges of the past and present agricultural policies in Nigeria including Agricultural Transformation Agenda (ATA), Agricultural Promotion Policy (APP) and Economic Recovery and Growth Plan (ERGP) and the expectations of present agricultural policies being implemented. Also discussed are the regional (Africa) agricultural policies including Comprehensive Africa Agriculture Development Programme (CAADP). It is expected that the knowledge gained during the training will assist the participants to have better understanding of national and regional policies and promote evidence-based reportage necessary to influence policy making, implementation and accountability. The journalists appreciated the project for the well-delivered training. They promised to enlighten the citizens, based on data evidence, on the existing agricultural policies and encourage them to hold the office holders accountable using the press as a tool.

First Quarter (October – December 2019)
In line with the project's strategies for the year under review, the project is committed to supporting the FMARD to improve on effectiveness and efficiency. This was demonstrated between November 18 – 20, 2019, when the project delivered a training course on Monitoring, Evaluation and Learning (MEL) to 24 staff members (15 male, 9 female) of the FMARD in Abuja. The MEL training, anchored by the project's M&E Assistant, Tunji Fasoranti and an FMARD staff, Dr. Gabriel Malomo, who had previously benefited from such project's-organized training was comprehensive and met the expectation of participants.

Following this successful delivery of the training, the FMARD management through the Ministry's Project Coordinating Unit (PCU) requested for a similar MEL training for other staff of FMARD, including the staff of the proposed Nutrition Department and the National Programme on Food Security (NPFS). The project organized this additional training between December 11 – 13, 2019 with 27 participants (6 male, 21 female) in attendance. The training was facilitated by the project's M&E Assistant, Tunji Fasoranti and five FMARD staff members who previously attended similar trainings. These staff members were Dr. Gabriel Malomo, Onaolapo Omolola Mary, Akan Uteh, Obasi Chinonso, and Emeka Onwuchekwa. The training exposed participants to the various steps involved in the M&E system and basic concepts of MEL. Specifically, the training focused on development hypothesis, data collection and management, the development of result and logical frameworks, and preparation of performance indicator reference sheet. The trainings were also facilitated in a style with evidence-based examples to assist staff of the FMARD improve on their understanding of the subject-matter. The knowledge imparted to the participants is expected to lead to improved implementation of agricultural policies with significant positive effects on food and nutrition security in Nigeria.

1.1.2 National Trainings (universities, think tanks, research institutions, CBO's NGOs, farmer groups)

Fourth Quarter (July – September 2020)

During the quarter, the project could not carry out any capacity building activity with this category of stakeholder due to the combined challenges posed by the COVID-19 pandemic and the strike action embarked upon by the Academic Staff Union of Nigeria Universities (ASUU) since eight (8) months now. These situations have continued to make the relevant stakeholders unavailable for any of the project's activities.

Third Quarter (April – June 2020)

During the quarter under review, planned activities with targeted stakeholders were cancelled in line with the federal and state guidelines associated with COVID-19 pandemic and also due to the closure of Nigerian universities occasioned by the strike action embarked upon by the Academic Staff Union of Universities (ASUU). Although the President, Association of Deans of Agriculture in Nigeria (ADAN) had accepted the proposal by the project to conduct planned activities through various e-platforms, the strike action hampered the implementation. For instance, the planned follow-up training on Monitoring, Evaluation and Learning for staff members of the University of Agriculture, Makurdi could not hold even after several conversations with the Dean, faculty of agriculture through the ADAN President.

Second Quarter ((January – March 2020)

On January 15 – 17 2020, the project delivered a training course on Monitoring, Evaluation and Learning (MEL) to 25 staff members (19 males, 6 females) of the Federal University of Technology, Minna, Niger State. The MEL training was anchored by the project's M&E Officer, Tunji Fasoranti and an FMARD staff, Omolola Onoolapo Mary, who had previously benefited from such project's-organized training. The training highlighted the concepts of MEL and various steps involved in the MEL system. Specifically, the training focused on development hypothesis, data collection and management, the development of result and logical frameworks, and the development of Performance Indicator Reference Sheet (PIRS). The training was facilitated in a style with evidence-based examples to assist the targeted beneficiaries improve on their understanding of the subject-matter. The knowledge imparted to the participants is expected to lead to an improved implementation and monitoring of academic and research works in the participating institutions. Also, an efficient academic institution can assist in driving evidence-based collaborative research to support both federal and state government agricultural policy formulation and improve food security in Nigeria.

In line with the project goal, a total of 26 (24 males and 2 females) staff of University of Calabar, Cross River State were trained on Survey Design and Management. The training, which held on January 15 – 16, 2020, introduced participants to the various steps involved in planning, implementation and management of statistical surveys. This training featured sampling techniques, questionnaire design, data collection process with strong emphasis on data auditing and quality standards at every stage of data collection. Participants also learned about the preliminary data cleaning procedures for further data analysis. Generally, the training exposed participants to methods to effectively coordinate survey data collection. Overall, the training is expected to help improve the data system particularly the quality of data collection for evidence-based analysis. The participants appreciated the project for such an elaborate training which was practical and relevant to their job descriptions. They acknowledged that

the training was worth their time and confirmed that they will apply their new skillsets in their future activities on statistical surveys.

From January 27-31, 2020, the project organized a training on Data analysis using "R" statistical software at Ebonyi State University in Ebonyi State. The 5-day training for 25 (17 males and 6 females) was led by project scholars who had been trained and mentored on the program by the project. The training was divided into six (6) labs to cover several topics including a statistical refresher, data management techniques in R and regression analysis in R. A typical training day included a presentation, followed by practice sessions where participants worked on different codes and syntaxes introduced to them. The trainers provided on the spot support for participants with challenges during the practice sessions. Assessment of participants was done using quizzes to measure the understanding of the concepts and competence with the new skills acquired. A WhatsApp group was also created to provide a platform for the facilitating NAPP scholars to continue mentoring the participants as they apply their new skills in their respective research endeavors. Participants expressed their joy and gratitude for the training on the unique Free and Open Source Software, adding that the skills acquired will go a long way in improving their professional careers in the ever-changing technological world of today. Some participants solicited a second training session for their group of participants in the future.

The project also organized another training on Data Analysis using "R" Statistical Software at Ibrahim Badamasi Babangida (IBB) University, LAPAI, Niger State. The training attended by 25 academics (22 males and 3 females) took place between February 17-21. The trainers were: Dr. Charles Olumba, Mrs. Hephzibah Obekpa and Mrs. Balaraba Sule (all three were project scholars, trained at Michigan State University under the NAPP Visiting Scholar Program). The participants were from four universities: IBBU, Lapai, the Federal University of Technology Minna, the Nasarawa State University, Keffi, and the University of Ilorin in Kwara State, all in the North Central zone of Nigeria. Each day, the training began with a presentation from a one of the trainers. This was followed by practical hands-on sessions in which participants utilized the different syntaxes they were introduced to. The training concluded with group presentations of the results of the analysis carried out by the participants using their newly acquired knowledge in R. Appreciating the need for continued interaction between the facilitators and the participants, a WhatsApp group was also formed. The platform is expected to serve as an avenue to discuss participants' challenges and provide further assistance as they explore data analysis with their newly gained competences in R. This training approach, through which Nigerian scholars are trained and mentored to be able to train others, demonstrates the value that training and mentoring a few scholars intensely can have on other Nigerians. It also demonstrates an approach to sustainably train Nigerian scholars and State Ministry workers by fellow Nigerians.

From March 17-21, the project organized a third training on Data Analysis using "R" Statistical Software at Ahmadu Bello University, Zaria. This training for 21 academics (18 male and 3 females) was led by project scholars (Dr. Charles Olumba, Mrs. Balaraba Sule, Dr. Iveren Agada and Mr. Phillip Hegarty). Similar to the other trainings for academia, the 5-day training composed of the training sessions, complemented with practical hands-on sessions for participants to practice the syntaxes they had been introduced to during the training sessions. Participants were assessed during the program and each participant was part of a group that made a presentation to the class (on the final day) applying the skills learned during the training. Despite rising concerns about the corona virus during the week of training, all participants completed the training and expressed appreciation to the team

for the training. The training is expected to help improve the data analysis skills of the trainees in the absence of cost concerns for proprietary software.

The project organized a Monitoring, Evaluation and Learning training for staff of Delta State University between March 18 – 20, 2020 and the training had 23 (16 males and 7 females) high profiled lecturers in attendance. The training was participatory and took participants through the basic concepts of M&E with emphasis on the development of frameworks and M&E plans as they relate to improved service delivery in the academic sector, which was the goal of the training. There were breakout sessions where participants had hands-on practical exposure to the development of frameworks with technical assistance from the facilitators. The results were afterwards presented in plenary and feedbacks/corrections were given on each presentation. The facilitators further emphasized the importance of teamwork in the group assignment as it promotes effective synergy in achieving organization goals. Irrespective of the participants' academic qualifications/status, they all participated fully and found the training very useful and helpful for their academic and research activities. Many of them acknowledged that the new knowledge and skills acquired will enhance their on the job performance.

First Quarter (October – December 2019)

On 25th – 26th November 2019, the project delivered a training course on Nigeria Agricultural Policies and Strategies to 22 (21 males and 1 female) staff members of the College of Agriculture, Zuru, Kebbi State. The training delved into the pre and post Agricultural Transformation Agenda (ATA) of the Goodluck Jonathan administration (2010-2015) with emphasis on the agricultural policy and strategies of the present administration of President Muhammadu Buhari (2015- present): the Agriculture Promotion Policy (APP) and the Economic Recovery and Growth Plan (ERGP). The training specifically highlighted key features, achievements and challenges of past policies, and the features and expectations of present agricultural policies being implemented. The trainers also reviewed the Regional Agricultural Policies especially the Comprehensive Africa Agriculture Development Programme (CAADP). Participants affirmed that the training was worthwhile as they learned about the contemporary agricultural related policy issues and were equipped with adequate knowledge to better perform in their teaching and research-related duties.

Staff members of Federal University of Agriculture, Makurdi, Benue State and universities within its catchment areas including the Kogi State University, Ayingba, Nasarawa State University, Keffi and Federal University, Wukari, Taraba State benefitted from the M&E training held between 27th – 29th November, 2019. A total of 23 participants (17 males and 6 females) were in attendance. The training was on request of the universities with the understanding that staff members of these institutions have very limited skills to effectively monitor and track the performance/efficiency of academic-related activities in their institutions. The NAPP-facilitated M&E training was intensive and highly participatory with specific focus on resource management, service delivery, data collection, management and presentation for decision making. There were hands-on practical assignments which were managed in groups to ensure effective understanding of the M&E courses and promote teamwork in achieving organizational goals. A generally observed gap among the participants is the familiarity with M&E terminologies without the skillsets for actual practice. The project recognized this and intensified effort towards the processes of actual practice of MEL activities. This is in addition to deepening the participants' knowledge in MEL concepts/terminologies. It is envisaged that with improved MEL skills, beneficiaries can effectively and efficiently implement both academic and non-academic related project activities. Overall, resources are better managed and utilized in the process.

The project achieved this training through a collaborative effort with the Association of Deans of Agriculture in Nigerian Universities (ADAN).

Activity 1.2 State Trainings and Capacity Building Efforts

1.2.1 Nigeria Agricultural Policies and Strategies for Ministry Staff and Academics in the Seven FTF states

Fourth Quarter (July – September 2020)
On the 5th July 2020, the project delivered a training workshop on the methodology of "Policy Brief Writing" to 19 participants including 16 males and 3 females across the Feed the Future (FtF) States Ministry of Agriculture and Nature Resources. The participants included a Commissioner of Agriculture, Permanent Secretaries, Directors, Deputy Directors, Heads of Planning, Research & Statistics (PRSs) and other Senior Experts from the various FtF State ministries of Agriculture and Natural Resources. The workshop was a follow on to a policy brief writing workshop held on June 30, 2020. The workshop was aimed at improving the capacity of officials of the state ministries of agriculture to undertake policy brief writing towards attracting the attention of policy makers and other stakeholders to agricultural issues of relevance in their states. The key topics covered in the seminar included: conceptualizing a Policy Brief (what is it?), the reason for a Policy Brief (Why?), structure of a Policy Brief (how to write?) key features of a good Policy Brief, types of Policy Briefs, and functions of Policy Briefs. The workshop highlighted the standard structure of a policy brief which includes title, executive summary, introduction, body (main texts), policy implications, recommendations and conclusions. Participants also learned that the policy brief should focus on a particular issue, draw evidence from several sources, focus on the findings and build on context-specific findings with conclusions that are more generally applicable. Reading materials, power point presentations and audio records of the seminar were shared to participants.

Third Quarter (April – June 2020)
Taking into account the relevance and importance of Policy Briefs as a communication tool for informing, advocating and influencing policy-decision makers and others interested in the agricultural sector, the project began the virtual delivery of a seminar series on 'Policy Brief Writing' on 30 June 2020. The first virtual seminar was delivered to 11 participants (1 female and 10 males) selected from State Ministries of Agriculture and Natural Resources from the FTF-focused states of Nigeria. Participants included Commissioners, Permanent Secretaries, Directors, Deputy Directors, Heads of Planning, Research & Statistics (PRSs) and other Senior Experts. The key topics covered in the seminar included: conceptualizing a Policy Brief (*what is it*?), the reason for a Policy Brief (*Why*?), structure of a Policy Brief (*how to write?*) key features of a good Policy Brief, types of Policy Briefs, and functions of Policy Briefs. Reading materials, power point presentations and audio records of the seminar were shared to participants.

Second Quarter (January – March 2020)
The project continues to work closely with the State Ministries of Agriculture and Natural Resources in the project-targeted states on skills and techniques that will promote organizational learning and performance. These skills and techniques are expected to impact positively on the agriculture and food sector of the states. In this quarter, several staff members of these Ministries benefited from project organized events including capacity building with the expectation that the skills gained would enhance their job performance. For example, on January 13 – 14, 2020, the project trained staff of the Ministry of Agriculture and Natural Resources, Calabar, Cross River State on Survey Design and Management.

In attendance were 25 participants including 16 males and 9 females who demonstrated excellent understanding of the concept of statistical survey management. Prior to the post training assessment, the trainers took participants through the various steps involved in planning, implementation and management of statistical survey. Key features of the training also included sampling techniques, questionnaire design, data collection process with strong emphasis on data auditing and quality standards at every stage of data collection. Participants also learned about preliminary data cleaning procedures in preparing data for further statistical data analysis. The training exposed the participants to methods to effectively coordinate survey data collection. The post assessment indicated that participants had improved knowledge on survey design and management.

On January 16 – 17, 2020, the staff of the Ministry of Agriculture and Natural Resources, Abakaliki, Ebonyi State benefited from the training on Agricultural Policy Formulation, Presentation and Analysis. Hyacinth Edeh, Country Program Manager, and a consultant (Professor Jonathan Alimba, Ebonyi State University, Abakaliki) facilitated the training in a participatory style to 31 participants (16 males and 15 females). The participants acknowledged that they learned the basic concept of policy formulation, presentation and analysis. Key features of the training module included concept of policy and agricultural policy, pre-conditions for agricultural policy formulation, imperative of agricultural policy objectives, conflicts in agricultural policy objectives, and Nigeria agricultural policy objectives. Others were guiding principles for agricultural and food policy formulation and presentation, techniques for agricultural policy presentation and analysis, and agricultural policy instruments. It is worthy of note that the members of the State agricultural policy review committee (SAPRC) currently reviewing the state agriculture policy document were mainly staff members who participated in the two-day training activity.

Furthermore, on January 21 – 23, 2020, the project also trained 27 staff (21 males, 6 females) of Ministry of Agriculture and Natural Resources, Asaba, Delta State on the concept of Monitoring, Evaluation and Learning. The MEL training was intensive and highly participatory with specific focus on resource management, service delivery, data collection, data management and presentation for decision making. There were hands-on practical assignments which were managed in groups to ensure effective understanding of the MEL courses and promote teamwork in achieving organizational goals. A generally observed gap among the participants is the familiarity with MEL terminologies without the skillsets for actual practice. The project recognized this and intensified effort towards the processes of actual practice of MEL activities. This was in addition to deepening the participants' knowledge in MEL concepts/terminologies. It is envisaged that with improved MEL skills, beneficiaries can effectively and efficiently implement project related activities. As the state is currently developing its agricultural policy document, the skillset gained is expected to help guide the ministry on smart objective setting and implementation. Consequently, resources are expected to be better managed and utilized in the process and afterwards.

On January 21-22, 2020, the project trained 26 staff of the Ministry of Agriculture and Natural Resources, Makurdi Benue State including 17 males and 9 females on the concepts of the Nigeria Agricultural Policies and Strategies. A similar training was replicated to 25 (17 males and 5 females) staff of Ministry of Agriculture, and Forestry, Kaduna State between February 5–6, 2020. The training delved into the Agricultural Transformation Agenda (ATA), the Agriculture Promotion Policy (APP), the Economic Recovery and Growth Plan (ERGP) of the Muhammadu Buhari-led government as well as the Comprehensive Africa Agricultural Development Programme (CAADP) driven by the African Union, among others. The training aims to improve the participants' understanding and ability to engage in the various national agriculture policy discourse. This is in addition to promoting the

mainstreaming of national level agriculture policies at the sub-national levels and thus, improve policy synergy and better implementation.

From January 20-24, 2020, the project organized a training on Data Analysis using R Statistical Software at the Ministry of Agriculture, Abakaliki, Ebonyi State. The training was attended by 18 (14 males and 4 females). From those trained, only one had prior experience with a statistical software (SPSS). The ministry therefore articulated a big gap in the area of analysis. The trainers thus introduced R to the staff being careful to demonstrate how it can be relevant to the kind of work they do at the Ministry of Agriculture. Training participants expressed their gratitude for the training requesting for a longer duration. In response to this and as part of the project strategy to ensure that skills acquired during trainings are applied, a "WhatsApp group was formed as a strategy to further guide and provide assistance to participants with any challenges faced in their use of R.

Between February 24 and 28th, the project organized a training on Data Analysis using R at the Ministry of Agriculture and Natural Resources Minna, Niger State. The training was led by three project scholars (Hephzibah Obekpa, Balaraba Sule and Dr. Charles Olumba). Twenty-four participants (19 males and 5 females) from six different ministries, departments and agencies in Niger State (Ministry of Agriculture and Rural Development, Ministry of Livestock and Fisheries, Niger State Agricultural and Mechanization Development Authority, Fadama, Women Affairs, Planning Commission and Bureau for Statistics) were trained. None of the participants had previous exposure to R software. Some had used Excel, SPSS and STATA but the licensing cost posed a challenge to their legal acquisition. The training included an introduction to R, basic R structures and commands, managing R packages, data management in R, graphics in R, Regression, correlation and ANOVA amongst others. After training participants to use R, they were given assignments that covered modules taught in class to work through for 2 weeks after the training as a strategy to encourage experiential learning. The participants were thrilled and indicated that they would appreciate if the training lasted more than a week. It is expected that trained staff at the various ministries would be able to use R to conduct relevant data analysis to support the production of evidence-based policy documents in their various departments and ministries.

First Quarter (October – December 2019)
The project delivered a training course on the Nigeria Agricultural Policies and Strategies to the staff members of the Kebbi State Ministry of Agriculture and Natural Resources between 28th and 29th November 2019. At the training were 21 participants (20 males and 1 female) who participated fully for the training duration. The training looked at the Agricultural Transformation Agenda (ATA), the Comprehensive Africa Agricultural Development Programme (CAADP) driven by the African Union, as well as the Agriculture Promotion Policy (APP) and the Economic Recovery and Growth Plan (ERGP) of the Muhammadu Buhari-led government, among others. The training aims to improve the participants' understanding and ability to engage in the various national agriculture policy discourse. This is in addition to promoting the mainstreaming of national level agriculture policies at the sub-national levels and thus, improve policy synergy and better implementation.

1.2.2 Project scholars

Fourth Quarter (July – September 2020)

For the reporting period, the project scholars maximized use of digital technology and the project social media platforms to strengthen engagement with actors across the agricultural policy ecosystem.

These actors include academia, other researchers, policy makers, farmer groups, young people etc. These activities have attracted a cumulative following of about 1,200 individuals, across the 3 main digital platforms, an increase of about 400 since the last reporting period. These platforms are increasingly becoming the go to place for information on agriculture in general and agriculture policy. They provide an avenue where dialogues on policy, research and training hold. For the reporting period, the Project Scholars and their Professors continue to record impact. Some of these include:

NAPP Scholars:

1. Mrs. Toyin Ademola and her advisor, Dr. Adewale Obadina (University of Agriculture, Abeokuta), carried out significant NAPP activities in this project year
   a. Knowledge Transfer: She and Dr. Obadina engaged in dissemination and training programme for agricultural extension agents and students based on recently conducted research studies on aflatoxin in the maize value chain in south west Nigeria. The dissemination and training programme were conducted in four states (Ogun, Ebonyi, Niger and Benue) from November 2019 through February 2020. In this "train-the-trainer" programme, participants were trained how to address mold growth, possible aflatoxin contamination, possible solutions along the maize value chain. and to share the same with others around them. They trained 124 participants in all the four states: Ogun (24), Ebonyi (26), Niger (24) and Benue (50).
   b. Mrs. Toyin published an important article: based on the research studies on aflatoxin in the maize value chain in southwest Nigeria.
      Oluwatoyin Ademola, Nikita Saha Turna, Lenis Saweda O. Liverpool-Tasie, Adewale Obadina, Felicia Wu. 2020. *Mycotoxin reduction through lactic acid fermentation: Evidence from commercial ogi processors in southwest Nigeria.* Food Control 121 (2021) 107620.
2. Dr. Blessing Iveren Agada has continued her NAPP involvement. She was a participant and speaker at the II international Conference on Science Communication and Development in Africa (Abuja Nigeria) and was part of the MSU team to brainstorm under the Alliance for African Partnership (AAP) / MSU new initiative - African Resilience through Innovations in Soil Ecology and Extension (ARISEE). She has carried out:
   a. Speaker at the II international Conference on Science Communication and Development in Africa (Abuja Nigeria) and was part of the MSU team to brainstorm under the Alliance for African Partnership (AAP) / MSU new initiative - African Resilience through Innovations in Soil Ecology and Extension (ARISEE).
   b. Short term consultancy as team lead providing technical support and coordination for the working group on the creation of training manuals for Nigerian Incentive-Based Risk Sharing system for Agricultural Lending (NIRSAL) Agricultural Value Chain (AVC) capacity development project (AVC Cap-Dev) for Nigeria's 36 states.
   c. Drafted a technical paper to analyze and compare the profitability of out-grower scheme, lease and cultivating, paddy aggregation and commodity trading in selected agro-geopolitical zones in Nigeria including a draft recommendation.
   d. Facilitated a training on R Statistical Analytical Language organized by USAID in partnership with the NAAP, International Fund for Agricultural Development (IFAD), IFPRI and MSU. Held at Amadu Bello University Zaria (ABU) Kaduna State, Nigeria.
   e. Led strategic engagements and business study tour to Benue and Nasarawa states for the implementation of cassava flakes integrated factory so to serve as off-takers from farmers within the agro-ecological zone. Sampled and tested soils in the laboratory for productivity and suitability for large scale crop production of cassava and rice.

f. Discussions on soil productivity index map for Benue state and modalities to implement same.

3. Mr. Onyinye Prince Choko engaged in several activities stemming from his NAPP activity.
   a. During the heat of the pandemic, NAPP organized a series on the impacts of COVID 19 on Nigeria. Mr. Choko and Dr. Onyeneke (Alex-Ekwueme Federal University Ndufu-Alike Ikwo) were panelists of one workshop. Mr. Choko noted the beneficial impacts on the environment of the COVID 19 lockdown: air quality and biodiversity. Participants consisted of government officials, academia, NAPP scholars, private sector and other stakeholders. Further, he participated in producing an important journal article:

   Laura Schmitt Olabisi, Robert Ugochukwu Onyeneke, Onyinye Prince Choko, Stella Nwawulu Chiemela, Lenis Saweda O. Liverpool-Tasie, Anthonia Ifeyinwa Achike and Adedapo Ayo Aiyeloja. 2020. *Scenario Planning for Climate Adaptation in Agricultural Systems.* Agriculture 2020, 10(7), 274; https://doi.org/10.3390/agriculture10070274

   b. Professional development
      i. Mr. Choko applied for the position of Assistant Lecturer, Department of Forestry and Wildlife Management, University of Port Harcourt and awaits the outcome.
      ii. Further, he has secured admission to study for a doctoral degree in Environment and Agrifood at the University of Cranfield, United Kingdom. The research topic is titled "Economic assessment of community-based climate change adaptation measures in selected coastal communities in the Niger Delta". There have been delays in beginning this degree program largely due to COVID 19.

4. Mr. Phillip Hegarty had no knowledge of statistical analysis using R. He was trained for two weeks by Dr. M. Olabisi from MSU at CPEEL University of Ibadan. Further, he took some courses while at MSU that required the use of R and SAS. Now, he has successfully trained many people across the USAID project states in Nigeria to use R for data analysis from scratch.:
   a. Ebonyi State Ministry of Agriculture and Natural Resources staff on Agricultural Data Analysis using R (January 27th to 31st 2019)
   b. Staff of Ebonyi State University (Faculty of Agriculture and Natural Resources Management), and Faculty of Agriculture, the University of Nigeria Nsukka on Data Analysis using R (January 19th to 25th 2019)
   c. Staff of Faculty of Agriculture, Ahmadu Bello University Zaria, Federal University Dutsinma, and Kaduna State University on Data Analysis using R (16th to March 20th 2020)

5. Dr. Charles Olumba returned to his home university (Department of Agricultural Economics, Management and Extension, Ebonyi State University, Abakaliki, Ebonyi State, Nigeria (EBSU)) and successfully defended his Ph.D dissertation and attained his doctorate on January 15, 2020.
   a. Outreach. He and his supervisor (Professor J. O. Alimba) organized a workshop to train Ebonyi State Ministry of Agriculture & Natural Resources officials on agricultural policy formulation and how policies can address the agricultural issues in the State. He was also involved in the Aflatoxin dissemination and training program with a focus on creating awareness among local communities in Ebonyi state on maize fermentation and safety.
   b. Knowledge transfer. He transferred knowledge to both students and lecturers in tertiary institutions across various states in the country. With the assistance of co-scholars, he facilitated a 1-week workshop on the use of the computer software package "R" in four FTF focal States: Benue, Ebonyi, Niger and Kaduna States. Initially, the target audience for training were academic staff and students of the tertiary institutions across the states. However, demand grew and senior staff of the Ministry of Agriculture also asked R training was extended to the States Ministry of Agriculture. The R training took place

between January to March 2020. To ensure progression and widespread knowledge of R, a requirement for recruitment of the trainee was their willingness to train others in their respective institutions. Dr Olumba initiated and managed a WhatsApp group for on-going interactions between trainees, the MSU team and other NAPP scholars.

    c. Collaboration. He and his primary supervisor (Prof. Alimba) at EBSU and his MSU Mentor (Prof. Tasie) published part of his thesis findings in the USAID policy research briefs. Also from his thesis report, he co-authored with Prof. Alimba a paper. It is currently under review by and peer-reviewed journal.

    d. COVID-19 lockdown. The NAPP team organized a webinar series on implications of COVID-19 on the agricultural sector. Due to the poor quality network, he was unable to participate in this virtual event. However, he contributed to this conversation, by providing grass-root information to Prof Tasie and Prof Liverpool-Tasie on the COVID-19 situation in the villages at Imo State and the implication of the lockdown on their food security and livelihood sources.

6. Dr. Wellington Osawe supported, through virtual meetings, and has contributed to the mentoring of young scholars in Nigeria. He is mentoring on research, data analysis using R (a skill developed under the Scholars Program) as well as in the development of project (grant) proposal writing. In addition, he has leveraged on the project networks to engage in collaborative research activities with 2 article publications underway.

7. Mrs. Balaraba Sule
    a. Training.
        i. Mrs Sule and her advisor, Dr. Coker (Federal University of Technology Minna), participated in training 25 state extension agents and 25 students from institutions of higher learning in the state on Aflatoxin Maize Management Training and Dissemination Exercise carried out in Niger State from 27th to 28th January 2020. Other NAPP scholars and Professors facilitated the training, while the Niger State team undertook organization and arrangement of logistics.
        ii. She co-facilitated R trainings conducted in Niger and Kaduna States for University lecturers and state ministry of agriculture staff as follows: 17th to 21st February 2020, Niger State Ministry of Agriculture, 24th to 28th February, IBBU University Lapai, and 16th to 20th March 2020, Ahmadu Bello University Zaria.
    b. Knowledge transfer.
        i. She developed and finalized the Benefit-Cost Analysis Manual. It is to be used in training targeted stakeholders: Planning Officers, Research and Statistics Officers (from targeted Ministries, Departments and Agencies (MDAs) in the State, including Planning, Monitoring and Evaluation (PME) officers of Niger Agriculture and Mechanization Agency (NAMDA)), lecturers from the Department of Agricultural Economics in Federal University of Technology Minna (FUTMINNA) and Ibrahim Badamasi Babangida University (IBBU). The proposed training will enhance capacity for agricultural commodity enterprise and policy analysis.
        ii. Policy briefs, highlights and pamphlets were produced by both Mrs. Sule and Dr. Coker and disseminated to stakeholders in five MDAs in Niger State. These are the Ministry of Agriculture and Natural Resources, Ministry of Livestock of Fisheries, Ministry of Women Affairs, Ministry of Planning, Research and Statistics.
        iii. Dissemination at Federal University of Technology, Minna. At the 37th Founders' day and 29th Convocation Ceremony of the Federal University of Technology

Minna, Mrs. Sule and her advisor were selected as representatives of the Department of Agricultural Economics and Farm Management. Policy briefs, highlights and Pamphlets produced by them (NAPP supported) were displayed for the duration of the program (from 30th January 2020 to Saturday 1st February 2020)

c. Collaborations

    i. With African Project Development Centre (APDC) to enhance FUTMINNA's students industrial work experience. Visits were undertaken to APDC in Gwagwalada, Abuja to understudy its Agripreneurship Incubation and Training model for consideration by the Management. Collaboration in the area of enterprise and policy analysis was also discussed. Presently, the collaboration is developing a proposal in support of MSU's Partnership for Innovative Research in Africa (PIRA) grant.

    ii. With MSU, FUTMINNA and IBBU is on-going. Mrs Sule and Dr. Coker participated in capacity building sessions to deepen agricultural policy engagements.

    iii. Project support team on agricultural policy engagement and capacity building. They are already in the process of setting up a Project Support Team to intervene in the areas of capacity building, technical support and agricultural policy discourse within the five Feed the Future targeted States. Resource persons are being sourced from both IBBU and FUTMINNA. The WhatsApp platform will become operational as soon as we are done with implementation modalities.

NAPP Professors:

1. Professor Jonathan Okechukwu Alimba (supervisor of Dr. Charles Olumba)
    a. Dr. Alimba served as a resource person for IFPRI Nigeria in 2 days of training senior staff from the Ministry of Agriculture, Ebonyi State on Agricultural Policy Formulation under NAPP.
    b. Dr. Alimba served as a resource person on Data Validation Workshop for the Development of Ebonyi State Agricultural Policy Document organized by NAPP.
    c. He served as a resource person for the online review of the Ebonyi State Agricultural Extension Policy under IFPRI-NAPP.
    d. He participated in a one-day review of the Ebonyi State Agricultural Policy draft report organized by NAPP at Abakaliki, Nigeria
    e. **NOTE**: It must be noted that the COVID 19 pandemic resulted in the shutdown of most institutional activities in Nigeria. That may have affected some activities related to NAPP. However, the project did its best to drive some crucial activities related to Ebonyi State Agricultural Development. My student/ NAPP Scholar was able to participate in training post graduate students and even young academics of Agricultural Economics and other related disciplines of Ebonyi State University and other NAPP Universities in Nigeria on the application of novel data analysis tools as STATA, E-VIEW, NGENE, among others which they were exposed to in AFRE-MSU.
2. Prof. Kabir Salman, (Dr. Wellington Osawe's primary academic advisor), has continued to advocate for reform in teaching and research following lessons learned while at MSU under the Scholars Project. The advocacy has extended beyond the University of Ibadan, where he is a Professor of Agricultural Economics. His advocacy for reform was extended to a curriculum development activity with the African Economic Research Consortium (AERC) between June and

August 2020. He continues to leverage on the networks established through the project and has participated in several high value discussions held in virtual meetings through the networks.

3. Prof. Ayo (Mr. Onyinye Prince Choko's supervisor) engaged in activities in the form of Research and Panel Discussion/Lecture/Presentation.

   a. Research. He collaborated with other experts on a study of the Scenario Planning for Climate Adaptation in Agricultural Systems. The aim was to provide a decision-making tool to guide legislators when enacting laws impacting the adaptive capacity of local communities to respond to climate change uncertainties. Data gathered from the survey was organized, analyzed and then a journal article was published under the auspices of Multidisciplinary Digital Publishing Institute (MDPI), a Swiss based journal. Thus far, the article has received multiple viewership and recommendations from a wide range of stakeholders.

   b. Panel Discussion/Lectures/Presentation: Professor Ayo organized a faculty wide lecture in the faculty of Agriculture, University of Port Harcourt titled "Between the traditional and the orthodox, which way out?" The publicity caught the attention of several dignitaries within and outside the university community and these persons were also present on the day of the lecture. The lecture, focused on herbal /traditional and orthodox medicine, exposed the strengths and weaknesses of both medicines and detailed that exaggeration of their strengths is uncalled for. Professor Ayo suggested that traditional medicine should be standardized through scientific and technological means; while the citizens should be educated on the potency and utilization of medications. He recommended that there should be a law to incorporate traditional medicine into Nigeria's health care delivery system. Professionals of both practices should be researched to enhance the health care system. Prof Ayo's research gate account served to harness the usage and application of both medicines in the several healthcare delivery systems.

Third Quarter (April – June 2020)

Covid-19 Feed the Future Nigeria Agricultural Policy Project Scholars Program Informational Series

With the onslaught of Covid-19, on April 1, 2020 the Scholars Program, launched an informational series to provide technical information on COVID-19 and its impact on the several sectors of Nigeria's economy, particularly agriculture and food security. The series focused primarily on agriculture and included expert discussions on food security, nutrition, climate change, agricultural research, gender and livelihoods. The sessions ran from April 1 to May 13, 2020. Each session was about 90 minutes and all were virtual via Zoom. The sessions featured two panelists, a NAPP Scholar/Collaborator and an individual who is an expert on the relevant topic. Contributions/Discussion were based on current or past researches and experiences on the subject. Dr Oyinkan Tasie moderated the discussions. Table 3 presents the list of topics covered and featured panelists. Each weekly session followed the following format:

   a. Introduction/setting the tone for the conversation by the Moderator – 5 minutes
   b. Panelist A: Opening Discussion - 15 Minutes
   c. Panelist B: Opening Discussion - 15 Minutes
   d. Questions and Answers from Participants - 50 Minutes
   e. Wrap up and final comments - 5 Minutes
   (See ANNEX H to view a sample flyer.)

Table 3 COVID-19 and its impact on Nigeria's economy, particularly agriculture and food security

Topic	Date	Panelists		Recording URL	Attendees (M, F)
COVID-19 and its Impact on Nigerian Agriculture	April 1, 2020	Bernard Onoja {Department of Virology, College of Medicine, University College Hospital, Ibadan and Chairperson, CSSJ Class of 1996}	Wellington Osawe {Agricultural Economist, National University of Ireland, Galway (NUIG) and NAPP Scholar 2018}	https://www.canr.msu.edu/news/covid-19-and-agricultural-policy-research-in-nigeria	April 1(16 male 16 female)
COVID -19 and Its Impact on Nutrition and Health of Vulnerable Persons in Nigeria	April 8, 2020	Olufemi Adegoke, {Country Manager, Oxford Policy Management}	Hephzibah Onyeje Obekpa, {Department of Agricultural Economics, Federal University of Agriculture Makurdi and NAPP Scholar 2019}	https://www.canr.msu.edu/news/covid-19-and-its-impact-on-nutrition-and-health-of-vulnerable-people-in-nigeria	April 8 (22 male, 21 female)
COVID-19 and Its Impact on the Environment in Nigeria in a Global Context	April 15, 2020	Onyinye Choko, 2018 NAPP Scholar and Research Scientist, Biodiversity, Wetland and Climate Change Center, Rivers State University	Robert Onyeneke, NAPP Collaborator and Acting Head, Department of Agriculture, Alex Ekwueme Federal University Ndufu-Alike, Ebonyi State	https://www.canr.msu.edu/news/covid-19-and-its-impact-on-the-environment-in-nigeria-in-a-global-context	April 15 (32 male, 35 female)
COVID-19 and Agricultural Policy Research in Nigeria	April 22, 2020	Anthony O. Onoja (President, Agricultural Policy Research Network [APRNet]; immediate Past Head, Dept. of Agricultural Economics & Ext., Faculty of Agriculture, University of Port Harcourt, Nigeria)	Job N. Nmadu, (Professor of Agricultural Economics Federal University of Technology, Minna; Fellow and President, Nigerian Association of Agricultural Economists)	https://www.canr.msu.edu/news/covid-19-and-agricultural-policy-research-in-nigeria	April 22 (36 male, 35 female)

Topic	Date	Panelists		Recording URL	Attendees (M, F)
Gendered Impacts of Covid-19 on Livelihoods Nigeria	29 April 2020	Heather-Ronke Akanni. National Women Youth Specialist, Agro-Processing Productivity Enhancement & Livelihood Improvement Support (APPEALS) Project. FMARD-World Bank Supported.	Patience Ekeoba. National Programme Officer, UN Women, Nigeria	https://www.canr.msu.edu/news/gendered-impacts-of-covid-19-on-livelihoods-in-nigeria	April 29 (39 male, 38 female)
Covid-19 and its Impact on Agribusiness in Nigeria	6 May 2020	Aliyu Samaila, (Agribusiness Director USAID/Feed the Future Nigeria Agribusiness Investment Act)	Ayodeji Balogun, Chief Executive Officer (CEO), AFEX Commodities Exchange Ltd.	https://www.canr.msu.edu/news/covid-19-and-its-impact-on-agribusiness-in-nigeria	May 6 (33 male, 20 female)
A Discussion on the Nigerian Economy Post COVID-19	13 May 2020	Olusegun A. Omisakin, Chief Economist and Director of Research and Development at the Nigerian Economic Summit Group (NESG)	Akin Iwqayemi, Department of Economics, University of Ibadan.	https://www.canr.msu.edu/news/a-discussion-on-the-nigerian-economy-post-covid-19	May 13 (23 male, 14 female)

On May 18, 2020, the policy project partnered with World Fish to launch a study on "COVID-19 and the Fish and Poultry Value Chains in Nigeria". Through the study, NAPP scholars will work with the project to collect information via telephone surveys to understand the impact of COVID-19 and its policy responses on key commodity value chains. This study (and its findings) will be useful for guiding policy and donor support to these key value chains in Nigeria in a post COVID-19 era. The study builds on work and support via research that the Policy Project has been engaged in and shows how the policy project is partnering with other donor agencies to inform policy with research.

Telephone interviews were used as well as a review of various government policies across key fish and poultry producing states in the six geopolitical zones. This was to understand the impact of COVID-19 on these value chains and the correlation between level of impact and State and relevant Federal Government policies.

Second Quarter (January – March 2020)
The policy project has brought Nigerian scholars (13 Masters and PhD students) and their advisors to Michigan State University (MSU) for courses, research training and support combined with long term mentoring. Mentoring started in Nigeria, (once the scholars were selected before coming to MSU). It continues now that the scholars have completed their tenure at MSU and have returned to Nigeria. So far, the project scholars have produced 31 publicly available research publications and 54 program highlights. Project scholars returning home have so far trained over 1200 Nigerians on data collection and analysis over the life of the project. There is currently an increasing demand for these trainings across the country. Below, we summarize the main highlights of this program for the second quarter of Year 5.

Training of trainers
In this second quarter (January-March 2020), NAPP scholar Mrs. Toyin Adebowale and her Nigerian advisor (Dr. Obadina, University of Agriculture, Abeokuta) continued to train Nigerians to disseminate information on safe maize production and handling practices to avoid Aflatoxin contamination in selected FtF states. In this quarter, 74 additional trainees (from Niger [50] and Benue [24] Sates) joined with the 46 trainees (in 4 LGAs in Ogun State [22], and Ebonyi [26,]) from Q1 to disseminate information about how to prevent the incidence and growth of aflatoxins along the maize value chain to 12,204 others (6,551 females and 5,6523 males).

The first training during this quarter was held at the Ministry of Agriculture, Minna, Niger State January 27-28, 2020. The two-day program was used to disseminate findings from a set of research studies conducted by the project on "aflatoxin along the maize value chain in Nigeria". The program was designed as a "Training of Trainers". The participants were trained and mentored so that they were prepared to disseminate the information about aflatoxin and maize management to others in their communities.

Mrs. Adebowale and an MSU Mentor monitored those trained as they disseminated the findings in their communities. Each participant shared videos of their own dissemination activities every week via WhatsApp. This was used to track the number of individuals reached and also to monitor the activities of those trained.

From January 30-31, 2020, another training took place at the Ministry of Agriculture and Natural Resources (MANR), Makurdi, Benue State. Trainees included 24 extension agents (17 males and 7 females), from across Benue State, using the Niger State approach. Trainees were supported to train

others in their communities after the training. Each participant shared videos of their own dissemination activities every week via WhatsApp. This was used to track the number of individuals reached and also to monitor the activities of those trained.

Still along the lines of the training the trainers, five project scholars; (Dr. Blessing Agada, Dr. Olumba Chukwudi, Mrs. Obekpa Hephzibah Mr. Hegarty Philip and Mrs. Sule Balaraba) provided five (5) sessions of training on the free statistical software "R" for data analysis (described above). Following their training at Michigan State University, the project scholars have been mentored on the use of "R" for data analysis as well as on how to train others. Over the last year, the project scholars have been increasingly training other Nigerians on the use of the software. In the last quarter, 111 participants took R training (Male-90, Female-21) including State Ministry officials (42), researchers and academics (69) (Table 4).

Table 4. Number of Individuals Participating USG Food Security Programs Led by Project Scholars (Indicator 4)

Date	Location	Topic	Participants				
			Type	Male	Female	15-29	30+
January 20-24, 2020	Ministry of Agriculture, Abakaliki, Ebonyi State.	R Training for staff of Ministry of Agriculture	Government sector	14	4	0	18
January 27-28, 2020	State Ministry of Agriculture and Rural Development, Mina, Niger State Secretariat	Nigeria Agricultural Policy Project (NAPP) maize management dissemination training programme	Government sector (27), Civil Society (22)	40	10	16	34
January 27-31, 2020	Ebonyi State University	Training Workshop on R	Academic	17	6	0	23
January 30-31, 2020	Federal Ministry of Agriculture, Makurdi	Aflatoxin Training for Dissemination in Benue State	Government Sector (18), Research and Academic organizations (6)	7	17	0	24
February 17-21, 2020	Ibrahim Badamasi Babangida (IBB) University, LAPAI, Niger State	Training Workshop On R	Research and academic (25)	22	3	0	25

Date	Location	Topic	Participants				
			Type	Male	Female	15-29	30+
February 24-28, 2020.	Ministry of Agriculture and Natural Resources Minna, Niger State	Training Workshop On R	Government sector (24)	19	5	0	24
March 17-21, 2020	Ahmadu Bello University, Zaria	Training Workshop On R	Research and academic (21)	18	3	1	20

Table 5. Dissemination activities of the Project Scholars

	Location	Participants
Second Quarter		
1. How to prevent the incidence and growth of aflatoxins along the maize value chain	Ebonyi State	Total: 4340 (Male: 1734, Female: 2606)
2. How to prevent the incidence and growth of aflatoxins along the maize value chain	Niger State	Total: 6138 (Male: 3254, Female: 2884)
3. How to prevent the incidence and growth of aflatoxins along the maize value chain	Benue State	Total: 1391 (Male: 509, Female: 882)
4. How to prevent the incidence and growth of aflatoxins along the maize value chain	Ogun State	Total: 355 (Male: 156, Female: 179)

Table 6. Number of Agriculture Policy Communications Developed and/or Written for Stakeholder Consumption by Project Scholars. (For complete list, please see ANNEX F: Indicator 7)

Full citation of the communication			
Authors	**Date**	**Title**	**Publication Venue**
Hephzibah O. Obekpa.	2020	Nigerian Scholars train staff of the Ministry of Agriculture and Natural Resources in Ebonyi State.	Nigeria Highlights 66, East Lansing: MSU

Full citation of the communication			
Authors	**Date**	**Title**	**Publication Venue**
Philip Hegarty James.	2020	Project Scholars Train Staff of Faculty of Agriculture and Natural Resources Management, Ebonyi State University, Abakaliki on "R" For Statistical Computing.	Nigeria Highlights 67, East Lansing: MSU
Oluwatoyin Adebowale.	2020	Aflatoxin Dissemination and Training Programme in Niger State.	Nigeria Highlights 68, East Lansing: MSU
Oluwatoyin Adebowael.	2020	Aflatoxin Dissemination and Training Programme in Benue State.	Nigeria Highlights 69, East Lansing: MSU
Balaraba Sule	2020	Reaping the Benefit of the Visiting Scholar Program of the Nigeria Agricultural Policy Project: Training on R Statistical Software.	Nigeria Highlights 70, East Lansing: MSU
Hephzibah Onyeje Obekpa.	2020	Training and Mentoring on R Now Extended to State Ministry of Agriculture and Natural Resources, Minna, Niger State.	Nigeria Highlights 71, East Lansing: MSU

First Quarter (October – December 2019)

So far, the policy project has brought Nigerian scholars (13 Masters and PhD students) and their advisors to Michigan State University (MSU) for courses, research training and support combined with long term mentoring. Mentoring starts in Nigeria after scholars have been selected and before they come to MSU. It continues even after the scholars complete their tenure at MSU and return to Nigeria. So far, the project scholars have produced 31 publicly available research publications and 47 program highlights including peer reviewed journal articles. Project scholars returning home have so far trained over **1000** people on data collection and analysis. There is currently an increasing demand for these trainings across the country. Below, we summarize the main highlights of this program for the first quarter of Year 5.

Project's scholars program is increasingly becoming aware of the diverse ways that the young Nigerian scholars trained and mentored by the project are achieving their personal academic goals as well as contributing to project goals of supporting inclusive agricultural productivity growth, improved nutritional outcomes, and livelihood resilience for men and women through an improved policy environment guided by empirical evidence in Nigeria.

In this quarter, the project was informed that two project scholars completed their academic degrees. Ms. Aisha Lawal Ibrahim, successfully completed her Master's Degree at Ahmadu Bello University, Zaria while Dr. Iveren Agada completed her Doctoral Degree from Federal University of Agriculture, Makurdi. (Both of them acknowledged the support received by USAID Nigeria)

Also, in this quarter, NAPP scholar Mrs. Toyin Adebowale and her Nigerian advisor (University of Agriculture, Abeokuta) worked with her MSU mentor to develop a training manual, non-technical communication pieces and a training activity (applying the trainer of trainer approach) on how to prevent the incidence and growth of aflatoxins along the maize value chain in Nigeria. These materials were based on research conducted by the team under the Policy Project. The team successfully trained 22 people (18 male, 4 female) carefully selected from all the local governments in their home state

(Ogun) as a pilot case. The 22 trainees have gone on to disseminate information about how to prevent the incidence and growth of aflatoxins along the maize value chain to 434 others (198 females and 236 males) of which 142 (50 female and 92 male) were trained in October to December 2019 in the private sector and civil society. The project scholar continues to monitor those trained as they train others in their communities. The team (leveraging on the success of the pilot and what has been learned) on December 17 – 18, 2017 in Abakaliki, Ebonyi State also conducted a training of 26 people (13 female and 13 male).

Another project scholar, Dr. Blessing Agada was invited to participate in an international meeting of Science communication and Development in Africa because of work she was supported to prepare and disseminate as a project scholar. (see Highlight # 65). As a project scholar, young Nigerian graduate students are supported to prepare non-technical versions of their research for the Nigerian public while at Michigan State University. Dr. Blessing Agada was supported to prepare and disseminate a farmer manual (based on her research) titled "A guide to accounting for soil physical properties and fertilizer use in maize based systems". The project translated the manual in English into the TIV language (a major Nigerian language used in Benue State) and a UNESCO came across the manual and translations while in Benue State. Impressed with the translated farmer manual, the UNESCO representative invited Dr. Blessing to do a joint paper with a professor at Nasarawa State University Keffi, Nigeria under the UNESCO theme of the 2019-year "International year of Indigenous Languages". Dr. Agada was sponsored to present the paper at the 2nd International Meeting of Science Communication and Development in Africa" http://www.isdevcom.ng, https://scicom2019.isdevcom.ng/ with the theme "Humanizing Science: Optimizing Innovation and Communication for Development in Africa. She served on a panel at the conference to discuss ways of effectively and efficiently communicating scientific research findings to a non- scientific audience. She says this was all because of the insightfully translated farmer manual created by The Policy Project. This demonstrates that the innovations by the Policy Project to extend the value of rigorous scientific research to Nigerians via non-technical communication pieces is being appreciated and that by training scholars to develop and disseminate these, the Policy project objective of Nigerian Scholars leading these efforts is increasingly happening as a Nigerian scholar in Nigeria is carrying the flagship of this innovation.

In quarter 1, project scholar Ms. Aisha Lawal Ibrahim was approached by a potential collaborator in Iraq to jointly conduct research on agglomeration economies and its impact on women and youth. This interaction was based on a link fostered by her Facebook post about her research while at MSU and builds on her MSc thesis supported by the project. This also shows how the project scholars programs showcasing of scholars' work is increasing their international recognition and attracting attention to Nigerian issues.

This quarter, NAPP scholar Dr. Blessing Agada was invited (and fully sponsored) to participate in an MSU wide initiative "African Resilience through Innovations in Soils Ecology and Extension (ARISEE), organized by her NAPP MSU Advisor and mentor Prof. Sieg. It was a fully funded opportunity to join a brainstorming session with great intellectuals from many disciplines and several African countries; an experience that allowed Blessing to disseminate findings from her research but also learn from and form relationships with scholars focused on similar issues across Africa. She was also invited to be part of a continent-wide discussion (in Uganda) on African soils and fertilizer use in Africa, which she could not participate in, due to time conflicts. All these developments demonstrate that the training and networks that scholars are exposed to as part of the Policy Project scholar program is increasing the demand for their knowledge and skills as part of national and global

discussions on issues related to agriculture. This is in line with the Policy Project's goal of supporting the development of Nigerian scholars to be the "go to" for such national and continent-wide efforts

Capacity building activities on the MSU campus
In this quarter, three project scholars (3 PhD candidates) successfully completed their studies as NAPP Scholars and returned to their universities in December 2019. While on campus the scholars engaged with the MSU community and presented their work both on and off campus These presentations provided the students opportunities to get feedback on their work, practice making formal presentations while sharing knowledge on Nigerian issues.

<u>**Presentations made by the Project Scholars this Quarter.**</u>
1. Mrs. Hephzibah Onyeje Obekpa (Federal University of Agriculture, Makurdi):
    a. **Nutrition and Dietary Diversity in Nigeria.** Presented at the Department of Agricultural Food and Resource Economics. Seminar on 5 November 2018. Fifteen Attendees (10 Male, 5 Female).
2. Mr. Charles Olumba Chukwudi (Ebonyi State University)
    a. **Towards Urban Agri**culture: Assessing Land Grabbing and Access in South East Nigeria Presented at the MSU AFRE Brownbag Seminar series on 18 November 2019, 13 Attendees (7 Male and 6 Female)
3. Mrs. Balaraba Abubakar Sule (Federal University of Technology, Minna)
    a. "Postharvest Loss and its Effect on the Profit Margin of Wholesale Vegetable Marketers in Abuja, Nigeria Sustainability and Development Conference, University of Michigan, Ann Arbor. USA 13 October 2019
    b. Effects of Agricultural Policies on Rice Production Systems in Kebbi State, Northwest Nigeria. Presented at the MSU AFRE Brownbag Seminar series on 18 November 2019, 13 Attendees (7 Male and 6 Female)

Table 7. Number of Agriculture Policy Communications Developed and/or Written For Stakeholder Consumption by Project Scholars. (For complete list, please see ANNEX F: Indicator 7)

Full citation of the communication			
Authors	**Date**	**Title**	**Publication Venue**
Blessing Iveren Agada	Nov. 2019	Taking a Chance on Me! The Ripple Effects of the NAPP Capacity Building Module of Train One to Train Others'	Nigeria Highlights 65, East Lansing: MSU.
Godwin A Abu	Nov. 2019	Highlights of My Visit to Michigan State University.	Nigeria Highlights 64, East Lansing: MSU.
Ayodeji Alexander Coker	Nov. 2019	Tapping from the Proceedings of the Michigan State House of Representatives' Committee on Agriculture- My MSU Experience	Nigeria Highlights 63, East Lansing: MSU.
Balaraba Sule	Nov. 2019	Nigeria Agricultural Policy Project Scholars' Program: Opportunity for Empowerment, Professional Linkages and Replication of Best	Nigeria Highlights 61, East Lansing: MSU.

Full citation of the communication			
Authors	Date	Title	Publication Venue
		Practices Highlights 62, Dr. Ayodeji Alexander Ajibola Coker, November 2019. The Lattice Community: An Innovative Experiment	
Jonathan Okechukwu Alimba	Nov. 2019	The Project Scholar Program: A Rare Privilege and Wonderful Experience Worth Sharing.	Nigeria Highlights 60, East Lansing: MSU.
Sule, B. A., Crawford, E. and Coker, A. A. A.	Dec. 2019	Competitiveness and Comparative Advantage of Rice Production Systems: The Policy Analysis Matrix Approach	FSP Research Brief 102, East Lansing: MSU.
Ayodeji Alexander Ajibola Coker and Balaraba Sule	Dec. 2019	Entrepreneurial Skills and Job Preference among Agriculture Undergraduates: Evidence from Niger State, Nigeria	FSP Research Brief 114, East Lansing: M MSU.
Sule, B. A., Crawford, E. and Coker, A. A. A.	Dec. 2019	Competitiveness and Comparative Advantage of Rice Production Systems: The Policy Analysis Matrix Approach	FSP Research Brief 102, East Lansing: MSU.

Supervising Professors Visit MSU.

During the period October 25 – November 24, Professors Ayodeji Coker (Federal University of Technology Minna, Niger State, Nigeria), Jonathan Okechukwu Alimba (Ebonyi State University, Abakaliki, Ebonyi State, Nigeria) and Abu Godwin (University of Agriculture Makurdi, Benue State, Nigeria). They are the supervisors of Mrs. Balaraba Abubakar Sule, Mr. Charles Olumba Chukwudi and Mrs. Hephzibah Onyeje Obekpa, respectively.

While at MSU, these professors met many MSU faculty and forged research linkages that look very promising for providing answers to important research questions. Beyond meeting with colleagues in Agricultural Economics they were briefed on the technical aspects of projects such as grant management; proposal development and submission were covered.

They made a set of presentations at the seminar on "Aspects of Land Research in Nigeria, Presentations and Panel Discussion". in the MSU Department of Agricultural, Food and Resource Economics on November 11, 2019.
1. The Herdsmen-Farmers Conflict in Benue State, Nigeria: Implications for food Security. Abu Godwin (University Of Agriculture Makurdi, Benue State, Nigeria).
2. Land Acquisition Strategies and Rice Productivity among Smallholder Farmers: Evidence from Niger State, Nigeria. Ayodeji Coker (Federal University of Technology Minna, Niger State, Nigeria)
3. Determinants of Adoption of Sustainable Land Management (SLM) Practices by Crop Farmers of the World Bank Assisted FADAMA 111 Project in Southeast, Nigeria. Jonathan Okechukwu Alimba (Ebonyi State University, Abakaliki, Ebonyi State, Nigeria
4.

Another example of how the Train One to Train Others practice of the Project Scholar program continued in first quarter of project year five and is gearing up for ground breaking work in Quarter 2.

R Training: The NAPP scholars based at MSU continued with their weekly tutelage under Dr. Michael Olabisi on the use of R as a free and open source statistical package for use in analysis of research. It is planned that these 3 scholars will join those scholars who earlier returned to Nigeria to conduct further R training to 1) Academic and Research Institutions and 2) various State government ministries once they return home. These two types of trainees require different training foci. The Academic and Research Institutions will use R for full-on data analysis. while the State ministries will make heavier use of R's plotting and other data display methods. Thus two different training manuals have been developed for the different audiences. The project is happy to observe that the receptiveness of and desire for R training is increasing in Nigeria. The project interactions with the Association of Deans of Agriculture in Nigeria (ADAN) to enquire about their interest in R revealed that all institutions contacted expressed interest in the R training.

Activity 1.4: Media engagement and Training at Federal and the State Level (Agricultural Communication and Policy Advocacy)

Media engagement

Fourth Quarter (July – September 2020)

On September 16 – 17, 2020, the project delivered a virtual training on Policy Communication to 11 journalists from the Feed the Future focus states, comprising of 5 males and 6 females. The training introduced the participants to the basic concepts of policy communications, the use of social media for both disseminating and tracking policy communications effectively and publicly available sources of information related to agricultural policy in the Nigerian context. As part of sustaining the capacity already built, the training was jointly facilitated with Daniel Atori and Olarenwaju Lawal, both previous beneficiaries of such training by the project. This helps to further support and strengthen their capacities for sustainability and lay foundation to encourage new beneficiaries in the project-led activities. The training is part of efforts by the project to enhance Nigeria's agricultural policy environment. It is expected that trainings such as this would equip stakeholders and players in the agricultural sector to advocate, share and use evidence to drive sound policymaking and implementation in the country.

Third Quarter (April – June 2020)

On May 27, 2020, Radio France International (RFI) published an article on President Buhari's call for increased agricultural production in the wake of COVID-19. The article cited the research undertaken by the project on the impacts of COVID-19 and featured comments from Dr. Kwaw Andam on the long-term strategies for import substitution and increasing agricultural productivity in Nigeria. The full news report is at https://www.rfi.fr/en/africa/20200527-nigeria-needs-to-increase-food-production-to-feed-itself-experts-say

- On June 21, 2020, Daily Trust Newspaper Reporter Vincent Yusuf engaged Dr. Oyinkan Tasie on Agriculture's contribution to GDP. The article has been published at https://www.dailytrust.com.ng/how-best-to-grow-agric-gdp-experts.html

- On June 25, 2020, the Bloomberg News interviewed Dr. Kwaw Andam for an upcoming article on Nigeria's food production and agricultural productivity.

Media coverage such as the three described above supports the policy project's efforts to promote evidence-based policymaking in the agriculture sector.

Second Quarter (January – March 2020)
Journalists are key players in the policymaking space which makes it essential for them to be well equipped with adequate knowledge/information to effectively drive public conversations around agricultural policy issues. On this basis, the project delivered a Policy Communications training to 20 (15 males, 5 females) journalists from various media houses (including print and television) in Delta State. The training, which took place in Asaba, Delta State on February 11-12, 2020 was jointly facilitated by Bisola Oyediran, Communications Assistant with the project and Daniel Atori, a Chief Correspondent at the New Telegraph Newspaper, Minna, Niger State. Mr. Atori was a beneficiary of earlier policy communications training delivered by the project in 2017 and 2018. The involvement of the earlier beneficiaries underscores the importance the project places on sustainability beyond its life. The training introduced participants to the concepts of policy communications, design and implementation of communication strategies and plans, use of social media for both disseminating and tracking agricultural policy communications in the Nigerian environment. It is therefore expected that trainings such as this would equip journalist to advocate, share and use evidence to influence sound policymaking and implementation in the state and the country at large.

First Quarter (October – December 2019)
There was no capacity building activity for the quarter under review per the Year 5 workplan. However, the review of training manual to further meet the demand of the target beneficiaries and all necessary arrangements for media-related activities due in the second quarter of Year 5 were concluded.

Activity 1.5: Engagement with non-government stakeholders (e.g. civil society, NGOs, and think tanks) with particular focus on FTF states

Fourth Quarter (July – September 2020)
On September 17, 2020, the project participated in the FY20 Fourth Quarter Global Food Security Strategy (GFSS) Stakeholders Meeting. Several GFSS stakeholders including IFPRI, USAID, FTF Implementing Partners (IPs), FMARD, farmer organisations and private sector actors attended the meeting tagged "Food and Nutrition Security: A Pathway to a resilient Nigeria". The meeting highlighted IPs achievements since the third GFSS meeting in May 2020, and how the COVID-19 Pandemic has impacted agriculture, food and nutrition-related activities of the various stakeholders in Nigeria. The meeting harped on various resilience strategies to strengthen Nigeria food systems pos-COVID. As part of its support to a resilient food system, the Policy Project shared findings from its researches on poverty and economic growth, food systems, value chains, and household nutrition

security. The project also highlighted its support to policy processes at both the federal and state levels including its works on value chain prioritization towards the development of Medium term National Development Plans (MTNDP), the Delta and Ebonyi States Agricultural Policy documents.

Third Quarter (April – June 2020)
On May 7, Dr. Saweda Liverpool-Tasie, was one of two speakers for an on-line discussion organized by the Nigerian Association of Agricultural Economists (NAAE). The title of the discussion was "Shaping Agricultural Research Post COVID-19). Prof Job Nmadu (Federal University of Technology, Minna and President NAAE) moderated the discussion. The other speaker was Prof. Adedayo Mussediku Shittu (Federal University of Agriculture, Abeokuta, Nigeria). Participants were from the Government Sector, Private Sector, Producer Groups, Civil Society as well as Research and Academic organizations. Through this session, the policy project was able to share insights from its research and "train one to train others" approach with the association's membership. This has led to further interactions and discussions on potential "research for policy" collaborations. https://www.canr.msu.edu/news/shaping-agricultural-research-post-covid-19.

On May 28, 2020, the project participated in the FY20 Third Quarter Global Food Security Strategy (GFSS) Stakeholders Meeting. Several GFSS stakeholders including IFPRI, USAID, FTF Implementing Partners (IPs) and FMARD attended. The meeting highlighted IPs achievements since the last GFSS meeting in Asaba, Delta State, and how the COVID-19 Pandemic has impacted USAID activities in Nigeria. Various innovations to mitigate the impacts of the pandemic by IPs were identified. The USAID mission director cited the project's analysis of COVID-19 impacts on Nigeria's economy and food systems during his opening remarks.

On June 4, Dr. Saweda Liverpool-Tasie presented NAPP research findings and collaborative approach to research for policy during the 181st Board for International Food and Agricultural Development's 181st Public Meeting on Food Security and Nutrition in the Context of COVID-19: Impacts and Interventions. As an advisory committee to USAID, Board for International Food and Agricultural Development (BIFAD) convened this virtual public meeting to share the thinking of leading experts in food security and nutrition that relates to COVID-19 impacts. The intention of the meeting was to help to support decision making by USAID and its partners and stakeholders working to advance food security, nutrition, and resilience at global, regional and national levels. The event had 562 people in attendance from all across the world. Presenting at this forum gave the policy project an opportunity to highlight the contributions that the policy project is making to support policy conversations in Nigeria and beyond and to strengthen capacity within Nigeria to do this. The event recording is found at https://www.youtube.com/watch?v=VuyzfO7mAkk&t=29s

On June 9, the project participated in the online workshop for scientists and stakeholders working on food safety issues in Nigeria organized by the Nigerian Institute of Food Science and Technology (NIFST) to commemorate the World Food Safety Day. Dr. Saweda Liverpool-Tasie and NAPP Scholar Ms. Adebowale were invited speakers/presenters at the event where they presented project research on Food Safety in Nigeria. This meeting brought together researchers, government agencies, civil society and private sector to discuss issues around Food Safety in Nigeria. Participating in this event (with over 100 participants) demonstrates how USAID's support to Nigerian Scholars (and for research related to food safety) is supporting strategies for linking research findings to stakeholders while promoting excellence in research. Specifically, the policy project (researchers and Scholars) presented scientific evidence on findings from research in Nigeria as well as the projects strategy of linking research to stakeholders (Nigerian households) through working with extension agents using

a trainer of trainer approach. This approach was favorably received and elicited good discussions during the event

On June 11, 2020, the project jointly organized a webinar with Accountability, Commitment, Innovation, Optimistic Excellence (ACIOE) Associates and Nigeria-America Chamber of Commerce on "Agricultural Supply Chain Situational Analysis and Post Pandemic Recovery Plans: National preparedness and the role of private sector". The webinar provided a platform for various stakeholders to evaluate the impacts of the COVID-19 pandemic on the agricultural supply chain side, and the various efforts by both government and private sector actors to mitigate these impacts. The workshop further highlighted the impact of the COVID – 19 pandemics on agricultural productivity, and role of private sector and government interventions in salvaging the situation post pandemics. Dr. Kwaw Andam presented a situational analysis titled "Impacts of COVID-19 on Agricultural Supply Systems" which highlighted COVID-19 economic costs (production, incomes, and poverty) and impacts, mainly indirect, on the agriculture sector. In attendance were the Governor of Kebbi State, His Excellency, Abukar A. Bagudu (co-chair of the Nigeria Food Security Council), Senator Abdullahi Adamu, Chairman of the Senate Committee on Agriculture and Rural Development, FMARD, Kebbi State Government, Ogun State Government, Central Bank of Nigeria, SAHEL Capital, Benue State University of Agric, Nigeria America Chamber of Commerce, ACIOE Associates, Media, FTF-Agribusiness and Investment Activity as well as the Nigeria Agribusiness Group (NABG).

On June 19, the policy project participated in an international webinar jointly organized by several donors including the International Fund for Agricultural Development (IFAD), the Food and Agriculture Organization of the UN (FAO), and the World Food Programme (WFP). Dr. Saweda Liverpool- Tasie was an invited speaker at the event where she presented on NAPP supported research applied to reflect on the impacts of COVID-19 on Food Security in Nigeria. It provided a feature of policy research being conducted in Nigeria under the Policy Project as a part of important conversations about how to ensure that policy research is being communicated and used by policy actors.

On Thursday, the 25th of June, 2020, the project in partnership with ACIOE Associates and the Nigerian American Chamber of Commerce (NACC), Kaduna State Branch held the second agricultural webinar series, titled "Recovery Efforts to Mitigate Agricultural Supply Chain Challenges: The Role of Agricultural Development Programs". In attendance were representatives from several organizations including the Media, AFEX Commodity Exchange Limited, European Union (EU)-Gesellschaft für Internationale Zusammenarbeit (GIZ) Nigeria Competitive Program, Feed the Future Nigeria Agribusiness and Investment Activity, FMARD, FAO, USAID-funded Feed the Future West Africa Trade and Investment Hub, IFPRI, ACIOE Associates, Nigeria America Chamber of Commerce, among other stakeholders in the agricultural sector.

Dr. Kwaw Andam delivered opening remarks on "Priorities for Agricultural Development Projects" to emphasize that Nigeria was already facing the triple burden of malnutrition resulting from poor dietary qualities across all income groups before the pandemic and COVID-19 may worsen these problems. As such, it is important for agricultural development programs to prioritize nutrition in their interventions programming, post the pandemic. Through this event, the project provided a platform for contributions and discussions with other USAID Feed the Future activities. The other panelists were Michael Clemens, Chief of Party, USAID West Africa Trade and Investment Hub; Adam Saffer, Chief of Party, feed the Future Nigeria Agribusiness and Investment Activity; Ana

Vinambres, Manager, EU Nigeria Competitiveness Programme; and Ayodeji Balogun, CEO, AFEX Commodities.

Second Quarter (January – March 2020)
The project continues to engage with the Association of Deans of Agriculture in Nigerian Universities (ADAN) in the execution of its activities targeted at stakeholders within the academic community in the FtF focus states. This engagement includes joint development of the schedule and implementation of capacity building activities for benefiting ADAN members within the FtF states. This collaboration aims to increase the reach of the project more broadly to the agriculture community in Nigeria.

First Quarter (October – December 2019)
The project continues to engage with the Association of Deans of Agriculture in Nigerian Universities (ADAN) in the execution of its activities targeted at stakeholders within the academic community in the FtF focus states. This engagement includes joint development of the schedule and implementation of capacity building activities for benefiting ADAN members within the FtF states. This collaboration aims to increase the reach of the project to more broadly agriculture community in Nigeria.

Over the last five years, the project has been supporting Nigerian research networks to build capacity of young Nigerian scholars and to generally increase the international recognition of Nigerian scholars. In this regard, the project (through the scholars program) supported the online publication of the Nigerian Journal of Agricultural Economics (Vol 2 (2011) – Volume 8 (2018)). First, a project scholar and his MSU faculty mentor uploaded the first few volumes in 2017. Then in 2018, the editorial board of the journal was trained and supported to put the journal online themselves. Just between October 2018 and November 2019 these articles have been downloaded over thirty-eight thousand (38,481) times.

Component 2: Policy driven collaborative research and analysis.

In Year 5, this component is building upon previous analyses on some of the key topics for which there is demand from the government (state or federal) and USAID to provide policy support through research. The goal is to further strengthen the project contributions towards evidence-based decision-making in agriculture and rural development policy. The development of the research topics, as contained in the workplan, is progressing and are at various stages as indicated below:

Activity 2.1. Food and Nutrition Security

2.1.1: The Impact of Agricultural Productivity Changes on Child Nutritional Outcomes

Fourth Quarter (July – September 2020)
This study explored the linkages between agricultural productivity change and child nutritional outcomes in Nigeria using LSMS panel data from Nigeria. The results show that agricultural productivity growth has a positive effect on child nutritional outcomes, measured by child height-forage and weight-for-age. The main channel through which agricultural productivity growth affects child nutritional outcomes is by increasing food production for own household consumption. This suggests that productivity-enhancing investments in the agricultural sector could have a direct impact on child nutritional outcomes among smallholder households in Nigeria. The results also show that agricultural productivity change has higher impact for households who have better access to markets

and a higher educational level. Interventions and policies geared towards intensification of agricultural production need to be complemented with strategies for widening educational programs and improving farmers' access to markets. to induce incentives for increased production.

In the quarter under review (April-June), the team published the paper as Nigeria Strategy Support Program (NSSP) working paper 62 (http://ebrary.ifpri.org/utils/getdownloaditem /collection/ p15738coll2/id/133706/filename/133706.pdf/mapsto/pdf. It is also submitted to Journal for review. Preparing policy brief and seminar presentation to FMARD, the Agricultural Policy Research Network (APRNet) and other stakeholder will be done in coming months.

Additional Food and Nutrition Security Activities within the Quarter

In the quarter under review, the team focused on contributing to the knowledgebase of the impacts of COVID-19 pandemic. Following this, two studies were completed as indicated below.

i.   Impacts of COVID-19 on Food Security: Panel Data Evidence from Nigeria

This paper combines pre-pandemic face-to-face survey data with follow up phone surveys collected in April-May 2020 to quantify the overall and differential impacts of COVID-19 on household food security, labor market participation and local food prices in Nigeria. We exploit spatial variation in exposure to COVID-19 related infections and lockdown measures along with temporal differences in our outcomes of interest using a difference-in-difference approach. We find that those households exposed to higher COVID-19 cases or mobility lockdowns experience a significant increase in measures of food insecurity. Examining possible transmission channels for this effect, we find that COVID-19 significantly reduces labor market participation and increases food prices. We find that impacts differ by economic activities and households. For instance, lockdown measures increased households' experience of food insecurity by 13 percentage points and reduced the probability of participation in non-farm business activities by 11 percentage points. These lockdown measures have smaller impacts on wage-related activities and farming activities. In terms of food security, households relying on non-farm businesses, poorer households, those with school-aged children, and those living in remote and conflicted-affected zones have experienced relatively larger deteriorations in food security. These findings can help inform immediate and medium-term policy responses, including social protection policies aiming at ameliorating the impacts of the pandemic, as well as guide targeting strategies of governments and international donor agencies by identifying the most impacted sub-populations. The paper is published as IFPRI Discussion Paper 01956 (https://www.ifpri.org /publication/impacts-covid-19-food-security-panel-data-evidence-nigeria). It is also submitted to Journal for review.

ii.   COVID-19, School Feeding Disruptions and Food Security: Evidence from Nigeria

This paper examines the impact of COVID-19-induced school closures and disruption of school feeding services on households' food security in Nigeria. We combine pre-COVID-19 face-to-face household survey with post-COVID-19 phone survey, along with subdistrict-level information on access to school feeding services. We use a difference-in-difference approach and examine temporal

trends in food security of households with access to school feeding services and those without access to these services. We find that disruption of school feeding services has significant impact on households' food security, suggesting that, in addition to the direct health and income effects, the pandemic had adversely affected households' food security by disrupting nutritional services. For example, disruption of school feeding services increases households' experience of food insecurity (probability of skipping a meal) by 9 percentage points. These impacts increase with the spread of the pandemic and associated government mobility restrictions. We also find heterogeneous impact of disruptions in school feedings services among various households. The results show that vulnerable households, including single mothers, poorer households, and those living remote areas experienced relatively larger deteriorations in food security because of the disruptions in school feeding services. These findings can help inform immediate and medium-term policy responses, including the design of social protection policies and alternative policies to substitute these nutritional services affected by the pandemic. The paper is being prepared for publication as NSSP working paper and for external peer-reviewed journal.

Third Quarter (April – June 2020)

This study explored the linkages between agricultural productivity change and child nutritional outcomes in Nigeria using Living Standards Measurement Study (LSMS) panel data from Nigeria. The results show that agricultural productivity growth has a positive effect on child nutritional outcomes, measured by child height-forage and weight-for-age. The main channel through which agricultural productivity growth affects child nutritional outcomes is by increasing food production for own household consumption. This suggests that productivity-enhancing investments in the agricultural sector could have a direct impact on child nutritional outcomes among smallholder households in Nigeria. The results also show that agricultural productivity change has higher impact for households who have better access to markets and a higher educational level. Interventions and policies geared towards intensification of agricultural production need to be complemented, with strategies for widening educational programs and improving farmers' access to markets, to induce incentives for increased production.

In the quarter under review (April-June), the team published the paper as Nigeria Strategy Support Program (NSSP) working paper 62 (http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/133706/filename/133706.pdf/mapsto/pdf). It is also submitted to a Journal for review. Preparing policy brief and Seminar presentation to FMARD, APRNet and other stakeholder will be done in coming months.

Second Quarter (January – March 2020)

This study has explored the linkages between agricultural productivity change and child nutritional outcomes in Nigeria using LSMS panel data from Nigeria. In the quarter under review (January - March), the team re-estimated the econometric models based on a new concept (Growing Degree Days) identified which effectively captures the linkages of the two key variables (agricultural productivity change and child nutritional outcomes). Additionally, the team worked on the revised version of the review of relevant literature. The team has discussed the results generated from the study and recommended policy options based on the findings. Based on the aforementioned, we have a first draft of a Working Paper currently under review.

First Quarter (October – December 2020)
This study aims to explore the linkages between agricultural productivity change and child nutritional outcome in Nigeria using LSMS panel data from Nigeria. The study will also examine the distributional implication of agricultural productivity change among rural vs. urban households and across geographical zones. The study is expected to provide an important evidence for designing policies intended to improve agricultural productivity that can reduce child undernutrition. In the quarter under review, the development of the conceptual framework, cleaning of data and collection of secondary data of the paper were completed; organization and review of relevant literature and methodology sections of the paper were achieved, and draft of both descriptive and econometric results are ready.

2.1.2: Differences and drivers of rural-rural vs rural-urban youth migration

Fourth Quarter (July – September 2020)
The first draft analysis of this paper is completed and presented to participants from FMARD and the Agricultural Policy Research Network (APRNet). There are relatively few quantitatively oriented studies of migration which explicitly focus on destination decisions, particularly in Africa. This study used nationally representative survey data from Nigeria to study how young migrants respond to observable characteristics of potential destinations and how these responses vary across various forms of migration. The study show that young migrants' choice of destination is negatively affected by cost of living in potential destinations while positively affected by welfare, land availability and urban intensity in potential destinations. However, the response of young migrants to observable characteristics of potential destinations varies across migration flow types (e.g., rural-rural versus rural-urban), duration of migration (temporary versus permanent) and socioeconomic status (poor versus non-poor). For instance, rural-rural migrants are more responsive to land availability and agricultural potential, while rural-urban migrants are more responsive to welfare and urban intensity in potential destinations.

The team will prepare a draft policy brief and working paper to be published as Nigeria Strategy Support Program (NSSP) policy brief and working paper. The paper has been submitted to journal.

Third Quarter (April – June 2020)
The first draft analysis of this paper is completed and was presented to participants from FMARD and APRNet in early July. There are relatively few quantitatively oriented studies of migration, which explicitly focus on destination decisions, particularly in Africa. This study used nationally representative survey data from Nigeria to study how young migrants respond to observable characteristics of potential destinations and how these responses vary across various forms of migration. The study shows that young migrants' choice of destination is negatively affected by cost of living in potential destinations while positively affected by welfare, land availability and urban intensity in potential destinations.

However, the response of young migrants to observable characteristics of potential destinations varies across migration flow types (e.g., rural-rural versus rural-urban), duration of migration (temporary versus permanent) and socioeconomic status (poor versus non-poor). For instance, rural-rural migrants are more responsive to land availability and agricultural potential, while rural-urban migrants

are more responsive to welfare and urban intensity in potential destinations. The team will prepare a draft policy brief and working paper.

Second Quarter (January – March)
This study has explored drivers that attract (pull) youth migrants in Nigeria using LSMS panel data from Nigeria. In the quarter under review (January - March), we re-estimated the econometric models based on a new concept of dyadic regression which effectively captures the migrant choice destination using difference in urban growth, land availability and living expense between migrant origin and destination before migration takes place. Additionally, we have worked on the revised version of the review of relevant literature. We have discussed the results generated from the study. We will produce a first draft of a Working Paper to be submitted for a review by end of April.

First Quarter (October – December 2019)
The study aims to explain the differences and drivers of rural-rural and rural-urban migration to better understand the differing patterns in the two routes of migration to inform policy-makers of potential shifts in labor force composition. Our analysis will be organized around three questions. First, why does rural-rural migration occur? Second, what differences between the origin and destination explain this? Third, how could policy makers redirect rural-urban to rural-rural migration as an approach for reducing youth unemployment and social tensions in congested cities and urban areas? So far, the following progress to achieve the objectives of the research topic have been made: 1) the conceptual framework, data cleaning and collection of secondary data of the paper was completed; 2) we have also organized review of relevant literature and empirical strategy sections of the paper; and 3) draft results are ready, and we are currently working on draft write-up of results.

2.1.3 Analysis of Food Consumption Patterns and Policy Options for Improving Food and Nutrition Security in Nigeria

Fourth Quarter (July – September 2020)
The team was able to catch-up on the delays in the analysis caused by the work disruptions from the COVID-19 pandemic. To follow up on the last progress report, the outstanding outputs of this activity according to the Year-5 Workplan are a research paper (Output 1) and a worksheet with income and price elasticities of food demands (Output 3). The research paper was submitted to the Applied Economic Perspectives and Policy journal and is currently under review. The team expects to receive comments from the journal editor and reviewers soon, which will be addressed during the next quarter. The worksheet with the elasticities is largely completed and only require some formatting for better user accessibility. Both the findings of the research paper and the elasticity estimates will also be used as inputs into a joint workshop with FMARD that aims at understanding federal and state-level policy perspectives and developing scenarios for federal-state coordinated policy actions for transforming food systems. The workshop is scheduled to take place in December 2020 and is funded by a project that complements the research conducted under this Activity.

Third Quarter (April – June 2020)
The work progress of the analysis is well advanced and within the timeline of the workplan, extended until the project end in September. The econometric analysis (planned for Q2) was completed. According to the workplan, the sub-activities for Q3 are to conduct policy scenario analysis and produce outputs. The workplan further specifies the component as follows: "(3) The scenario analysis will use these data and information from FMARD and other ministries to estimate the likely food

demand and dietary effects of specific policy options to assess their relative effectiveness." This scenario analysis will be placed within the context of the ongoing COVID-19 crisis, given the demand for related policy analyses voiced by the Nigerian government and development partners. Specifically, in addition to quantifying the (economic) impact of the lockdown on household food consumption and dietary adequacy, the analysis will examine policies and investments regarding their effectiveness for recovery and associated food demand and dietary effects in the medium-term.

The outstanding outputs specified in the workplan are: (1) research paper, (2) policy note, and (4) worksheet with elasticities. (Output 3, i.e. workshop presentation, was already delivered in Q2.) The draft of the research paper is in preparation. The policy note was published in April as Policy Research Brief 119 of the Feed the Future Innovation Lab for Food Security Policy, entitled "Poor Dietary Quality is Nigeria's Key Nutrition Problem" (https://www.canr.msu.edu/resources/poor-dietary-quality-is-nigeria-s-key-nutrition-problem). The policy note was coauthored with Raphael Babatunde, Associate Professor in the Department of Agricultural Economics and Farm Management at the University of Ilorin, Ilorin, Kwara State. The worksheet with the elasticities is ready and will be released with the publication of the research paper.

Second Quarter (January – March 2020)
The work progress of the analysis is well advanced, but it is slightly behind the timeline of the workplan because of work challenges related to the lockdown and travel restrictions due to the Covid-19 pandemic. According to the workplan, the sub-activities for Q1 and Q2 are to conduct descriptive and econometric analyses. The work plan further specifies the components as follows: "(1) The descriptive analysis will document food consumption patterns by agricultural seasons in urban and rural areas in North and South Nigeria, as well as by economic strata (with a focus on the poor). (2) The econometric analysis will use Quadratic Almost Ideal Demand System models to estimate income and price elasticities." The descriptive analysis was completed in Q1. The estimations for the econometric analysis are nearly completed.

The outputs specified in the workplan include a policy note (Output 2) and a workshop presentation (Output 3). The Activity Leader Olivier Ecker and team prepared a draft policy note to be published as Policy Research Brief (Feed the Future Innovation Lab for Food Security Policy). The draft draws from the descriptive analysis of this Activity. The draft is expected to enter the publication process within the next two weeks. Olivier Ecker also prepared and delivered a virtual presentation (entitled "Diets, Food Systems, and Agriculture-Nutrition Linkages") for the USAID/Nigeria and Partners Nutrition Interactive Workshop on February 19, 2020. The presentation summarized some of the key results of the Activity's analysis. Olivier Ecker's contribution was greatly appreciated by the workshop participants and acknowledged by USAID/Nigeria (see Annex G)

First Quarter (October – December 2020)
The work progress of the study is on time. As described in the work plan, in Q1 and Q2 the team conducted the descriptive and econometric analyses that are the first two (out of three) components of the proposed work. The work plan further specifies the components as follows: "(1) The descriptive analysis will document food consumption patterns by agricultural seasons in urban and rural areas in North and South Nigeria, as well as by economic strata (with a focus on the poor). (2) The econometric analysis will use Quadratic Almost Ideal Demand System models to estimate income and price elasticities." The descriptive analysis is completed. The estimations for the econometric analysis are underway and expected to be completed in Q2.

2.1.4 Impact of smallholder farmers' commercial orientation on rural economic development

Fourth Quarter (July – September 2020)
This research is now being finalized. In early 2020, we used the GHSP-3 from 2015/16 to develop a three-category household typology of all households in the panel survey sample that engaged in any agricultural production in the year prior to being surveyed. For our indicator of the commercial orientation of households engaged in agricultural production, we used the share of the value of all crops reported produced by the household that were sold. A population-weighted analysis was done of the characteristics of households in each category. The initial results of this analysis were described in the project report for the second quarter of FY2020 (Jan - Mar 2020). We also used the GHSP-1 survey round from 2010/11 to examine what characteristics of these households at that time might have resulted in their becoming more or less commercially oriented in their agricultural production. Finally, we undertook a crop-specific analysis of the GHSP-3 data on primarily household determinants of commercial orientation in the production of 12 crops – maize, rice, sorghum, millet, cowpea, groundnut, yam, sweet potato, cassava, banana, cocoa, and soyabean.

We find that the commercial orientation of most smallholder farmers in Nigeria is not strong. Fully one-third reported not making any sales of their crops, relying instead on household enterprises or wage employment to meet their cash needs. For many, any crop sales made seemed to reflect limited alternative options to obtain cash, rather than being part of a strategy of commercial production. In the analyses, significant factors associated with farming households not selling or reducing the share of their produce that they sell were identified much more commonly than those that might drive households to consistently sell a significant share of their output or increase the share sold. A subsistence orientation still drives most production by smallholder households in Nigeria. The crop-specific analyses confirm that sales of many of the crops examined for most households are driven in part by their lack of other income sources, rather than by actively seeking to produce significant commercial surpluses of the crop.

That this is the case reflects a range of deficiencies in the institutional and technical frameworks supporting the production and marketing of many of the crops examined. Improved production technologies for many of the crops are not used, may not be readily available, or, if available, may prove challenging to employ profitably. Nigerian crop markets remain risky with no assurances that farmers will find buyers offering remunerative prices when they bring their produce to the market to sell. Continued investments to increase crop productivity and to improve the performance and reliability of crop value chains are needed if commercial considerations are to increasingly drive the crop choices of smallholder farmers and provide incentives for higher crop productivity.

A detailed report on this research will be published in November 2020 as a Nigeria Strategy Support Program Working Paper.

Third Quarter (April – June 2020)
In early 2020, we used the Nigeria General Household Survey Panel (GHSP)-3 from 2015/16 to develop a three-category household typology of all households in the panel survey sample that engaged in any agricultural production in the year prior to being surveyed. Of the 5,000 households in survey sample, 2,576 in the GHSP-3 survey round engaged in some sort of agricultural production in the previous year. For our indicator of the commercial orientation of households engaged in agricultural production, we used the share of the value of all crops reported produced by the household that were sold.

A population-weighted analysis was done of the characteristics of households in each category. The results of this analysis were described in the project report for the second quarter of FY2020 (Jan - Mar 2020). We also examined the degree to which households move over time between the three agricultural commercialization categories or out of agriculture altogether. This was done by categorizing the panel survey household in each of the three rounds of the GHSP. We have also organized literature review that will help us to interpret the econometric results.

This analysis did not advance in Q3, the period reported upon here. However, with a view to wind-up the research by mid-September, work in Q4 over the next month or so will focus on multivariate analyses of the survey data to explore some of the relationships observed in the earlier tabulations.

Second Quarter (January – March 2020)
The objective of this analysis is to empirically assess the importance of commercially oriented smallholder farming households for agricultural and rural economic development. A household typology based on the commercial orientation of agricultural households has been developed to categorize sample households in the Nigeria General Household Survey Panel (GHSP) series. Of the GHSP datasets, we have focused on the GHSP-3 from 2015/16. For our indicator of the commercial orientation of households engaged in agricultural production, we used the share of the value of all crops reported produced by the household that were sold. Three agricultural commercialization categories were created:

- Those households that reported <u>no sales</u> of the crops they produced,
- Those that <u>sold</u> some crops, but <u>less than one-third</u> of their value, and
- Those that <u>sold more than one-third</u> of the value of the crops they produced.

Disaggregating the agricultural households by geo-political zone, agricultural households are more likely to be commercially oriented in the Southeast and Southwest zones. Subsistence orientation is the dominant orientation of agricultural households in the Northwest, which also has the highest share of agricultural households in Nigeria. Households with a somewhat-commercial orientation are the largest category in North Central and Northeast zones. The three categories are of similar size in the South-South zone, which, like Southwest, has a relatively small share of agricultural households.

In terms of the crops produced by each category of agricultural households, subsistence households are significantly less likely than farmers in the commercial categories to produce maize, rice, yam, cassava, and banana and more likely to produce millet. Somewhat-commercial households are significantly more likely than commercially oriented households to produce sorghum, millet, cowpea, groundnut, and cassava and less likely to produce sweet potato and cocoa. There are no significant differences in the share of households in the two commercial categories that produce maize, rice, yam, banana, and soybean.

The final analysis completed to date was to examine the degree to which households move over time between the three agricultural commercialization categories or out of agriculture altogether. This was done by categorizing the panel survey household in each of the three rounds of the GHSP. We find that there was considerable movement into other categories in earlier survey years for agricultural households in the somewhat-commercial category in 2015/16. However, households in the subsistence category in 2015/16 were more likely to have been in the same category in 2010/11 and 2012/13 than in other categories. A similar pattern is seen for commercially oriented households in 2015/16.

Three additional analysis will be done in coming months:

1. What characteristics are associated with households in each household typology category and which household types are most likely to be involved in selected agricultural commodity value chains?
2. What factors might be associated with households increasing or decreasing their level of commercial production over time?
3. We will examine the participation of households, disaggregated by commercialization category, in three or four agricultural commodity value chains. Our interest in doing so is to better understand how and why these different types of rural households are able to exploit or, alternatively, are excluded from participating in strengthened value chains for these commodities.

First Quarter (October – December 2020)

The principal work so far has been to investigate the data sets that might be used for the analysis. The Nigeria General Household
Survey – Panel (GHS-P) survey series offers the best way to obtain a national perspective on the commercial orientation of rural households across Nigeria, as well as permitting some assessment to be made as to how this orientation may change over time.

The GHSP-3 dataset from 2015/16 will be used for the principal analyses both for household characterization and to examine the characteristics associated with each household type. This data set has information on 3,172 rural households resident in 296 enumeration areas (EA) across Nigeria (Figure 1).
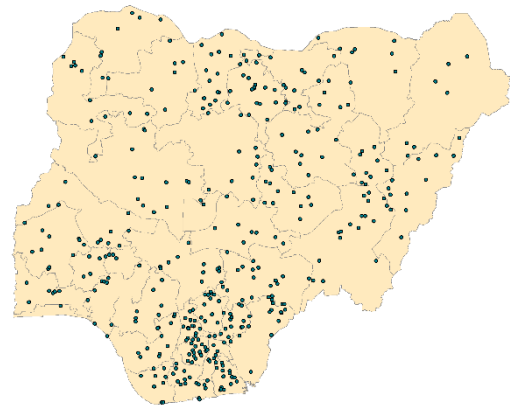

Figure 1. Location of enumeration areas of the General Household Survey-Panel (2015/16)

Of interest in this analysis will be the degree to which rural households that are not commercially oriented in their farming rely upon non-farm livelihood strategies and what factors enable them to pursue those livelihoods. Is the welfare level of these households superior to commercially oriented farming households? Once the analysis is completed, if feasible, similar analyses will be done with the two earlier panel survey rounds to evaluate whether any changes can be observed over time in what characteristics may drive households to be more commercially oriented in their farming activities.

The commodity value chains to be examined once the household typology work is completed will be drawn from the eleven crops listed above. All eleven crops will be examined in order to determine for which three or four crops additional analysis may provide useful insights as to how the pool of farmers who participate in the value chains for those crops might be expanded for greater impact on agricultural and rural economic development. The team will complete a report on the analyses by end of Q2.

Activity 2.2 Constraints and Opportunities in a Key Value Chain (Aquaculture)

Fourth Quarter (July – September 2020)

Due to the disruptions from COVID-19, the fieldwork for this study could not be conducted as planned. However, during this quarter the research team put in place a contingency plan to conduct

key informant interviews by phone. The field team conducted the interviews successfully with 25 respondents including researchers, representatives from the Department of Fisheries, Cross River State Ministry of Agriculture, cooperative association representatives, fish farmers, cold storage operators, processors and marketers, and feed millers.

Third Quarter (April – June 2020)

Due to the disruptions from COVID-19, the fieldwork for this study could not be conducted as planned. However, during this quarter the research team put in place a contingency plan to conduct key informant interviews by phone. The field team conducted the interviews successfully with 25 respondents including researchers, representatives from the Department of Fisheries, Cross River State Ministry of Agriculture, cooperative association representatives, fish farmers, cold storage operators, processors and marketers, and feed millers. We have used the findings to prepare a draft working paper, which will be published by September 2020.

Second Quarter (January – March 2020

In this quarter (Q2), the literature review was completed, and some secondary data analyzed. This informed the need for a key informant interviews (KIIs) and a focus group discussion (FGD) with aquaculture stakeholders in Cross River State where the study is being carried out. Interview guide was developed and selected key informants across the aquaculture value chains are being interviewed via the telephone amidst the lockdown in the major cities in Nigeria. It was not possible to have focus group discussion with more value chain actors and on-site visit as previously planned as a result of the global COVID-19 pandemic. Notes from the interviews are being synthesized, and a value chain mapping approach is being used as a tool to guide the assessment of the sector.

Preliminarily understating from the interviews shows that farmers require more knowledge and skills in fish production management techniques, fish breeding, and feeds formulation with locally available materials. Extension services to fish farmers are limited in the state, with few successes in farm practices and productivity largely credited to the presence of development partners. A sustainable growth in the sector will be predicated upon a public policy for more robust extension service delivery.

First Quarter (October – December 2019)

This study focuses on aquaculture, which is a value chain that could represent the move towards Nigeria's policy goal of operating 'agriculture as a business' if extension services for farmers could be improved. Some subsectors of the aquaculture value chain are profitable, but at the same time key problems remain, including lack of farm management skills, inadequate supply of good quality feed, capital constraints, high cost of feed, and unreliable markets for final products. In Q1 the focus was on gathering and reviewing relevant literature for this topic, focusing on two African countries, Egypt and Ghana, where the aquaculture value chain is operated under conditions fairly similar to those pertaining in Nigeria. In Q2, the research team will conduct to identify the main points where extension services can make incremental improvements in farm practices and productivity.

2.3.1 Micro-level analyses on the impacts of agricultural public investments on selected indicators of broad development outcomes

Fourth Quarter (July – September 2020)

During this quarter, we completed the two papers which investigated the household-level agricultural and welfare effects of subnational public-expenditures on agriculture, using LSMS-ISA data ((2010/11, 2012/13, 2015/16 and 2018/19)) and the data on State and LGA-level public expenditure data described in the previous quarters' progress reports. These two papers have been published as IFPRI Discussion Papers (Takeshima et al. 2020a, 2020b).

These studies suggested that increasing the subnational public-expenditure on agriculture generally leads to increased consumption, reduced poverty, increased investments in non-farm businesses, nutritional outcomes like household dietary diversity, through the effects on agricultural production and productivity growth. The positive effects also included those on certain aspects of resilience, such as economic flexibility in switching between non-farm activities and farming activities, which can be instrumental in coping with uncertainty in agri-food markets due to COVID-19 and the government's responses to it. Further robustness-check analyses were conducted by also controlling for public-expenditures on other key social-sector, such as health, education and social welfare. The findings suggested that the roles of public-expenditure on agriculture have had equally, or perhaps relatively broader impacts on household-level welfare outcomes, than these other social-sector public-expenditures. These findings have potentially important implications, especially for countries like Nigeria, where the share of public-expenditure on agriculture has been relatively lower than those on other social-sector functions. Some of these findings have also been shared with other development partners like the World Bank team, in addition to the government officials to whom results were communicated at the seminar in May 2020.

Takeshima H, B Balana, J Smart, HO Edeh, MA Oyeyemi & KS Andam. (2020a). *Effects of public expenditures on agriculture at subnational levels on households' welfare and economic resilience in Nigeria*. IFPRI DP 01955 (https://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/133854/filename/ 134066.pdf).

Takeshima H, J Smart, HO Edeh, MA Oyeyemi, B Balana & KS Andam. (2020b). *Public Expenditures on Agriculture at Subnational-Levels and Household-Level Agricultural Outcomes in Nigeria*. IFPRI DP 01952 (https://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/133848/filename/ 134059.pdf).

Third Quarter (April – June 2020)

During this quarter, further progress has been made on the empirical analyses of using Living Standards Measurement Study - Integrated Surveys (LSMS-ISA) data ((2010/11, 2012/13, 2015/16 and 2018/19)) and the data on State and LGA-level public expenditure data described in the previous quarters' progress reports. The working-paper versions of two studies have been completed, one for the effects on household-level agricultural outcomes, and the other for the effects on household welfare and economic resilience, and have been submitted to the IFPRI Discussion Paper series. These two papers have also been presented at the virtual seminar on May 14 (see sub-activity 3.1.1 for more details on the seminar), where feedbacks were received from various Nigerian stakeholders. These comments have also been incorporated into the final working-paper versions that have been submitted.

The findings of the studies suggest that increasing the share of public spending allocated to the agricultural sector (while maintaining the total size of public spending) between 2008 – 2015 has significantly positively affected the agricultural production, adoptions of modern inputs, access to public extension services. Furthermore, a greater share of public expenditure allocated to the agricultural sector has also positively affected overall economic outcomes of the household, including overall household-level consumption, poverty reduction, capital investments for nonfarm household enterprises, and dietary diversity. These findings are consistent with the hypothesis that greater public support for the agricultural sector can have broader economic benefits. Lastly, the paper also incorporated analyses on economic resilience, which may have potential implications on the COVID-19 pandemic. Specifically, the study finds that public expenditures on agriculture may also help smallholders' flexibility across farming activities and nonfarm activities, which can be instrumental in coping with uncertainty in agri-food markets due to COVID-19.

Second Quarter (January – March 2020)
During this quarter, significant progress has been made on the empirical analyses using LSMS-ISA data ((2010/11, 2012/13, and 2015/16)) and the data on State and LGA-level public expenditure described in the previous quarter's progress report. Preliminary analyses suggest a number of findings that are robust and are likely to be similar in the final results. Specifically, fairly robust results have been found so far, which indicate that both the size of public expenditures and the share of spending allocated to agricultural sector between 2008 – 2015 have significantly positively affected the agricultural production, adoption of modern inputs, and access to public extension services. Furthermore, greater public expenditure and greater expenditure share allocated to agricultural sector have also positively affected overall economic outcomes of the household, including overall household-level consumption, as well as capital investments for non-farm household enterprises. These findings are consistent with the hypotheses that greater public support for the agricultural sector can have broader economic benefits. Differential effects between the size of expenditure and the agriculture's share within expenditure have also been observed. In some cases, the share has significant effect, but the size has insignificant effects. These indicate that the theory of Ricardian Equivalence holds, where increased public spending has no effect because households understand that such increase in public spending must be financed by future increase in taxes. Altogether, these findings so far have provided important insights that also contribute to the literature on public expenditure. More in-depth analyses are on-going, which estimate more disaggregated effects (for example, the effects of spending by state vs. spending by LGAs, recurrent expenditure vs. capital expenditure, effects of spending by neighboring LGAs, etc.). The analyses will be completed in the next quarter.

First Quarter (October – December 2020)
During this quarter, in-depth literature review has been conducted on studies that investigated similar micro-level variations in returns to public expenditures in agriculture and other sectors in other African countries (including IFPRI's previous work in Uganda, Ghana, Tanzania, and Rwanda) where economic conditions are similar to those in Nigeria. Based on the literature review, key hypotheses and policy questions are being refined, and analytical approaches are being developed. Building on the earlier work done by IFPRI researchers, micro-level household data on various agricultural outcomes and other economic outcomes have also been further constructed using the three waves of LSMS-ISA data, and the set of GIS spatial data on agroecological variables (climate, hydrology, soils, topography), have also been expanded.

Furthermore, data on public expenditures, compiled for previous years' research activities by IFPRI from various sources including the Central Bank of Nigeria, have been further processed, to match

the LGAs and survey timing of the three rounds of LSMS-ISA data (LGAs where the interviewed households are located). These data capture only the aggregate expenditures on the agricultural sector (typically combining Agriculture, Forestry, Fishing & Hunting), and do not distinguish spending on different functions within the agricultural purposes. However, these data still capture important variations in agricultural expenditure at the LGA level, for the periods corresponding to before and around the timing when three waves of LSMS-ISA data were collected (2010/11, 2012/13, and 2015/16). Combining the aforementioned household-level data and these state/LGA level expenditure data, the analyses are currently being conducted, examining how public expenditures in agriculture at both the state and the LGA (including those in neighboring LGAs) have affected various agricultural and non-agricultural outcomes of the households, given their exogenous characteristics.

2.3.2 Credit Access and Agricultural Technology Adoption

Fourth Quarter (July – September 2020)
During this quarter, two papers were completed and published in line with the previous quarters' progress reports. These two papers are an IFPRI Working Paper and Policy Note (Bedru et al. 2020a, 2020b). The study examines the nature of credit constraints among smallholder farmers – whether smallholders are credit constrained or not and the extent to which credit constraints emanate from supply-side or demand-side factors. Using data from the 2018/19 Living Standards Measurement Study-Integrated Surveys on Agriculture (LSMS-ISA) for Nigeria, the study investigates the factors affecting credit access and the effects of these credit constraints on adoption of four agricultural technologies – inorganic fertilizer, improved seed, agrochemicals, and mechanization. The results show that about 27 percent of survey households were found to be credit constrained – 12.8 percent due to supply-side factors and 14.2 percent due to demand-side factors. Lack of access to information and communication technology, extension services, and insurance coverage are the major demand-side factors negatively affecting smallholder's access to credit. Registered land tiles and livestock ownership enhance credit access. Credit constraints manifests themselves differentially on the adoption of different agricultural technologies. While adoption of inorganic fertilizer and improved seed are significantly affected by credit constraints from both the supply and the demand-sides; use of agricultural machinery is affected only by demand-side factors, while use of agrochemicals is not affected from either supply or demand-side credit factors. From a policy perspective, our findings indicate that improving credit access via supply-side interventions alone may not necessarily boost use of modern agricultural technologies by smallholder farmers in Nigeria. Demand-side factors, such as access to information, extension services, and insurance cover, should equally be addressed to mitigate the credit constraints faced by smallholders and increase their adoption of modern agricultural technologies and improve their productivity.

Public engagement through workshop presentation earlier planned for July 2020 could not hold due to COVID-19 associated challenges. As the situation improves, the dissemination activity is now planned for December 2020.

Balana, Bedru; and Oyeyemi, Motunrayo. 2020a. Credit constraints and agricultural technology adoption: Evidence from Nigeria. NSSP Working Paper 64. Washington, DC: International Food Policy Research Institute (IFPRI). ([https://ebrary.ifpri.org/utils/getfile/collection/p15738coll2 /id/133937/filename/134147.pdf](https://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/133937/filename/134147.pdf))
Balana, Bedru; Oyeyemi, Motunrayo; and Benson, Todd. 2020b. Do credit constraints affect agricultural technology adoption? Evidence from Nigeria. NSSP Policy Note 53. Washington,

DC: International Food Policy Research Institute (IFPRI). https://ebrary.ifpri.org/utils /getfile /collection/p15738coll2/id/134000/filename/134211.pdf

Third Quarter (April – June 2020)
The work on this research topic is now progressing following the delays on planned field activities posed by the COVID-19 pandemic challenges. Within the quarter under review, the most recent (Wave 4 – 2018/19) LSMS-ISA survey data was organized and cleaned. Further, the descriptive analysis of key factors (smallholder's characteristics against the credit constraint status) completed, and results of the econometric analyses (determinants of credit constraints and the effects of credit constraints on adoption of four agricultural technologies: inorganic fertilizer, mechanization, improved seeds, and use of agrochemicals) completed. The research output, a Working Paper, titled "Credit Constraints and Agricultural Technology Adoption: Evidence from Nigeria" is now drafted. Public engagement through workshop presentation and the submission for review of the draft Working Paper is planned for July 2020.

Second Quarter (January – March 2020)
Household survey for primary data collection and analysis was planned in Q2 and the first few weeks of Q3. Questionnaire development was completed; the questionnaire was inputted into the CAPI (CSPro software program); field preparation (sampling design was completed; identification of enumerators and local field facilitators in four selected States were completed). Due to the COVID-19 disruption, field work could not proceed as planned. Currently, the project is exploring the potential utilization of LSMS-ISA survey data in Nigeria (esp. Waves 2 and 3) and other relevant secondary data from various sources and examining the most recent LSMS Wave 4 data for possible ways to potentially utilize the data, and also developing STATA 'do files' for later use, and preparing the CSpro program for use at any time when the situation allows for field work.

First Quarter (October – December 2019)
This study aims to understand the nature of credit constraints and credit-rationing mechanisms among stallholders and to identify multiple forms of credit constraints in agricultural technology adoption. The two key research questions are: (1) What are the different forms of credit constraints facing smallholder farmers? & (2) What are the effects of credit constraints on agricultural technology adoption?

In Q1, the team has conducted a comprehensive literature review. Credit constraint to smallholders is often associated with either absence of accessible credit sources or high cost of borrowing. Our literature review shows that other factors such as risk-behavior, collateral requirements, absence of business opportunities and transactions costs play important roles in credit markets and credit-rationing to smallholder borrowers. The team also made progress on methodology, producing a draft primary data collection instrument (questionnaire) and identifying secondary data sources (mainly LSMS survey). In Q2 the team is developing the analytical approach and empirical econometric model, finalizing the questionnaire and collecting field data for analysis and writing.

2.3.3 Gap analysis and investment plan for extension reform

Fourth Quarter (July – September 2020)

For the reporting quarter, NSSP worked with the two states – Kebbi and Ebonyi for further exploring the opportunities, constraints and challenges for the implementation of the National Agricultural Extension Policy (NAEP) at the state levels. Similar exercises were conducted earlier with the Niger and the Cross River states in 2019 and two discussion papers were prepared to document the results and follow up activities. The consultations with the Kebbi state revealed that while there is political will for translating the national policy into state level strategies the institutional capacity for such efforts is grossly missing. However, the existing professional in the state ministry of agriculture could be trained to analyze the investment gaps and tracking the programmatic actions for the implementation of the NAEP. Similar exercise was conducted with the Ebonyi state were the FMARD official also participated. The results of these consultation are currently analyzed.

In addition, the NSSP worked with NAERLS for developing consensus on a national level agricultural extension workshop that will help the national taskforce to identify the opportunities for the innovations in the last mile delivery of the extension through various models. Alliance for a Green Revolution in Africa (AGRA), FMARD, and the National Farmers' Association will jointly organize this event during the end of October.

Third Quarter (April – June 2020)

During the quarter under review, two research papers focused on issues, challenges, and potential solutions and opportunities in implementing Nigeria's National Extension Policy in the Niger state and Cross River state, respectively were completed. For the Niger paper, a multi-stakeholder consultation process was used to identify key issues and challenges. Some key challenges identified through this process include a lack of proficient, motivated, and well-trained extension staff and a high degree of ineffective coordination and linkages between private and public sector in the state. Key recommendations that emerged from this process include strengthening different actors' capacities for innovation by considering the complexity of agricultural innovation system and ensuring networking, partnership facilitation, and collaboration for operative and systematic implementation of the policy at the state level. Overall, a state-level or case-specific focus is highly recommended for operational implementation process in Nigeria. The research output emanating from Niger state activity is now published as IFPRI Discussion Paper 01942 with the title, "National Extension Policy and State Level Implementation: the case of Niger State in Nigeria (https://ebrary.ifpri.org/digital/collection/p15738coll2/id/133780).

For the Cross River state paper, a multi-stakeholder consultation process and descriptive statistical analysis were used to identify key issues and challenges. Some key challenges identified include low access to agricultural extension service across commodities and their respective values chains and lack of sufficient funding for extension services in Cross River State. We also document interesting insights from the multi-stakeholder consultation process. Key recommendations include collaboration and partnership between private and public extension service, and funding agricultural extension services through decentralization, involvement of farmers' associations and NGOs, contracting-out of extension services, public private partnerships, privatization, and embedding advisory services in other types of contracts. A Discussion Paper for Cross River state is currently under review.

Currently, engagements with several institutions including National Agricultural Extension and Research Liaison Services (NAERLS), AGRA, and FMARD to disseminate the research findings from

the Niger and Cross River state papers are ongoing. The next step is to narrow down a specific focus area within agriculture extension services for further research and engagement.

Second Quarter (January – March 2020)
The team continued its engagement with the National Agricultural Extension and Research Liaison Services, Ahmadu Bello University and the Federal Department of Agricultural Extension (FDAE) and other relevant stakeholders towards sharing of the results from the state level extension implementation of national extension policies. It has also planned to conduct state level consultations in the remaining two states (Ebonyi and Kebbi states). Due to the incidence of COVID-19 and consequential restrictions, it couldn't visit the states, and this has been postponed till Q3 depending on the lift of the restrictions. In Q2, the team revised and improved the initial zero drafts prepared in Q1 which contain concise and synthesized recommendations on the best approaches and strategies for implementation of the National Extension Policies at the state level. The final draft of the Discussion Paper will be submitted in first few weeks of Q3. Additionally, during the quarter under review, the team has been involved in the planning of high-level outreach event on Agricultural Extension in Nigeria which will focus on Grassroots Extension Approach and Public-Private extension process. Also, this event has been put on hold in the meantime due to the novel COVID-19 pandemic.

First Quarter (October – December 2019)
In Q1, the team has followed up on the consultation workshop in Niger and Cross River states. The project met with the representative of FMARD, Federal Department of Agricultural Extension (FDAE) and other relevant stakeholders to update and brief them about the findings of the consultation process in Niger and Cross River State on the 25th of October, 2019. The project also participated and presented the findings of the Niger state and Cross River state consultative process in two high profile events organized by the National Agricultural Extension and Research Liaison Services, Ahmadu Bello University. One of them was the 2019 National Agricultural Extension Review and Planning Meeting (NAERPM) held 2nd - 5th December 2019. A total of 117 participants, comprising Agricultural Development Programmes (ADPs), National Agricultural Research Institutes (NARIs), Federal Department of Agricultural Extension (FDAE), FMARD, and Non-governmental organization (NGOs) were in attendance. The findings were well received with massive positive feedbacks from the relevant stakeholders.

The project has developed a zero-draft report from the two consultation processes with qualitative and quantitative analysis of agricultural extension along specific value chains (rice, cocoa, and poultry) in the states. The team is currently finalizing the draft write-up of findings to be shared with the FMARD, Federal Department of Agricultural Extension (FDAE) and other relevant stakeholders for comments and review. In Q2, the team will visit the remaining two states (Ebonyi and Cross River state) and deliver policy events and seminars in selected Feed the Future focus states on the main findings of the consultation process.

2.4 Impact of Covid-19 Pandemic on the Fish and Poultry Value Chain

Fourth Quarter (July – September 2020)
For the reporting period, data collection under the co-funded (World Fish and NAPP) study in the 8 Study States continued. The Study is following 525 actors across the Fish and Poultry Value Chains to deepen the understanding of the impacts of COVID-19 across the 2 value chains. Several of the

Project Scholars are engaged in this study, and are positioned to support in the dissemination of the preliminary findings and final reports.

Component 3: Strengthening evidence-based policy process and promoting impact

Activity 3.1: Strengthening Policy Process by bridging the gap between "knowledge providers" and "knowledge users": Outreach, engagement and Dissemination of Results from component 2

For the reporting period, the project with Action Aid provided support to the Ebonyi State Government in its development of the Ebonyi State Climate Change Policy targeting the Agricultural Sector. The project's In-Country Lead Collaborator on Climate Change, Dr. Robert Onyeneke (Alex-Ekwueme Federal University Ndufu-Alike Ikwo), co-leads the technical working group for this activity. The activity is being coordinated through the Office of the Senior Special Assistant to the Governor on Climate Change with the Ministry of Agriculture and Natural Resources and the Ministry of Environment. The first stakeholder forum held on August 3, 2020 with the Governor of the State delivering the Keynote Address. Faculty at MSU is providing support in the review phase alongside other Nigerian Collaborators. The projected timeline for the completion of this Activity is November 2020. With this activity, Ebonyi State hopes to be one of the first states to develop a Climate Change Policy that targets the agricultural sector of the state.

3.1.1   National/State Level Dissemination

Fourth Quarter (July – September 2020)
- **COVID-19 Agricultural Impacts Webinar Series**

The assessment of COVID-19 impacts is gaining attention in policy discussions on the recovery scenarios for developing countries including Nigeria and helping to guide government and donor decisions on supporting the most affected households and securing food systems. In supporting the COVID-19 recovery policies, the project alongside partners worked to conduct an economywide multiplier analysis of the COVID-19 pandemic and the policies adopted to curtail the spread of the disease in Nigeria. The analysis used the 2018 Social Accounting Matrix (SAM) for Nigeria to trace both direct and indirect spillover effects along and across supply chains. In the quarter under review (July – September), the team published the findings of the study as Nigeria Strategy Support Program (NSSP) working paper 63 with the title, "Estimating the Economic Impacts of COVID-19 in Nigeria". (http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/133846/filename/133846.pdf/mapsto/pdf).

As part of its support to strengthening policy process in Nigeria, the project shared the research findings with the Development Partner Group in Nigeria, including the Foreign, Commonwealth & Development Office (FCDO) (formerly DfID-Nigeria). This was to provide policy guidance to Development Partners Group (DPG) in Nigeria in preparation for a meeting with the Vice-President's office to discuss the post-COVID policies of the Government of Nigeria.

Third Quarter (April – June 2020)
- **COVID-19 Agricultural Impacts Webinar Series**

During the period of April 1 to May 13, the project organized weekly seminars on different aspects of the impact of COVID 19 on Nigeria, specifically in Agriculture. Please find the discussion of this activity under **1.2.2 Project scholars**

- **Public Expenditure on Agriculture and Household-Level Outcomes in Nigeria (by Hiroyuki Takeshima)**

On May 14, 2020, the project delivered a seminar presentation on the "Public expenditures on agriculture and household-level outcomes in Nigeria: Insights from State and LGA-level expenditures and LSMS-ISA panel household data". In attendance were 18 participants including 12 males and 6 females across USAID/Nigeria, FMARD, Japan International Cooperation Agency, Benue State Ministry of Agriculture and Natural Resources (Benue State Ministry of Agriculture and Natural Resources) MANR)), Kaduna State MANR, APRNet, TechnoServe, The Sun Newspaper and Federal University of Technology, Minna, Niger State. The seminar presented the findings from the study on the effects of public expenditures on agricultural outcomes and broader development outcomes at household-levels in Nigeria (see **2.3.1 Micro-level analyses on the impacts of agricultural public investments on selected indicators of broad development outcomes**). **Agricultural Supply Chain Situational Analysis and Post Pandemic Recovery: National Preparedness and the Role of the Private Sector)**

On Thursday, 11 June 2020, the Nigeria Strategy Support Program of IFPRI – NSSP in partnership with ACIOE Associates and the NACC, Kaduna State Branch started a two-part COVID-19 agricultural impact-related webinar series. Please find the discussion of this activity under

1.5: Engagement with non-government stakeholders (e.g. civil society, NGOs, and think tanks) with particular focus on FTF states.

The link to the webinar presentations is https://acioe.com/wp-content/uploads/2020/06/Presentation-Slides-ACIOEs-Agriculture-Webinar-Series-June-11th.pdf. The link to the webinar is https://us02web.zoom.us/rec/share/_cN1KbTyqGBLcJ3G8wb9d6g9Qo_neaa823Qar6INxE1IjTTtu2QLUDVzKzCNrlY1 with access password of 7V&@4@@#

- **Recovery Efforts to Mitigate Agricultural Supply Chain Challenges: The Role of Agricultural Development Programs**

On Thursday, the 25th of June, 2020, the project in partnership with ACIOE Associates and the NACC, Kaduna State Branch held the second agricultural webinar series, titled "Recovery Efforts to Mitigate Agricultural Supply Chain Challenges: The Role of Agricultural Development Programs". Please find the discussion of this activity under **1.5: Engagement with non-government stakeholders (e.g. civil society, NGOs, and think tanks) with particular focus on FTF states.**

The link to the webinar is https://us02web.zoom.us/rec/share/3cFFAanB2XFLE4nO8x7mC_R9R63Oaaa8g3cZ_PQPnUnz55RRk5_pe1VaEXhnaVxq with an access password of 9N#.^67%.
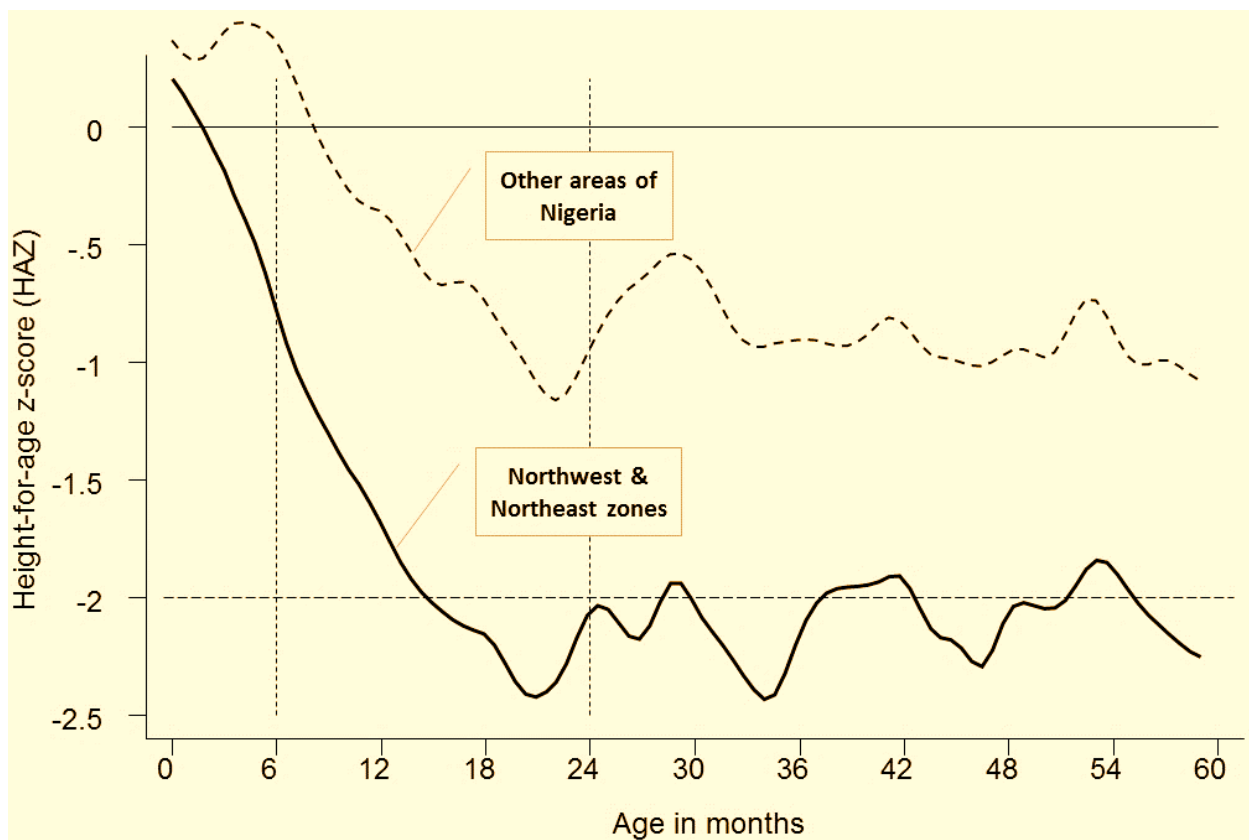
Second Quarter (January – March 2020)
Under this component, the Nigeria Agricultural Policy Project seeks to systematically bring together various stakeholders and actors in the policy process to share knowledge that can contribute to improved policy processes. It also seeks to participate in relevant fora which help to influence agriculture and food policy process and programming in the country. On February 20, 2020, the

project actively participated in a one-day interactive workshop on nutrition programming organized by USAID/Nigeria and tagged, "USAID/Nigeria and Partners Nutrition Interactive Session". The project organized a session on "Nutrition, Food Systems and Food" with three seminal presentations. Key findings are presented below.

Driving down chronic undernutrition in young children in northern Nigeria (by Mulubrhan Amare)

This study was motivated by the high rates of undernutrition in children under five years of age in northern Nigeria, and the sharp differences in nutritional outcomes between northern Nigeria and other parts of the country (Figure 1). The study assessed the immediate, underlying, and basic drivers of chronic undernutrition with a focus on challenges associated with infant and young child feeding. The analysis was based on a rapid scoping study conducted in early 2017 (key informant interviews in Bauchi and Kebbi states and in Abuja), a literature review, quantitative analysis of child-level data from the 2008 and 2013 Nigeria Demographic and Health Surveys (DNS)

Figure 1. Mean height-for-age z-score (HAZ) by month of age for Nigerian children from birth to 5 years of age.

Source: Nigeria Demographic and Health Survey (NDHS, 2013)

Key messages:

1) In northern Nigeria, poor nutrition caring practices are the underlying determinant of nutritional status. Poor caring practices include the low rate of exclusive breastfeeding in first
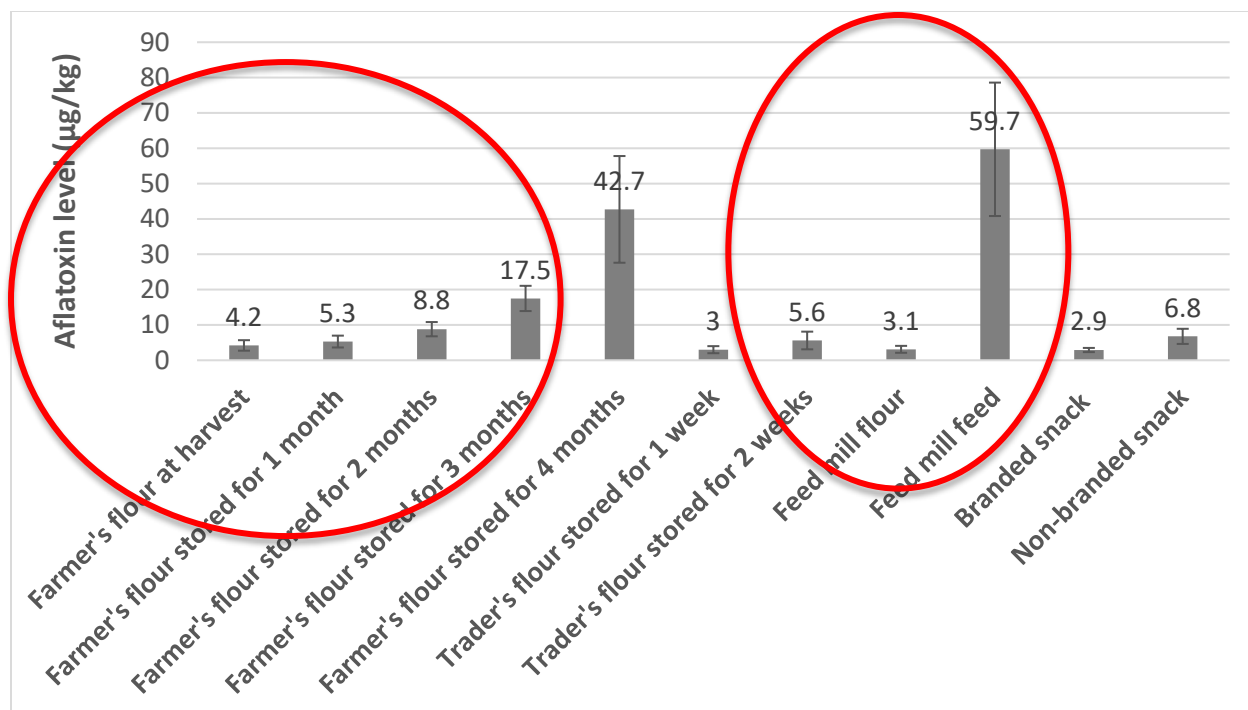
66

six months of life, with caregivers providing liquids other than breastmilk within days or hours of birth, thus increasing risk of diarrhea; the fact that complementary foods provided during weaning are not nutrient-dense; poor health care seeking behaviors by mothers; and social barriers constraining mothers' engagement with health services.

2) Parents' education level is a significant determinant of nutritional status of young children: Poorly educated parents cannot access information on good nutritional care and act on it, and only about a quarter of women and half of men in northern Nigeria are literate.

3) Poor nutritional outcomes are also driven by social and cultural barriers within the household and community that make it difficult for mothers to directly access the knowledge or resources that they require to provide good care. Therefore, a central element in the design of any new programs should be to deliver to the requisite knowledge to mothers.

4) However, given the marginal position of young mothers within the community, a whole community approach to nutrition knowledge strengthening is required, providing the young mothers in an indirect way with the needed information. Efforts to reach young mothers through their own mothers, through their husbands, through community volunteers, through community and religious leaders, and any other channels should be enhanced. Addressing undernutrition will also require continued efforts at political and social mobilization, and specifically working with traditional and religious leaders.

5) There is a need for better data and evidence-based policy to guide nutrition programs in northern Nigeria. The capacity to undertake public health related efforts to prevent chronic undernutrition needs strengthening across Nigeria. This will require an expansion of public health nutrition training at all levels of education.

- **Food safety for food and nutrition security: The case of aflatoxin along Nigeria's maize value chain (by Dr. Saweda Liverpool-Tasie)**

This presentation was motivated by the insight that although food safety is a critical component of food and nutrition security, it tends to be an afterthought or is simply forgotten in many food security and nutrition policies. The presentation reported findings from studies based on assessments of the occurrence of aflatoxin and fumonisin along the maize value chain in southwest Nigeria, effects of processing practices on mycotoxin reduction in maize-based products, and choice experiments on the introduction of food safety labels.

Figure 2. Aflatoxin contamination along the maize value chain in southwest Nigeria

Source: The occurrence and co-occurrence of aflatoxin and fumonisin along the maize value chain in southwest Nigeria (2019). Food and Chemical Toxicology. 129, 458-465 by Liverpool-Tasie L.S.O, Saha Turna N, Ademola O, Obadina A, Wu F

Key messages

1) When food is scarce or perceived to be scarce, hygiene, safety and nutrition are often ignored as people shift to less nutritious diets and consume more 'unsafe foods' — in which chemical, microbiological, zoonotic and other hazards pose a health risk.

2) Unsafe food, whether arising from poor quality supplies or inadequate treatment and preparation, increases the risk of foodborne infections such as diarrhea and aflatoxicosis. These infections have a much higher impact on populations of poor nutritional status.

3) In Nigeria, Aflatoxin contamination in maize extends beyond production to storage and final maize-based human and animal food products. Adequately addressing aflatoxin contamination requires consideration of the entire maize value chain as well as associated value chains such as animal feed.

4) There are potential market mechanisms that could be introduced in Nigeria. Nigerian consumers respond to information about the health effects of aflatoxin, and maize traders respond to the attributes that their consumers care about. Thus, the introduction of an aflatoxin certification scheme could be implemented in Nigeria. Given the low level of awareness about aflatoxin such a policy should be preceded or accompanied by an information campaign as a campaign would increase awareness and demand for aflatoxin safe products. However, there is still a strong need for regulation enforcement.

5) The Nigeria Agricultural Policy Project has disseminated these findings through training with extension workers. An initial 124 trainees have now trained more than 6,000 extension workers on practices to reduce aflatoxin contamination. This work is being led by Toyin Adebowale, a
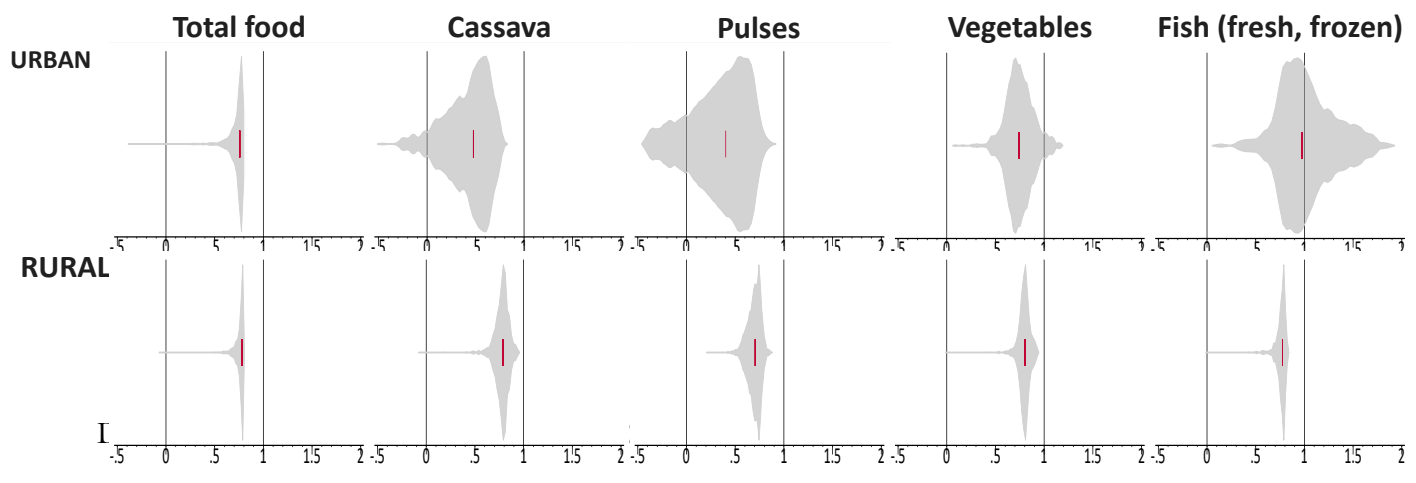
project scholar on the Aflatoxin Research Team, who spent a semester at MSU in 2017 taking classes, working in a toxicology laboratory, and receiving mentoring from MSU professors.

6) In Nigeria, addressing food safety for enhanced nutrition will require an integrated approach to food where food safety and nutrition are systematically introduced into mainstream food system policies and interventions. Evidence from future research on food safety in maize and other commodities such as groundnuts will inform this approach of linking food safety and nutrition in policies and interventions.

- **Diets, Food Systems, and Agriculture-Nutrition Linkages (by Dr. Olivier Ecker)**

This ongoing study is motivated by the recognition that poor dietary quality is the root cause of Nigeria's growing triple burden of malnutrition (chronic child undernutrition, micronutrient deficiencies, especially among children and women, and rapidly rising overweight and obesity among adults). The presentation was based on past and ongoing work supported by USAID's FtF initiative (under NAPP) and the CGIAR A4NH program. The analysis includes a comprehensive descriptive analysis of food consumption patterns and trends and an econometric analysis. The latter is an estimation of income and own- and cross-price elasticities for 15 food groups by location (urban and rural areas) and for two seasons (post-planting, post-harvest) in two years (2013, 2016).

Figure 3. Income elasticities for selected food groups in 2016 at post-harvest (derived from two-stage, censored demand system estimations)

Key messages

1) Nigeria faces a growing triple burden of malnutrition, especially due to rapidly rising overweight/obesity. Undernutrition and micronutrient deficiencies are often aggravated by poor health conditions such as poor access to clean drinking water and sanitation, poor hygiene, and exposure to animal feces. Obesity increases the risk of common non-communicable diseases (NCDs) such as cardiovascular diseases (including heart attack, stroke), type 2 diabetes, and hypertension. Overweight and obesity are rising in BOTH urban and rural areas, because poor dietary quality prevails in both areas. Food budget shares are remarkably constant across income levels in rural and urban areas (and across time), suggesting similar food preferences (Figure 1).

2) To effectively tackle this burden, it is important to put a strong focus on diets, rather than primarily on (child) nutrition outcomes. For example, regarding undernutrition, policymakers and development practitioners should aim at improving access to and intake of high-quality diets for all household members (and especially for adolescent girls and mothers) rather than on reducing child stunting. The rationale for this approach is that the nutritional status of mothers and mothers-to-be determines the health and survival of young children.

3) It is important to go beyond nutrition-specific interventions and promote nutrition-sensitive policies and programs. This is because nutrition outcomes, especially child anthropometry (height-for-age, weight-for-age) are driven by a large variety of factors, requiring complex interventions. Nutrition-specific interventions (those that tackle immediate causes of malnutrition) have been important but have limited potential. To reduce malnutrition substantially and sustainably, nutrition-sensitive interventions that address the underlying determinants are needed.

4) Programs must target poor urban areas (slums), in addition to rural areas with high density of severe malnutrition (mostly located in the Northwest and Northeast). While current estimates indicate that half of Nigeria's population lives in urban areas, most of the total population growth to 2050 will occur in Nigeria's cities. Expanding cities often struggle to ensure access to affordable and healthy diets, especially for poor residents.

5) Nutrition policy should be linked to other (economic) sectors influencing food consumption and nutrition, especially agriculture and agricultural policy, but go beyond subsistence-oriented farming. Nigeria's nutrition policymakers and development practitioners should consider deepening the adoption of a food (and nutrition) system approach. This approach puts consumers and their diets at the center and understands that diet choices are conditioned by the food environment, which in turn is determined by the food system that drives agricultural production, food trade, processing, and retailing.

6) A stronger evidence based on research will be needed to drive this policy approach. The research should help to identify policies and investments needed across ministries and at different levels of government to transform food systems that promote healthier diets, especially among the urban poor and contribute to inclusive economic transformation. This will include linking consumer demand to farm production, with a focus on value chains that improve food and nutrition security.

First Quarter (October – December 2019)
There was no activity for Q1. The analytical activities in Component 2 will yield findings and outputs that will be used for outreach, engagement, and dissemination in Q2 and Q3.

3.1.2 Support to FMARD policy processes

Fourth Quarter (July – September 2020)
USAID is promoting gender mainstreaming and youth inclusion in its activities and Nigeria agriculture space. In line with this objective and to support the policy processes of FMARD, the project had a meeting on July 2, 2020 with the Director, Special Duties, and Deputy Director, Gender Unit of FMARD, to discuss support for dissemination and implementation of the National Gender Policy on Agriculture at the state levels. The project had in the past actively supported the development of this policy document through provision of technical expertise. The successful collaboration at the federal

level necessitated the need to further support the dissemination and domestication of the policy at the state level.

The NAPP also supported the FMARD policy processes that target to promote efficiency and effectiveness of the extension services in Nigeria. In this regard, the NAPP organized a meeting with the relevant stakeholders to discuss the extension service delivery in Nigeria. This meeting was held on the 9th July 2020 and harmonized course of action for holding a workshop to support the development of extension models towards the implementation of the National Agricultural Extension Policy at both the national and sub-national levels. As part of the planning process towards a successful workshop, the project organized another meeting of stakeholders on September 11, 2020 towards hosting a national sensitization workshop for the revitalization of the agricultural extension system in Nigeria. At the meeting were representatives from IFPRI, Federal Department of Agricultural Extension (FDAE), National Agricultural Foundation of Nigeria (NAFN), AGRA, National Agricultural Extension and Research Liaison Services (NAERLS). As the core line department, the FDAE is currently liaising with the office of the Permanent Secretary, FMARD, to obtain the Ministry's approval for the activities lined up for the proposed event.

Throughout the quarter under review, the project provided technical assistance to the Medium-Term National Development Plan (MTNDP) of the Federal Ministry of Budget and National Planning. As part of this support, the project presented the findings from the study on "Transforming Nigeria's Agri-Food System: Identifying Policy and Investment Priorities" to the Technical Working Group on Agriculture, Food Security, and Rural Development for the Medium-Term National Development Plan on the 22nd July 2020. Other key stakeholders in attendance were representatives from FMARD and Federal Ministry of Budget and National Planning. The presentation of research output under the theme, "Nigeria's agri-food system, its current status, opportunities and prioritization options across agricultural value chains" was to guide the government of Nigeria on prioritizing investments for agricultural development policies. This invitation to NAPP to contribute to the MTNDP process illustrates the recognition of the value of USAID/Nigeria funded research for contributions to local and international policy discussions on how to conduct and use field research for policy.

In line with the support for improved policy process, the project also participated in a meeting with the FMARD to discuss Nigeria's Medium-Term National Development Plan (MTNDP), 2021-2025, 2026-2030, and the Nigeria Agenda 2050. The meeting was held on August 10, 2020 and had key stakeholders including Alhaji Sabo Nanono, Minister for Agriculture and Rural Development, Directors from FMARD, representatives from the Project Coordinating Unit (PCU), IFPRI and Technical Working Group (TWG) in attendance. At the meeting, the project made a presentation on the Rural Investment and Policy Analysis (RIAPA) model as a tool for prioritizing investments. The buy-in to the RIAPA model by the stakeholders necessitated further discussions. On August 21, 2020, the NAPP held another discussions with the chair of the TWG on Agriculture, Food Security, and Rural Development for the MTNDP and the World Bank on the use of the RIAPA modelling tool developed by IFPRI for prioritizing policy options in the MTNDP. This discussion is part of contributions of the policy project towards providing research outputs and strengthening capacity for policy development. USAID support is enabling Nigeria to benefit from these technical inputs and evidence generated by the project on agricultural policy development. The MTNDP is expected to guide budget allocations and policy decisions in Nigeria for the medium-term, and it is important that the development of the FMARD Nigeria Agricultural Technology and Innovation Plan (NATIP) is aligned to the MTNDP.

Following the request from the TWG, the project between August 17 and 18, 2020 reviewed and provided in-depth technical support to the diagnostic report of the TWG on Agriculture, Food Security, and Rural Development for the Medium-Term National Development Plans (MTNDP), 2021-2025; 2026-2030, and Nigeria Agenda 2050. This further highlights the importance placed by stakeholders on USAID-funded researches in shaping the policy discourse in Nigeria.

On August 19, 2020, the project participated in a workshop on "Nutrition Resource Tracking". In attendance were representatives from the Federal Ministry of Finance, Budget and National Planning, Results for Development (R4D) and other government ministries. The workshop was aimed at familiarizing stakeholders with the data collection tools intended for nutrition-focused resource tracking. The invitation underscores the contributions of the USAID-funded policy project towards strengthening statistics on nutrition policy and programming in Nigeria.

Engagement with the private sector, government agencies, and development partners
In line with the USAID Collaboration, Learning and Adaptation (CLA) framework, the NAPP engaged with development partners in Nigeria on Agricultural issues. On the 2nd July 2020, the project presented the findings from the study on "Impacts of COVID-19 on Production, Poverty & Food Systems in Nigeria" to Chris Pycroft, co-chair of the Development Partners Group in Nigeria and Head of DFID-Nigeria, and other DFID colleagues. The presentation was to share recent findings on impacts of government policies to curb COVID-19 spread on the Nigeria economy, particularly on the agri-food sector. In addition, the presentation was to provide policy guidance to Development Partners Group (DPG) in Nigeria in preparation for a meeting with the Vice-President's office to discuss the post-COVID policies of the Government of Nigeria.

Furthermore, the project collaborated with some of the USAID Feed the Future (FtF) Implementing Partners (IPs) during the quarter under review. On the 9th July 2020, the project met with the Feed the Future Nigeria Agribusiness Investment Activity to discuss state-level policy processes. The meeting discussed support to Delta, Ebonyi, and Kebbi state agricultural policy development, and support to FMARD in developing the new agricultural policy, the Nigeria Agricultural Technology and Innovation Plan (NATIP). To this effect, the project extended invitations to the Activity to participate in the agriculture policy validation workshops held in Ebonyi and Delta States on 14 and 17 September, respectively.   Still on collaboration, the project had a meeting with the recently launched FtF Agricultural Extension and Advisory Services (AEAS) Activity and discussed possible areas of collaboration. The meeting held on September 10, 2020 aligns with the promotion of synergy between IPs to deepen USAID's impacts among stakeholders in the country.

On 16th July 2020, the project participated in the USAID Quarter 4 Monitoring, Evaluation and Learning (MEL) Community of Practice meeting and made a presentation on "Incorporating Digital Technologies into project activities". The meeting provided opportunity for USAID implementing partners (IPs) to learn from one another on successes and challenges on the use of digital technology during the outbreak of COVID – 19 pandemic. It also provided an avenue for the NAPP to interact with other USAID IPs towards improving its M&E system. On August 10, 2020, the NAPP participated at the 4th quarter USAID IPs meeting. This quarterly meeting affords the USAID IPs the opportunity to interact with USAID and other IPs. At this quarter's meeting, USAID presented the key issues, lessons learned, accomplishments, plans, changes and country strategies. IPs were also given opportunity to ask questions and responses were provided. The feedback from the meeting assisted the project on its implementation strategies. The NAPP participated in the FY20 Fourth Quarter Global Food Security Strategy (GFSS) Stakeholders Meeting which held on September 17,

2020. This meeting highlighted IPs achievements since the last virtual GFSS meeting on May 28, 2020, and the presentation of the USAID/Nigeria Multi-sectoral nutrition strategy with private sector opportunities and approaches to nutrition improvement in Nigeria. The meeting further highlighted the impacts of COVID-19 on food systems and plans to incorporate nutrition and resilience in USAID activities to improve the food system. NAPP was relevant during the meeting and assisted to draft the report of the event.

Other engagement with the donor and IPs during the quarter included the NAPP participation in a 2-day EGE Fundamentals of MEL and Data Quality Assessments (DQAs) training. The training was organized by USAID to assist IPs improve on their service delivery. The training held on August 4 – 5, 2020 and availed the MEL personnel of USAID activities the opportunity to learn the basic foundation of MEL for designing and managing high-performing and impactful activities; and also understand the fundamentals of DQAs. The skills learned from the training impacted the NAPP MEL system. The project also participated in a focus group discussion (FGD) on the FtF's assessment and reporting of progress in target countries which held on the 17th July 2020. The FGD was organized by the U.S. Government Accountability Office (GAO) and the discussion centered around the FtF performance indicators, their mode of collection, monitoring and use of data. In attendance were key staff of AGRA, Cultivating New Frontiers in Agriculture (CNFA), U.S. Government Accountability Office (GAO) and IFPRI.

In supporting the donors efforts to respond to government's National Home-Grown School Feeding Program (NHGSFP), the project was invited to share its experiences and understanding of the implementation activities of the NHGSFP of the government to guide future donor support. On the 23rd July 2020, the NAPP demonstrated its effectiveness by sharing its experiences on previous engagements with the national program to guide World Food Program's (WFP's) planned support for the NHGSFP. The NAPP's inputs represent the recognition of the value of USAID Nigeria funded research for contributions to local and international policy discussions on how to conduct and use field research for Policy.

NAPP is a member of the Agricultural Donor Working Group (ADWG) and has been efficient and relevant in the policy processes of the group. On August 20, 2020, the project participated in the ADWG Task Team developing the agriculture policy note and topics for discussion between the Vice-President and the Key Political Partners Group (KPPG). Members of the ADWG included high profiled representatives from EU, IFPRI, DFID and Kivu Consulting. The Policy Project provided evidence-based technical guidance to both the development partners and the Government of Nigeria towards strengthening policy development and implementation critical for revival and sustainability of the economy during and after the COVID-19 period. The contribution of the project connotes the USAID's support in promoting evidence-based policy formulation and implementation for the agriculture sector in Nigeria. The project also participated in ADWG meeting with FMARD and contributed significantly to the ADWG committee on the Nigeria Joint Sector Review/Biennial Review (JSR/BR) report presentation. Key representatives from FMARD, IFPRI, USAID and other ADWG were in attendance.

In support to the policy process and engagement with development partners, the project attended a virtual Policy Seminar hosted by African Development Bank (AfDB) on "Policies for Enhancing Resilience and Transparency in Public & Private Finance Management on Post Covid-19 Africa". The seminar which held on September 7, 2020 brought together global experts and practitioners in macro-economic, fiscal, monetary, and private finance policy to specifically examine policy options for

prudential management of private and public finance and debt sustainability in a post-COVID-19 Africa. Key representatives from AfDB, IFPRI, AERC, Lee Kuan Yew School of Public Policy, ACET, Universities and Global Institutions were in attendance during the seminar. This seminar aligns with the USAID efforts in addressing the impact of COVID – 19 pandemic.

Third Quarter (April – June 2020)
The project is committed to assisting the FMARD and other stakeholders to improve on their performances and policy processes. Since inception and in line with the project's expectation, FMARD has remained an important stakeholder to the project. In addition to regular interactions between the project and the FMARD PCU and other FMARD departments, FMARD has continued to benefit from the project's activities, including trainings, and the use of the OPI measurement tool. Also, during the quarter under review, the project worked closely with the PCU and NASC of FMARD to develop their MEL plans. The finalized document is expected to be updated regularly and used to guide the implementation of the organizations' activities.

On May 20, 2020, the project participated in the Agriculture Donor Working Group (ADWG) meeting. The project joined a team with representatives from USAID, United Kingdom (UK) Department for International Development (DFID), European Union (EU), GIZ, the World Bank and other development partners to undertake a COVID–19 risk analysis and policy brief on secondary impacts on the agriculture sector. The analysis will serve as a background for ADWG to support the Federal Government of Nigeria in its resolve to support the growth of the economy post-COVID from the agriculture lens.

The ADWG risk assessment team met on May 27, 2020 and agreed that Joanna Francis (DFID) and Kwaw Andam would lead the preparation of the policy brief. The project's technical contributions to the development of the brief helped to prepare the foundation for a coordinated response from the international community to secondary impacts of COVID-19 on agriculture in Nigeria. USAID support, through the policy project, for the analysis of COVID-19 impacts has produced findings, which are being used by development partners as analytical input to the exercise.

On May 27, 2020, the project participated in the FAO discussion on agriculture and food security impacts and provided COVID-19 impact analysis as a complementary study. Key stakeholders including IFPRI, FAO, FMARD and other relevant stakeholders in the agricultural sector attended. The COVID-19 impact analysis supported by USAID will feed into the FMARD-led assessment and policy formulation for the agriculture sector.

The project also engages with FMARD directly on policy issues. On 11 June 2020, Kwaw Andam and Hyacinth Edeh met with Alhaji Muhammad Sabo Nanono, Honorable Minister of Agriculture and Rural Development and Professor Murtala Sagagi, Special Adviser to the minister, to discuss support for policy development and capacity strengthening. The discussion was focused on the policy priorities of FMARD and support from the policy project in the development of the next phase of Nigeria's agriculture policy. The policy project highlighted the USAID's support in promoting evidence-based policy formulation and implementation for the agriculture sector in Nigeria in the post-COVID19 era. Furthermore, the project also emphasized its support in providing technical assistance to review and finalize the Nigeria Agricultural Technology and Innovation Plan (NATIP, 2020-2023). The NATIP will serve as the successor to the previous agriculture policy documents of the GON, namely the

Agriculture Promotion Policy (APP) and the Agricultural Transformation Agenda (ATA). The meeting was a follow up to earlier interactions with the Special Adviser to the minister.

On June 12, 2020, the project had a meeting with the ADWG comprising IFPRI, AGRA, International Institute of Tropical Agriculture (IITA) and FAO on their strategies to support FMARD on Comprehensive Africa Agriculture Development Program (CAADP)-Biannual Review (BR) and Joint Sector Review (JSR) reporting. The meeting discussed the various gaps observed in 2018 BR and the needed supports in the four areas, including;

1. Technical assistance for designing New Primary Data Collection on seven key areas: Agricultural public expenditure monitoring system; Private sector investment data (foreign and domestic), Size of irrigated area; Post harvest loss estimation, Poverty and Nutrition indicators (Stunting, underweight etc.), and Number of households covered by index insurance.
2. Technical assistance for secondary data collation from multiple sources on 15 key areas such as access to land, women empowerment, resilience of Agric households etc.
3. Streamlining of existing data collection efforts and
4. Advocacy for improved regularity of data collection

IFPRI plans to take the lead in the data gaps identified to support the ADWG and the GON to strengthen evidence-based policymaking processes.

The project also participated in another ADWG meeting with FMARD, which held on June 24, 2020. The meeting discussed analyses of COVID-19 impacts and FMARD policies for the agriculture sector. With USAID support, the Policy Project is providing technical inputs for the ADWG in its engagement with the Government of Nigeria on agricultural policies.

Engagement with the private sector, government agencies, and development partners
On May 21, the project participated in a public-private dialogue on establishing a sustainable Soya Bean Value Chain in Kaduna State. The meeting brought together stakeholders including donor funded project implementers like CNFA and MSU to brainstorm on developing a roadmap for Soya Bean Value Chain for Kaduna State. The Kaduna State Commissioner for Agriculture chaired the session and was the lead member of the delegation from the Kaduna State Government. The Roadmap will enhance clarity of the policy framework on the value chain and highlight areas for concentration as well as opportunities for investment. MSU through the Nigeria Agricultural Policy Project had previously (2017) supported the Kaduna State Ministry of Agriculture and Forestry to produce a Policy Note on Soya Beans. The participants included the project, Nigeria Agribusiness Activity, Kaduna State Ministry of Agriculture and Forestry, NESG, Synergos Innovations Ltd, AGRA, John Kufuor Foundation, Standard Organization of Nigeria and the Private Sector.

On May 28, June 5, and June 26, 2020, the project participated in the Zero Hunger Roundtable Task Teams on Data and Long-Term Sustainability. The Zero Hunger Roundtable is serving as a forum for the Ministry of Humanitarian Affairs, Disaster Management and Social Development to engage with development partners, the private sector, and government agencies in planning and coordinating policies and support to vulnerable populations. Participants comprised of the project, Ministry of Humanitarian Affairs, Disaster Management and Social Development, WFP, Sahel Consulting Agriculture & Nutrition, Red Media, FAO, and Alternative Managers Ltd. As part of its contribution to guide the team, the project introduced tracking of COVID-19 policy responses undertaken by the

Agriculture Policy Project. By providing information, data, and policy recommendations to the Roundtable, the Nigeria Agricultural Policy Activity is ensuring that its research provides policy guidance in mitigating the food insecurity impacts of COVID – 19 in Nigeria.

As part of efforts to avoid duplication of efforts and increase effectiveness of project implementation, NAPP had a successful meeting with the new USAID activity, Evidence and Action Towards Safe, Nutritious Food (EatSafe). The policy project discussed information-sharing and potential collaboration on research and policy engagement on food safety issues with EatSafe, and shared findings from research undertaken by the policy project. Through these contributions, the policy project is providing EatSafe with references and technical guidance for the activity's evidence-generation component. The policy project also provided some guidance on policy engagement during the meeting, based on lessons learned over the past few years.

Second Quarter (January – March 2020)
The project has the mandate to work closely with its stakeholders and assist them in improving on their service delivery. FMARD is one of such stakeholders that the project has continuously worked to strengthen its partnership since inception. In addition to having a representative on the policy project's National Advisory Committee, FMARD has continued to benefit from the project's activities, including trainings, and the use of the Organization Performance Index (OPI) measurement tool. Also, during the quarter under review, the project worked closely with the PCU of FMARD in reviewing its MEL plan, while efforts are currently on going in assisting the National Agricultural Seed Council (NASC) to develop its MEL plan.

The project as a member of the CAADP-Biannual review (BR) and Joint Sector review (JSR) technical committee hosted the first meeting of the committee during the quarter under review. The committee is responsible for developing strategies to support the government of Nigeria, specifically FMARD to improve the BSR/JSR reporting to the AU Assembly.

Equally, the project continues to provide the needed technical support to sector-specific policies/strategies of FMARD. During this quarter, the project participated and provided inputs during the National Rice Development Strategy validation workshop organized by FMARD. The inputs provided were based on recent NSSP works in areas of mechanization and plant breeding as they relate to rice development in Nigeria.

During the quarter under review, the project intensified efforts to support the National Agricultural Extension and Research Liaison Services (NAERLS) and the Federal Department of Agricultural Extension (FDAE) to host a stakeholder learning forum towards strengthening extension service delivery in Nigeria. Several meetings towards achieving this have been held and a 10-member planning committee now constituted to organize the event. The committee members are diverse and come from the project, NAERLS, FDAE, AGRA, Nigeria Agricultural Forum, SG2000, and the Agricultural Development Program.

First Quarter (October – December 2020)
Support to FMARD remains a key objective of the project and as such the project has continuously deepened and strengthened the partnership with FMARD since inception. FMARD has a representative on the policy project's National Advisory Committee and the project had regular meetings with the senior management of the Project Coordinating Unit (PCU) of the FMARD during the quarter to discuss the implementation of project activities, including capacity-building programs, in order to fill important capacity gaps within the Ministry for the successful implementation of

FMARD's Agriculture Promotion Policy (APP). Please see component 1.1.1 for further details on training courses delivered for FMARD.

Also, during the quarter under review, the project as a member of the Agricultural Donor Working Group (ADWG) actively co-led the technical preparation of the policy brief presented to the Honorable Minister of Agriculture on 16 December 2019 by the ADWG. The policy brief is part of the contributions of the Group to support the agriculture policy dialogue and review of the Ministry.

Activity 3.2 Support for state agricultural policy development (or review) for FTF states

3.2.1 Support for State Agricultural Policy Development (or review) Delta State and Ebonyi State (FTF states)

Fourth Quarter (July – September 2020)
The project is working with Ebonyi and Delta states Ministry of Agriculture and Natural Resources in developing the state Agricultural Policy document. On September 14 & 17, 2020, the project jointly organized a multi-stakeholder validation workshop in Ebonyi and Delta States, respectively. Several relevant stakeholders including the State Commissioners of Agriculture, Permanent Secretaries in the State Ministries of Agriculture, members of the States House of Assembly Committee on Agriculture, academia, private sector actors, state-based NGOs, CSOs, Women and Youth groups, among others attended and provided valuable inputs during the validation workshop. During the workshop, each section of the draft policy document was reviewed critically and validated by these stakeholders. The validation workshop was a platform provided by the policy project to ensure engagement and ownership of the policy document by stakeholders, particularly at the state level. This activity expresses the USAID assistance for improved policy process in Nigeria. The draft policy documents for both states are now available.

Third Quarter (April – June 2020)
Delta State
Following the feedbacks from data validation held in the second quarter of Year 5, the project continues to work closely with the Delta State Ministry of Agriculture and Natural Resources to review the policy document during the quarter under review. The first review by various government stakeholders is planned for mid-July 2020 following the project's review and submission to the state ministry for its inputs.

Ebonyi State
The project organized a webinar (workshop) on data validation towards the development of the Ebonyi State Agricultural Policy document. The workshop aimed at ensuring consistency and valid data for the Ebonyi State Agricultural Policy document. Prior to this activity, the project in collaboration of the State Ministry of Agriculture had hired a consultant - Prof. Daniel Ugwu who worked effortlessly with various stakeholders including government, academia, Non-Governmental Organization and key private sector actors in the state to develop the draft policy document.

The validated data and information were from various secondary sources including the Ebonyi State Agricultural Development Programme (EBADEP), the NAERLS, Ebonyi State Ministry of Budget and Planning, and FMARD. The validation exercise was earlier planned to hold in March 2020 but rescheduled to hold as Webinar as a physical contact activity was suspended due to the COVID – 19 pandemic and associated government responses, including lockdowns and curfew. The Webinar held

on May 18, 2020 had in attendance 13 professionals including 11 males and 2 females. The participants were drawn from various establishments including the project, USAID Feed the Future Nigeria Agribusiness Investment Activity, Ebonyi State University, Alex Ekwueme Federal University Ndufu-Alike, Ebonyi State Ministry of Agriculture and Natural Resources, and Otu's Brown Rice Limited among others.

Data presented covered agricultural sector performance in the last ten years, agricultural production including crop, livestock and poultry, capital budget for agriculture, SWOT and PESTLE analysis of the state agricultural sector. Following the presentation, observations were raised and extensively discussed. Of note is the need to consult other data sources to update and fill identified gaps. Data from World Bank LSMS, NAERLS, National Bureau of Statistics (NBS) and FMARD among others were recommended. The review of the draft policy document based on feedbacks from the data validation workshop is currently ongoing. The output document is expected to serve as a reference guide for the implementation of agricultural activities in Ebonyi State, supporting evidence-based decision-making in line with the USAID/Nigeria strategies.

Second Quarter (January – March 2020)
Delta State
The project continues to work with the State Ministry of Agriculture and Natural Resources in Delta State as well as PIND towards the finalization of the agricultural policy document. During the quarter under review, a validation workshop to ensure that data/information gathered for the agricultural policy document reflect the true situation in the state was carried out. The workshop was attended by 30 relevant stakeholders including the State Commissioner and the Permanent Secretary, Delta State Ministry of Agriculture and Natural Resources, the Special Assistant to the Governor on Agriculture, the State Chief job Creation Officer, the Agribusiness and Investment Activity (a USAID-funded Feed the Future Activity), among others. Following feedbacks during the validation workshop, the agricultural policy document is now under review.

Ebonyi State
The inauguration of the Ebonyi State Agricultural Policy Review Committee, which has the project as member was done by the Permanent Secretary, Ebonyi State Ministry of Agriculture and Natural Resources in January 2020 of this quarter. Following this, committee reviewed the timeline and draft content of the policy document. Data collection and compilation is completed, and a draft of the policy document is now submitted and under review.

First Quarter (October – December 2019)
The review of the Delta State Agric Policy document is still in progress and the project continues to work with the State Ministry of Agriculture and Natural Resources in Delta State as well as PIND towards the finalization of the agricultural policy document. The NAPP Consultant continues to interact with relevant stakeholders to review the various documents necessary for the development of the state agricultural policy. On 23 October 2019, a tripartite meeting of the project, PIND and the State Ministry officials including the Honorable Commissioner for Agriculture and the Permanent Secretary was held and the modalities for engagement of the parties concluded. Following this and the recruitment of the project consultant, the review process kick-started on 21 November 2019 with the meeting of both consultants from the project and PIND, and the Honorable Commissioner, Chairman Delta State Agric and Rural Dev Agency (DARDA), Chief Job Creation Officer, Agriculture Policy Technical Review Committee (APTRC), and the various Directors of Delta State Ministry of Agriculture. The purpose of the meeting was to set the scene for the final review process including

the setting of timeline and responsibilities, and to secure commitment of stakeholders. On 22 November 2019, a follow-on meeting was held with the relevant stakeholders to align data and information needs by the Consultants. A second follow on meeting was held on 10 December 2019 to update the stakeholders on the progress made on the data and information front towards the Policy document review. While undertaking this activity the project is coordinating with the Agribusiness Investment Activity, to ensure that the revised state policy document includes provisions for making agriculture more attractive for private sector investment.

Ebonyi State

In December 2019 of the first quarter of Year 5, the project recruited an agricultural policy expert for the review of the State Agricultural Policy document. The project continued to maintain communications with the Permanent Secretary of the state Ministry of Agriculture and Natural Resources throughout the recruitment process for the consultant. Following this recruitment and the selection of the review committee members by the Ministry, the stage is now set for the take-off of the review process. The inauguration of the committee is scheduled for the third week in January 2020.

3. INTEGRATION OF CROSSCUTTING ISSUES AND USAID FORWARD PRIORITIES

Collaboration with Feed the Future Project Activities

Fourth Quarter (July – September 2020)

In Q4, the project continues to partner with other Feed the Future implementing partners (IPs) to strengthen its earlier collaboration agreements. This is evident in the continued involvement of the Agribusiness Investment Activity in the project's activities toward the development of the Ebonyi and Delta States agricultural policy documents. Also, the project is facilitating the involvement of the Feed the Future Nigeria Agricultural Extension and Advisory Services Activity in the planned national extension workshop described under

3.1.2 Support to FMARD policy processes.

Third Quarter (April – June 2020)

There was no activity to report during the quarter under review.

Second Quarter (January – March 2020)

There was no activity to report during the quarter under review.

First Quarter (October – December 2019)

During this quarter, the Nigeria Agriculture Policy Project worked together with the three activities operating in the FtF portfolio at the time (the Agribusiness Investment Activity, the Partnership for Inclusive Agriculture in Africa, and the Maize Quality Improvement Partnership) to develop a collaboration framework, with USAID guidance and approval that would encourage effort-sharing and avoid unnecessary overlaps in project activities. Within this framework, the Agriculture Policy Project committed to several areas of collaboration including joint meetings and events at the state level to encourage agriculture and agribusiness policy reform, facilitating access to research findings and providing explanations of relevant policy lessons for each activity, and introducing new implementing partners to public and private policy influencers.

Implementation of the collaboration framework had already commenced in 2019 with a joint activity by the project and the Maize Quality Improvement Partnership for an aflatoxin dissemination event in Abuja. In addition, there were coordinated efforts in Q1 for state-level work in Delta and Ebonyi states with the Agribusiness Investment Activity. At the GFSS stakeholders meeting held in Asaba on November 21, 2019, the Agriculture Policy Project also started discussions with the newly-awarded activities in Northeast Nigeria (Integrated Agriculture, Rural Resilience, and Water for Agriculture, and West Africa Trade and Investment Hub) on areas of potential information-sharing and collaboration as those new activities roll out.

Gender Equality and Female Empowerment

Fourth Quarter (July – September 2020)
The NAPP adopted the gender mainstreaming strategy, i.e. a deliberate consideration of gender in all stages of program and policy planning, implementation and evaluation. Even though the policy project activities, particularly the capacity building is demand driven, the project strongly emphasize on gender balance at all level of programing. During the quarter under review, the project made a deliberate attempt, ensuring an equal participation of both males and females to appropriately benefit from capacity building activities. As such, the project had 30.6 per cent female and 69.4 per cent male that participated in the organized events including workshops and seminars. The project will continue to ensure increase in female participation in the project's activities to ensure gender balance.

Third Quarter (April – June 2020)
In this quarter, the project had 38.9 per cent female and 61.1 per cent male that participated in the organized events including workshops and seminars. The project will continue to ensure increase in female participation in the project's activities to ensure gender balance.

Second Quarter (January – March 2020)
During this quarter, 30 per cent of the total participants trained by the project were female while 70 per cent were male. The project will continue to ensure increase in female participation in the project's activities to ensure gender balance.

First Quarter (October – December 2019)
In this quarter, 32 per cent of the total participants trained by the project were female while 68 per cent were male. The project will continue to ensure increase in female participation in the project's activities to ensure gender balance.

4. M&E PLAN UPDATE

Fourth Quarter (July – September 2020)
Project Evaluation
In line with the NAPP M&E plan, and as of end of the quarter under review, the project embarked on the assessment of agriculture and food security policy processes in Nigeria. This survey is the third round representing the end line, and it is part of the FtF-NAPP activity looking at the institutional architecture and quality of policy processes on agriculture and food security in Nigeria. The survey generates evidence to better inform the government (and indeed, all stakeholders) on the country's institutional architecture and quality of policy processes on agriculture and food security and thereby support policy reforms in the areas of need. In addition, the end line will help inform on how the effectiveness of the policy process in Nigeria has changed over time and within the lifetime of the policy project.

On September 16, 2020, the project participated in the end-line evaluation interview of the policy project. The interview, organized by DevTech and led by Prof. Olomola Aderibigbe, was aimed at understanding the achievements, challenges and lessons learned by the NAPP during the projects' life.

Support to FMARD's M&E System
The policy project worked with the National Agricultural Seed Council (NASC) and Projects Coordinating Unit (PCU) of FMARD to develop their M&E plan. The formal presentation of the

M&E Plan to NASC management is scheduled for next quarter following request by the institution's M&E focal person. Adopting and operationalizing the M&E plan is expected to help the institutions to track and improve its performance in line with the USAID support to improving the performance of its project stakeholders.

Third Quarter (April – June 2020)
During the third quarter, the project continued with the implementation of the approved Year 5 MEL Plan to track project achievements. The MEL plan is currently being reviewed following USAID approval of the no–cost extension of the project until December 31, 2020. The project also continues to update the USAID dedicated online folder with the evidence of outputs of the capacity building activities conducted through webinars and targeting the FTF focal states and stakeholders.

Data Quality Assessment
On 22 June 2020, the project participated in the FY 2020 Data Quality Assessment (DQA) on the indicator EG.3.2-2: Standard/Number of individuals who have received USG-supported degree-granting non nutrition-related food security training [IM-level]. The DQA meeting enabled DevTech and USAID to verify and validate the various project documents used in tracking data reported on the indicator. Prior to the DQA, the policy project had a meeting with DevTech on June 15, 2020 to understand and prepare important documents needed for the DQA. Following DevTech's clarifications, the various documents required for the scheduled FY 2020 DQA were made available to the DQA team prior the activity, which made it a smooth and successful activity.

Second Quarter (January – March 2020)
During the second quarter, the project continued with the implementation of the approved Year 5 Monitoring, Evaluation and Learning (MEL) Plan to track project achievements. The MEL plan is scheduled for reviews and updates in the third quarter, subject to the approval of the USAID/Nigeria Mission on the "No Cost Extension" of the project until December 2020.

The project also continues to update the USAID dedicated online folder with the evidence of outputs of the capacity building activities conducted at the FtF focal states.

First Quarter (October – December 2019)
During the first quarter, the project began the implementation of the approved Year 5 Monitoring, Evaluation and Learning (MEL) Plan. Notably, the project began the tracking of achievements on **FtF EG.3.1-12:** Number of agricultural and nutritional enabling environment policies analyzed, consulted on, drafted or revised, approved and implemented with USG assistance (RAA). This is a standard indicator which was previously archived in year 2 of the project. There were previous achievements on this indicator which the project continues to build on in the quarter under review and beyond. This indicator replaced the **EG.3.1-d:** Milestones in improved institutional architecture for food security policy achieved with USG support which was dropped based on the recommendation of the USAID/BFS MEL Advisor to the Mission. The **FtF EG.3.1-d** per the FtF Indicator Handbook, is a multi-level indicator collected and reported on by Country Mission staff. It is not a standard indicator reported by IPs.

Furthermore, per the updated FtF Handbook, the indicator "**FtF EG.3.2-1:** Number of individuals who have received USG supported short-term technical training in agricultural sector productivity or food security policy analysis training" was updated and replaced by the **FtF EG.3.2:** Number of individuals participating in USG food security programs and the project has thus started tracking

achievements on this updated indicator. The project also dropped the **NAP1.3.7:** Number of government units or division that have received short term training (USG) and replaced it by **FtF EG.3.2-29:** Percent of organizations with increased performance improvement with USG assistance. Resulting from this, the project is employing a performance improvement and measurement tool used for assessing performance across multiple domains called the Organizational Performance Index measurement tool (OPI) to track achievement on this indicator. The OPI endorsed by USAID helps set up baselines and measure change in organizational performance over time. It consists of a tool – the OPI – and a process that shapes data collection, analysis and usage. The OPI goes beyond measuring the short-term gains from capacity development such as "new systems in place", "dedicated human resources personnel hired", or "governing board set up". Its process assists the project and partners to understand the extent to which these outputs of capacity development support positive changes in the way organizations deliver services, relate to their stakeholders and react to changes in the external environment.

Following the approval from USAID on component 2, the project will start collecting and report data on the number of peer-reviewed publications published through FTFMS. According to the guidance from the USAID Senior Monitoring, Evaluation and Learning Specialist, through the project AOR, "this is a State/F indicator (STIR-12) that we report as part of the annual PPR and have previously had to collect through a separate data call".

The project is no longer tracking achievements on the indicator **EG.3.2-4:** Number of for-profit private enterprises, producers' organizations, water user's associations, women's groups, trade and business associations, and community-based organizations (CBOs) receiving USG food security related organizational development assistance (RAA) (WOG). This indicator was dropped per the updated FtF Handbook.

The project also continues to update the USAID dedicated online folder with the evidence of outputs of the capacity building activities conducted at the FtF focal states.

Staff Developments
Fourth Quarter (July – September 2020)
Due to COVID-19 policies, project staff continued to work remotely to achieve the planned activities. The project equipped staff with the necessary skills to effectively work remotely and achieve project objectives.

At the end of this quarter:
- The staff at the IFPRI Office in Abuja includes: 1 Research Fellow (Program Leader/Chief of Party), 1 Research Fellow, 1 Country Program Manager, 2 Research Analysts, 1 Admin and Finance Officer, 1 Senior Program Assistant, 1 Communications Assistant, 1 M&E Officer, 1 Postgraduate Intern, and 2 drivers.
- The staff at MSU associated with this project includes: 1 Associate Professor (Principal Investigator), 1 Distinguished Professor, 1 Associate Professor, 2 Assistant Professors, 1 Specialist, 1 Graduate Research Assistant, an Accountant, and a Travel Coordinator.

Third Quarter (April – June 2020)
Due to COVID-19 policies, project staff continued to work remotely to achieve the planned activities. The project equipped staff with the necessary skills to effectively work from home by

encouraging them to participate in online digital trainings including the use of MS Team and Zoom for effective communication, SurveyCTO application for phone surveys, and security trainings.

At the end of this quarter:
- The staff at the IFPRI Office in Abuja includes: 1 Research Fellow (Program Leader/Chief of Party), 1 Research Fellow, 1 Country Program Manager, 2 Research Analysts, 1 Admin and Finance Officer, 1 Senior Program Assistant, 1 Communications Assistant, 1 M&E Officer, 1 Postgraduate Intern, and 2 drivers.
- The staff at MSU associated with this project includes: 1 Associate Professor (Principal Investigator), 1 Distinguished Professor, 1 Associate Professor, 2 Assistant Professors, 1 Specialist, 1 Graduate Research Assistant, an Accountant, and a Travel Coordinator.

Second Quarter (January – March 2020)

At the end of this quarter:
- The staff at the IFPRI Office in Abuja includes: 1 Research Fellow (Program Leader/Chief of Party), 1 Research Fellow, 1 Country Program Manager, 3 Research Analysts, 1 Senior Program Assistant, 1 Program Assistant, 1 Communications Assistant, 1 M&E Officer, 1 Postgraduate Intern, and 2 drivers.
- The staff at MSU associated with this project includes: 1 Associate Professor (Principal Investigator), 1 Distinguished Professor, 1 Associate Professor, 2 Assistant Professors, 1 Specialist, 1 Graduate Research Assistant, an Accountant, and a Travel Coordinator.

First Quarter (October – December 2019)

At the end of this quarter:
- The staff at the IFPRI Office in Abuja includes: 1 Research Fellow (Program Leader/Chief of Party), 1 Research Fellow, 1 Country Program Manager, 3 Research Analysts, 1 Senior Program Assistant, 1 Program Assistant, 1 Communications Assistant, 1 M&E/Data Assistant, and 2 drivers.
- The staff at MSU associated with this project includes: 1 Associate Professor (Principal Investigator), 1 Distinguished Professor, 1 Associate Professor, 2 Assistant Professors, 1 Specialist, 1 Graduate Research Assistant, an Accountant, and a Travel Coordinator

5. LESSONS LEARNED

Fourth Quarter (July – September 2020)
Following the various efforts by stakeholders towards post-COVID-19 economic recovery and the demand for evidence-based research outputs, the project responded by quickly embarking on contemporary studies in this regard. Though the pandemic caused several restrictions, the project leveraged on available digital technologies to contribute to the discourse within the short time frame. The consumption of COVID-19 related research outputs by policy makers remained overwhelming, emphasizing the huge impacts of the pandemic. During the quarter, the project continued to work remotely as a default, adopting different digital technologies to carry out its activities, including stakeholder engagement and capacity building. This remains a strategy to significantly reduce staff exposure and vulnerability to the coronavirus.

Third Quarter (April – June 2020)
The project adapted and responded to the logistical disruptions associated with the COVID-19 pandemic by adopting various digital technologies. This made it possible for the project to engage effectively with its stakeholders and helped staff to telework and effectively deliver on the project activities. Even as lockdowns are relaxed, the project will continue to explore and leverage on digital technology to achieve its deliverables. This is one of the measures taken to reduce the staff exposure and vulnerability to the coronavirus.

The project also learned that though stakeholders are willing to participate in digital activities to seek relevant information for decision-making, challenges associated with internet connectivity and cost of access continue to affect participation. Pecuniary incentives, which often increase motivation, are necessary to help sustain interest in e-learning participation of stakeholders.

Second Quarter (January – March 2020)
General: In this final year of implementation, the project is continuing to review broader lessons learned throughout the life of the project. In summary, the project has helped lay the foundation for Nigeria's Journey to Self-Reliance and supported the emerging resilience of Nigeria's agricultural economy in five main areas: (1) Contributing to the policy process through research and communications (2) Building the capacity and effectiveness of stakeholders via formal trainings (3) Evidence generation via collaborative research with Nigerians (4) Expanded impact of capacity development through the "Train one to train others" approach of the Scholars program, and (5) strengthening of research networks and associations.

Specific to Y5, Q2: During the quarter under review, the project observed that its stakeholders/beneficiaries are adopting the skills they acquired during capacity building training, mentoring and coaching activities of the project. Though the project tracks these outcomes with beneficiaries, these outcomes as a result of donor's effort are better tracked and reported through proper collaboration with the leadership of the benefitting organizations. In this quarter and beyond, the project has developed a strategy which will be based on a round table meeting with the stakeholders on mutual agreement and sharing of information about their achievements which are attributable to the donor's effort.

First Quarter (October – December 2019)
A couple of lessons were learned during the first quarter.

First, as the project draws to a close, there is a compelling need to continue to document the ways in which the project has contributed to laying the foundation for Nigeria's Journey to Self-Reliance and supported the emerging resilience of Nigeria's agricultural economy. The project took one more step in this direction when the Chief of Party, Kwaw Andam, presented the project activities and contributions at the GFSS stakeholders meeting held in Asaba, Delta State, on November 21, 2019. The main highlights are as follows. First, the project has produced a large body of high-quality research and supported the agricultural policy network in Nigeria, thereby generating an evidence base for policies to reduce food insecurity and promote agricultural productivity. Almost all the research outputs involved collaboration between international and Nigerian scholars, thus achieving the twin goals of producing the research output and building local capacity. Second, the project has fostered the self-reliance of Nigeria's policymaking institutions by enhancing local capacity to plan, implement, and monitor agricultural policies. Third, the activity has fostered the development of the future policy researchers and policymakers of Nigeria by strengthening the capacity of young Nigerian scholars to undertake high quality research and to train other analysts across Nigeria. These scholars have also been trained on innovative ways to disseminate the findings of their technical research to broad groups of stakeholders such as government, private sector and civil society.

A second lesson was noted during the Monitoring, Evaluation and Learning capacity building with the FMARD. The feedback from the participants suggested that the project has assisted the Ministry in improving on their efficiency in better managing the activities of the Ministry. However, the capacity building activities should also target the directorate/leadership of the Ministry who are in front line in the release of funds to properly implement MEL activities. This came up when the staff of the Ministry mentioned that the leadership pay a lip service to MEL activities in the Ministry. The Ministry has an apex M&E unit which oversees all M&E activities across the departments, divisions and units in the ministry. There are also M&E unit embedded in the planning unit of various department of the ministry. The apex M&E unit usually takes over the M&E activities of these other constituent units leaving their M&E underperforming. A suggestion for a roundtable was made to address this glitch and improve on the synergy between the Ministry M&E unit and the M&E at departmental level. The project is planning to organize a round table workshop with the leadership of FMARD with specific focus on encouraging the Management to firm up the collaboration between units and sub-units of the FMARD and also buy into the concept of M&E which will further improve on-the-job performance of the staff in terms of improved service delivery.

A third lesson learned by the project is the diverse ways that the project activities, particularly the scholars program is having impact in Nigeria and beyond. The investment of a short tenure at Michigan State University by 13 scholars who continue to be mentored by MSU, is increasingly giving back. These scholars have not only trained over 1000 other Nigerians on data analysis, but the scholars (and their work) are gaining national and international recognition while contributing to important national and international debates geared towards more inclusive structural transformation in Nigeria and the rest of Africa. This demonstrates that the impact of capacity building efforts should be considered as a long-term process. It should be monitored well to accurately document the contributions and the return on USAID's investment on these scholars.

6. WHAT DOES USAID NOT KNOW THAT IT NEEDS TO?

Fourth Quarter (July – September 2020)
Improvement in Organization Performance.
During the FY2020, the project achieved 66.7 per cent of its annual target on "Number of organizations with increased performance improvement with USG assistance". The achievements were possible through the training, mentoring and coaching activities which were deliberately carried out during the year under review, to assist targeted organizations to improve on their performance. Specifically, the project adopted the USAID Organization Performance Index (OPI) measurement tool to train the targeted organizations. The project further worked with these organization on effective use of meeting as a key tool in decision making, development of tools including MEL plan and data collection tools. The organizations were able to hold regular meetings with proper documentation and use of standard template to document the meeting notes. Furthermore, with the assistance of the project, the organizations now have improved performance with the adoption of electronic data collection methodology, regular meetings and development of tools including MEL plan, work plan and attendance sheet for the organization activities.

Success Story
Agricultural Research Council of Nigeria (ARCN) is one of the project's stakeholders and benefitted from the project's activities during the year under review. Prior to this period, the organization adopted the indicator "Number of organizations with increased performance" from the NAPP's standard indicators, to track and report on their performance. The indicator was approved and included in the Ministerial scorecard. Following this achievement, the Executive Secretary, ARCN, approved the scale-up of the OPI to a Council wide initiative. Accordingly, ARCN conducted sensitization visit to all the Directors and Heads of Units in support of the initiative. Consequently, ARCN requested the NAPP to assist and build the capacity of its focal staff on further learning on the concepts of OPI to enable them to effectively improve and track the performance of their units. The training took place on September 2, 2020, and ARCN has carried out follow up exercise with the Service Improvement Unit (SERVICOM). This follow up involved a practical demonstration of measurements and action planning for a more effective step-down. It also studied the domains and sub-domains to demonstrate measurements and identify supportive evidences and planned appropriate actions to improve performance. Plans are underway to step-down to other staff of the Departments.

Third Quarter (April – June 2020)
In April 2020, Theodora Adene was promoted from Senior Program Assistant to Administration and Finance Officer while Amina Yakubu Bashir was promoted from Program Assistant to Senior Program Assistant. Fadare Olusegun resigned his appointment as a Research Analyst on 30 May 2020 to pursue further education.

Second Quarter (January – March 2020)
Adetunji Fasoranti has worked with the project as M&E Assistant on a consulting basis for 15 months beginning from December 2018. He was hired on a regular contract as the project MEL Officer in the second quarter of FY 2020 to oversee MEL activities. This follows the exit of the former project M&E specialist Ayuba Fagbemi Medinah in November 2019.

First Quarter (October – December 2019)

During the quarter under review, the M&E Specialist for the project, Ayuba Fagbemi Medinah, resigned from IFPRI to take up a new appointment with Creative Associate International implementing the USAID-funded FtF West Africa Trade and Investment Hub. Adetunji Fasoranti, the project's M&E Assistant with the support of the Country Program Manager now oversees the M&E activities of the project.

Elisabeth Douglas, Communication Specialist/Head of the Policy Communications Unit at Abuja office for 4 years (2015 – 2019) resigned from IFPRI in November 2019 in order to take up a new appointment at the African Development Bank as a Project Support Officer. Oyediran Bisola is now in charge of the project's communication activities. She has been working with IFPRI in the past 4 years as a Communication Assistant.

In Year 4, the project hired seven (7) consultants who worked as state coordinators in the FtF targeted sites. The project will no longer work with these collaborators in Year 5 of the project. However, their responsibilities are now being managed by the project staff.

ANNEX A: NUMBER OF HIGH-QUALITY RESEARCH REPORTS PUBLISHED HAVING UNDERGONE PEER REVIEW (INTERNAL/EXTERNAL) AND DISAGGREGATED BY TYPE (WORKING PAPERS AND JOURNAL ARTICLES) (Indicator 1)

Fourth Quarter (July – September 2020)						
Authors	**Date**	**Title**	**Publication Venue**	**Type of review: internal/ external**	**Type of Publication: working papers or journal article**
Andam, Kwaw S.; Edeh, Hyacinth; Oboh, Victor; Pauw, Karl; Thurlow, James.	July 2020	Estimating the Economic Costs of COVID-19 in Nigeria	http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/133846/filename/133846.pdf/mapsto/pdf	Internal	Working paper 69
Balana, Bedru; Oyeyemi, Motunrayo.	August 2020	Credit Constraints and Agricultural Technology Adoption – Evidence from Nigeria	http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/133937/filename/133937.pdf/mapsto/pdf	Internal	Working paper 64
Adebayo Ogunniyi; Suresh Chandra Babu; Bedru Balana; Kwaw Andam	July 2020	National Extension Policy and State-Level Implementation. The Case of Cross River State, Nigeria	http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/133811/filename/133811.pdf/mapsto/pdf	Internal	IFPRI Discussion Paper 01951
Hiroyuki Takeshima; Jenny Smart; Hyacinth O. Edeh; Motunrayo Ayowumi Oyeyemi; Bedru Balana; Kwaw Andam	July, 2020	Public Expenditures on Agriculture at Subnational-Levels and Household-Level Agricultural Outcomes in Nigeria.	http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/133848/filename/133848.pdf/mapsto/pdf	Internal	IFPRI Discussion Paper 01952
Hiroyuki Takeshima; Bedru Balana; Jenny Smart; Hyacinth Edeh; Motunrayo Ayowumi Oyeyemi; Kwaw Andam	July 2020	Effects of Public Expenditures on Agriculture at Subnational Levels on Households' Welfare and Economic Resilience in Nigeria.	http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/133854/filename/133854.pdf/mapsto/pdf	Internal	IFPRI Discussion Paper 01955

Fourth Quarter (July – September 2020)						
Authors	**Date**	**Title**	**Publication Venue**	**Type of review: internal/ external**	**Type of Publication: working papers or journal article**
Mulubrhan Amare; Kibrom A. Abay; Luca Tiberti; Jordan Chamberlin	August 2020	Impacts of COVID-19 on Food Security Panel Data Evidence from Nigeria	http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/133866/filename/133866.pdf/mapsto/pdf	Internal	IFPRI Discussion Paper 01956
Ademola, O., Turna, N. S., Liverpool-Tasie, L. S. O., Obadina, A., & Wu, F.	September 2020	Mycotoxin reduction through lactic acid fermentation: Evidence from commercial ogi processors in southwest Nigeria.	Food Control 121 (2021) 107620. https://doi.org/10.1016/j.foodcont.2020.107620	External	Journal
Liverpool-Tasie, L.S.O. and Parkhi, C.	2020	Climate risk, adaptation, and technology adoption in the midstream of crop value chains: Evidence from Nigerian maize traders.	Journal of Agricultural Economics. https://doi.org/10.1111/1477-9552.12394	External	Journal
Omonona, B., Liverpool-Tasie, L. S.O., Sanou, A., & Ogunleye, W.	2020	The profitability of inorganic fertilizer use in sorghum production: Evidence from Nigeria.	Forthcoming in Nigerian Journal of Agricultural Economics	External	Journal

Third Quarter (April – June 2020)						
Authors	**Date**	**Title**	**Publication Venue**	**Type of review: internal/ external**	**Type of Publication: working papers or journal article**
Amare, Mulubrhan; Arndt, Channing; Mahrt, Kristi; Mavrotas, George.	April, 2020	Polygynous family structure and child undernutrition in Nigeria	http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/133706/filename/133706.pdf/mapsto/pdf	Internal	Working Paper 61
Amare, Mulubrhan; Balana, Bedru; Ogunniyi, Adebayo	May, 2020	The role of agriculture in reducing child undernutrition in Nigeria	http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/133740/filename/133740.pdf/mapsto/pdf	Internal	Working Paper 62
Suresh Chandra Babu, Adebayo Ogunniyi, Bedru Balana, Kwaw S. Andam	June 2020	National Extension Policy and State Level Implementation: The Case of Niger State in Nigeria	https://www.ifpri.org/publication/national-extension-policy-and-state-level-implementation-case-niger-state-nigeria	Internal	IFPRI Discussion Paper 01942
Laura Schmitt Olabisi, Robert Ugochukwu Onyeneke, Onyinye Prince Choko, Stella Nwawulu Chiemela, Lenis Saweda O. Liverpool-Tasie, Anthonia Ifeyinwa Achike and Adedapo Ayo Aiyeloja	2020	Scenario Planning for Climate Adaptation in Agricultural Systems	Agriculture 2020, 10(7), 274; https://doi.org/10.3390/agriculture10070274	External	Journal Article
Liverpool-Tasie, L. S., Pummel, H., Tambo, J. A., Olabisi, L. S., & Osuntade, O	2020	Perceptions and exposure to climate events along agricultural value chains: Evidence from Nigeria	Journal of Environmental Management 264:110430 · June 2020	External	Journal Article

Second Quarter (January – March 2020)

Authors	Date	Title	Publication Venue	Type of review: internal/external	Type of Publication: working papers or journal article
1. Sanou, A., Liverpool-Tasie, L.S.O. & Kerr, J.	2020	Threshold investment and firm viability: Evidence from commercial poultry farms in Nigeria.	Agribusiness. https://doi.org/10.1002/agr.21639	External	Journal Article
2. Mywish K. Maredia, John Mazunda, Oyinkan Tasie, and Medinah Ayuba	2020	How Do Stakeholders Perceive the Quality of Agriculture and Food Security Policy Processes in Nigeria? Results from Two Rounds of Surveys	Feed the Future Innovation Lab for Food Security Policy Research Paper 166	Internal	Working Paper

First Quarter

Authors	Date	Title	Publication Venue	Type of review: internal/external	Type of Publication: working papers or journal article
1. Liverpool-Tasie L, Saha Turna N, Ademola O, Obadina A, Wu F	2019	The occurrence and co-occurrence of aflatoxin and fumonisin along the maize value chain in southwest Nigeria	Food and Chemical Toxicology 129:458-65.	External	Journal Article
2. Reardon, T., T. Awokuse, S. Haggblade, T. Kapuya, S. Liverpool-Tasie, F. Meyer, B. Minten, D.	2019	Private Sector's Role in Agricultural Transformation in Africa: Overview	Chapter 1 in AGRA.	External	Journal Article

	Nyange, J. Rusike, D. Tschirley, R. Vos.				
3.	Reardon, T., T. Awokuse, S. Haggblade, T. Kapuya, S. Liverpool-Tasie, F. Meyer, B. Minten, D. Nyange, J. Rusike, D. Tschirley, R. Vos	2019	The Quiet Revolution in Agri-food Distribution (Wholesale, Logistics, Retail) in Sub-Saharan Africa	Chapter 2 in AGRA.	External	Journal Article
4.	Reardon, T., T. Awokuse, S. Haggblade, T. Kapuya, S. Liverpool-Tasie, F. Meyer, B. Minten, D. Nyange, J. Rusike, D. Tschirley, R. Vos	2019	The Quiet Revolution and Emerging Modern Revolution in Agri-food Processing in Sub-Saharan Africa	Chapter 3 in AGRA.	External	Journal Article
5.	Awokuse, T., T. Reardon, A.O. Salami, N.A. Mukasa, T. Tecle, F. Lange	2019	Agricultural Trade in Africa in an era of Food System Transformation: Policy Implications	Chapter 4 in AGRA.	External	Journal Article
6.	Meyer, F.H., T. Davids, T. Kapuya, P. Westhoff, T. Reardon.	2019	Avoid Hitting the Wall by Leveraging Investments of Midstream Heroes in African Food Value Chains	Chapter 6 in AGRA.	External	Journal Article
7.	Liverpool-Tasie, LSO, I. Okuku, R. Harawa, T. Reardon, S. Wallace.	2019	Africa's Changing Fertilizer Sector and the Role of the Private Sector	Chapter 9 in AGRA.	External	Journal Article

ANNEX B: NUMBER OF PARTICIPANTS ATTENDING PROJECT ORGANIZED RESEARCH AND POLICY EVENTS (Indicator 2)

	Location	Participants[3]
Third Quarter (April – June 2020)		
1. Public Expenditure on Agriculture and Household-Level Outcomes in Nigeria	Virtual	Total: 16 (Male: 12, Female: 4)
2. Agricultural Supply Chain Situational Analysis and Post Pandemic Recovery Plans: National Preparedness and The Role of Private Sector	Virtual	Total: 138 (Male: 88, Female: 50)
3. COVID-19 and its Impact on Nigerian Agriculture. April 1, 2020	Virtual	Total: 32 (Male: 16, Female: 16)
4. COVID -19 and Its Impact on Nutrition and Health of Vulnerable Persons in Nigeria. April 8, 2020	Virtual	Total: 43 (Male: 22, Female: 21)
5. COVID-19 and Its Impact on the Environment in Nigeria in a Global Context. April 15, 2020	Virtual	Total: 67 (Male: 32, Female: 35)
6. COVID-19 and Agricultural Policy Research in Nigeria. April 22, 2020	Virtual	Total: 71 (Male: 36, Female: 35)
7. Gendered Impacts of Covid-19 on Livelihoods Nigeria 29 April 2020	Virtual	Total: 77 (Male: 39, Female: 38)
8. COVID-19 and its Impact on Agribusiness in Nigeria. 6-May-20	Virtual	Total: 53 (Male: 33, Female: 20)
9. A Discussion of the Nigerian Economy Post COVID-19. 13 May 2020	Virtual	Total: 37 (Male: 23, Female: 14)

	Location	Participants[4]
Second Quarter (January – March 2020)		
1. Number of People reached by aflatoxin research team in 8 weeks minus those reached in 2019	Ebonyi State	Total: 4340 (Male: 1734, Female: 2606)
2. USAID/Nigeria Nutrition Interactive Session - 20 Feb 2020;	Fraser Suites, CBD, Abuja	Total: 58 (Male: 32; Female: 26)
3. Number of People reached by aflatoxin research team in 8 weeks	Niger State	Total: 6138 (Male: 3254, Female: 2884)
4. Number of People reached by aflatoxin research team i in 8 weeks	Benue State	Total: 1391 (Male: 509, Female: 882)
5. Number of People reached by aflatoxin research team i in 8 weeks minus those reached in 2019	Ogun State	Total: 335 (Male: 156, Female: 179)

First Quarter (October – December 2019)		
1. Nutrition and Dietary Diversity in Nigeria	MSU. Department of Agricultural, Food and Resource Economics. 5 Nov. 2019	Academic 15 Participants (Male-10, Female-5)
2. Aspects of Land Research in Nigeria, Presentations and Panel Discussion.	MSU. Department of Agricultural, Food and Resource Economics. 11 Nov. 2019	Academic 18 Participants (Male-13, Female-5)
3. Combined Session: Towards Urban Agriculture: Assessing Land Grabbing and Access in South East Nigeria and Effects of Agricultural Policies on Rice Production Systems in Kebbi State, Northwest Nigeria	MSU. Department of Agricultural, Food and Resource Economics. 18 Nov. 2019	Academic 13 Participants (Male-7, Female-6)
4. Aflatoxin Dissemination	Ogun State, Ijebu Region (between December 4th and 11th.)	Private Sector and Civil Society: 40 Participants (Male-19, Female-21)
5. Aflatoxin Dissemination	Ogun State, Yewa Region (between December 4th and 11th.)	Private Sector and Civil Society: 47 Participants (Male-41, Female-6)
6. Aflatoxin Dissemination	Ogun State, Egba Region (between December 4th and 11th.)	Private Sector and Civil Society: 41 Participants (Male-26, Female-15)

ANNEX C: NUMBER OF INDIVIDUALS PARTICIPATING IN USG FOOD SECURITY PROGRAMS (Indicator 4)

Fourth Quarter (July – September 2020)							
Date	Location	Topic	Participants				
			Type	Male	Female	15-29	30+
1.1 National Trainings							
1.1.1 National Capacity Building and Mentoring Activities							
July 6, 2020	Virtual	Policy Brief writing	Government	16	3	0	19
July 21, 28 & August 12, 2020	Virtual	CAPI-Based technical training of enumerators on Phone Survey Management and Administration	Enumerators	13	10	4	19
September 1, 2020	Virtual	Organizational Performance Tracking and Goal setting.	Government	16	6	0	22
September 2 – 4, 2020	Virtual	Monitoring and Evaluation Training	Government	12	14	0	26
September 8 – 9, 2020	PCU Office, Abuja	African Continental Free Trade Area: Institutional roles and emerging challenges	Government	23	7	1	29
September 16 – 17, 2020	Virtual	Policy Communication Training to Journalist	Stakeholders	5	6	0	11
September 28 – 30, 2020	Virtual	Monitoring and Evaluation Training	Government	19	16	0	35

Third Quarter (April – June 2020)							
Date	Location	Topic	Participants				
			Type	Male	Female	15-29	30+
1.1 National Trainings							
1.1.1 National Capacity Building and Mentoring Activities							
June 2, 2020	Virtual	Organizational Performance Tracking and Goal setting.	Stakeholders	11	2	1	12
June 22, 2020	Virtual	Gap Analysis and Investment Plan Development in Agricultural Extension Service Delivery	Government	12	1	0	13

Second Quarter (January – March 2020)							
Date	**Location**	**Topic**	**Participants**				
			Type	**Male**	**Female**	**15-29**	**30+**
1.1 FMARD/National Trainings							
1.1.1 FMARD/National Capacity Building and Mentoring Activities							
February 17 – 18, 2020	FADAMA House, Abuja	Survey Design and Management	FMARD	18	6	0	24
February 27 – 28, 2020	IFDC Conference Room Abuja	Nigeria Agricultural Policies and Strategies	NASS Press	9	4	0	13
1.1.2 Universities							
January 15 – 17, 2020	Federal University of Technology, Minna, Niger State	Introduction to Monitoring, Evaluation and Learning	Academia	19	6	0	25
January 15 – 16, 2020	University of Calabar, Cross River State	Survey Design and Management	Academia	24	2	0	26
January 27-31, 2020	Ebonyi State University	Training Workshop on R	Academia	17	6	0	23
February 17-21, 2020	Ibrahim Badamasi Babangida (IBB) University, LAPAI, Niger State	Training Workshop On R	Research and academic	22	3	0	25
March 17-21, 2020	Ahmadu Bello University, Zaria	Training Workshop On R	Research and academic	18	3	1	20
March 18 – 20, 2020	Delta State University, Asaba, Delta State	Introduction to Monitoring, Evaluation and Learning	Academia	16	7	0	23
1.2. State trainings and capacity building efforts							
January 13 -14, 2020	State Ministry of Agriculture and Natural Resources,	Survey Design and Management	State Ministry of Agriculture	16	9	0	25

Second Quarter (January – March 2020)							
Date	Location	Topic	Participants				
			Type	Male	Female	15-29	30+
	Calabar, Cross River State						
January 16 – 17, 2020	State Ministry of Agriculture and Natural Resources, Abakaliki, Ebonyi State	Agricultural Policy Formulation, Presentation and Analysis	State Ministry of Agriculture	16	15	0	31
January 20-24, 2020	Ministry of Agriculture, Abakaliki, Ebonyi State.	R Training for staff of Ministry of Agriculture	Government sector	14	4	0	18
January 21 – 23, 2020	Ministry of Agriculture and Natural Resources, Asaba, Delta State	Introduction to Monitoring, Evaluation and Learning	State Ministry of Agriculture	21	6	0	27
January 21 – 22, 2020	Ministry of Agriculture, and Natural Resources, Makurdi Benue State	Nigeria Agricultural Policies and Strategies	State Ministry of Agriculture	17	9	0	26
January 27-28, 2020	State Ministry of Agriculture and Rural Development, Mina, Niger State Secretariat	Nigeria agricultural project policy (NAPP) maize management dissemination training programme	Government sector (27), Civil Society (22)	40	10	16	34
January 30-31, 2020	Federal Ministry of Agriculture, Makurdi	Aflatoxin Training for Dissemination in Benue State	Government Sector (18), Research and Academic organizations (6)	7	17		24
February 5 – 6, 2020	Ministry of Agriculture,	Nigeria Agricultural Policies and Strategies	State Ministry of Agriculture	17	8	2	23

Second Quarter (January – March 2020)							
Date	Location	Topic	Participants				
			Type	Male	Female	15-29	30+
	and Forestry, Kaduna State						
February 11 – 12, 2020	Asaba, Delta State	Policy Communication Training	Journalist	15	5	0	20
February 24-28, 2020.	Ministry of Agriculture and Natural Resources Minna, Niger State	Training Workshop On R	Government sector (24)	19	5	0	24
Activity 1.3: Nigerian Graduate Student Capacity Building							
Please note that all of the Capacity Building/Trainings that the Scholars provided are recorded in 1.1.2 and 1.2							

First Quarter (October – December 2019)							
Date	Location	Topic	Participants				
			Type	Male	Female	15-29	30+
1.1 FMARD/National Trainings							
1.1.1 FMARD/National Capacity Building and Mentoring Activities							
November 18 – 20, 2019	FADAMA House, Abuja	Introduction to Monitoring, Evaluation and Learning	FMARD	15	9	1	23
December 11-13, 2019	FADAMA House, Abuja	Introduction to Monitoring, Evaluation and Learning	FMARD	6	21	0	27
1.1.2 Universities							
November 25 - 26, 2019	Kebbi State College of Agriculture, Zuru	Training on Nigeria Agricultural Policies and Strategies	Academia	21	1	0	22
November 27 – 29, 2019	University of Agriculture, Makurdi, Benue State	Introduction to Monitoring, Evaluation and Learning	Academia	17	6	0	23
1.2. State trainings and capacity building efforts							
November 28 – 29, 2019	Kebbi State Ministry of Agriculture, Kebbi State	Training on Nigeria Agricultural Policies and Strategies	State Ministry of Agriculture	20	1	0	21

First Quarter (October – December 2019)							
Date	Location	Topic	Participants				
			Type	Male	Female	15-29	30+
Activity 1.3: Nigerian Graduate Student Capacity Building							
November 26-27, 2019	Abeokuta, Ogun State i	Training for community dissemination on maize handling practices to Reduce Aflatoxin contamination	Civil society	18	4	17	5
December 17 – 18, 2019	Abakaliki, Ebonyi State	Training for community dissemination on maize handling practices to Reduce Aflatoxin contamination	Ebonyi State University and Ebonyi State Agricultural Development Program	17	9	13	13

ANNEX D: NUMBER OF INDIVIDUALS WHO HAVE RECEIVED USG SUPPORTED DEGREE-GRANTING NON-NUTRITION-RELATED FOOD SECURITY TRAINING IN FY 2020. (Indicator 5)

Nothing to report in Fourth and Third Quarters.

Second Quarter (January – March 2020)

Name	Duration	Gender
Balaraba, Abubakar Sule	Completed	Female
Chukwudi, Charles Olumba	Completed	Male
Obekpa, Hephzibah Onyeje	Completed	Female

First Quarter (October – December 2019)

Name	Duration	Gender
Balaraba, Abubakar Sule	Continuing	Female
Chukwudi, Charles Olumba	Continuing	Male
Obekpa, Hephzibah Onyeje	Continuing	Female

ANNEX E: NUMBER OF INDIVIDUALS WHO HAVE RECEIVED USG SUPPORTED DEGREE-GRANTING NON-NUTRITION-RELATED FOOD SECURITY TRAINING DURING THE LIFE OF THE PROJECT.

Nothing to report in Fourth and Third Quarters.

Second Quarter (January – March 2020)

Name		Institution	Degree Level
Fall 2016			
1-3	Charity Ekerebi	University of Ibadan, Nigeria	MS
Fall 2016, Spring 2017			
1-3	Wale Ogunleye	University of Ibadan, Nigeria	PhD
Spring 2017			
1-3	Aisha Ibrahim	Ahmadu Bello University, Zaria	MS
Fall 2017			
4-5	Ufedo Monday Shaibu	Kogi State University Anyigba	MS
4-5	Oluwatoyin Motunrayo Ademola	University of Agriculture, Abeokuta	MS
Spring 2018			
6-8	Stella Nwawulu Chiemela	University of Nigeria, Nsukka, Enugu State, Nigeria	PhD
Spring and Fall 2018			
6-8	Osayanmon Wellington, Osawe	University of Ibadan, Nigeria	PhD
6-8	Blessing, Agada	Federal University of Agriculture Makurdi	PhD
Fall 2018			
9-10	Choko, Onyinye Prince	University of Port Harcourt	MS
9-10	Philip, Hegarty James	Federal University of Agriculture Makurdi	MS
Spring and Fall 2019			
11-13	Balaraba, Abubakar Sule	Federal University of Technology Minna	PhD
11-13	Chukwudi, Charles Olumba	Ebonyi State University, Abakaliki, Ebonyi	PhD
11-13	Obekpa, Hephzibah Onyeje	University of Agriculture Makurdi	PhD

First Quarter (October – December 2019)

Name		Institution	Degree Level
Fall 2016			
	Charity Ekerebi	University of Ibadan, Nigeria	MS
Fall 2016, Spring 2017			
	Wale Ogunleye	University of Ibadan, Nigeria	PhD
Spring 2017			
	Aisha Ibrahim	Ahmadu Bello University, Zaria	MS
Fall 2017			
	Ufedo Monday Shaibu	Kogi State University Anyigba	MS
	Oluwatoyin Motunrayo Ademola	University of Agriculture, Abeokuta	MS
Spring 2018			
	Stella Nwawulu Chiemela	University of Nigeria, Nsukka, Enugu State, Nigeria	PhD
Spring and Fall 2018			
	Osayanmon Wellington, Osawe	University of Ibadan, Nigeria	PhD
	Blessing, Agada	Federal University of Agriculture Makurdi	PhD
Fall 2018			
	Choko, Onyinye Prince	University of Port Harcourt	MS
	Philip, Hegarty James	Federal University of Agriculture Makurdi	MS
Spring and Fall 2019			
	Balaraba, Abubakar Sule	Federal University of Technology Minna	PhD
	Chukwudi, Charles Olumba	Ebonyi State University, Abakaliki, Ebonyi	PhD
	Obekpa, Hephzibah Onyeje	University of Agriculture Makurdi	PhD

ANNEX F: NUMBER OF AGRICULTURE POLICY COMMUNICATIONS DEVELOPED AND/OR WRITTEN FOR STAKEHOLDER CONSUMPTION (Indicator 7)

Fourth Quarter (July – September 2020)

Full citation of the communication			
Authors	**Date**	**Title**	**Publication Venue**
Bedru Balana, Motunrayo Oyeyemi, and Todd Benson	September, 2020	Do Credit Constraints Affect Agricultural Technology Adoption? Evidence from Nigeria.	http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/134000/filename/134000.pdf/mapsto/pdf

Third Quarter (April – June 2020)

Full citation of the communication			
Authors	**Date**	**Title**	**Publication Venue**
Olivier Ecker, Andrew Comstock, Raphael Babatunde, and Kwaw Andam	April, 2020	Poor Dietary Quality is Nigeria's Key Nutritional Problem	Policy Research Brief 119: IFPRI Washington

Second Quarter (January – March 2020)

Full citation of the communication			
Authors	**Date**	**Title**	**Publication Venue**
1. Hephzibah O. Obekpa.	2020	Nigerian Scholars train staff of the Ministry of Agriculture and Natural Resources in Ebonyi State.	Nigeria Highlights 66, East Lansing: MSU
2. Philip Hegarty James.	2020	Project Scholars Train Staff of Faculty of Agriculture and Natural Resources Management, Ebonyi State University, Abakaliki on "R" For Statistical Computing.	Nigeria Highlights 67, East Lansing: MSU
3. Oluwatoyin Adebowale.	2020	Aflatoxin Dissemination and Training Programme in Niger State.	Nigeria Highlights 68, East Lansing: MSU
4. Oluwatoyin Adebowale.	2020	Aflatoxin Dissemination and Training Programme in Benue State.	Nigeria Highlights 69, East Lansing: MSU
5. Balaraba Sule	2020	Reaping the Benefit of the Visiting Scholar Program of the Nigeria	Nigeria Highlights 70, East Lansing: MSU

Full citation of the communication			
Authors	Date	Title	Publication Venue
		Agricultural Policy Project: Training on R Statistical Software.	
6. Hephzibah Onyeje Obekpa.	2020	Training and Mentoring on R Now Extended to state of Ministry of Agriculture and Natural Resources, Minna, Niger State.	Nigeria Highlights 71, East Lansing: MSU

First Quarter (October – December 2019)

Full citation of the communication			
Authors	Date	Title	Publication Venue
1. Blessing Iveren Agada	Nov. 2019	Taking a Chance on Me! The Ripple Effects of the NAPP Capacity Building Module of Train One to Train Others'	Nigeria Highlights 65, East Lansing: MSU.
2. Godwin A Abu	Nov. 2019	Highlights of My Visit to Michigan State University.	Nigeria Highlights 64, East Lansing: MSU.
3. Ayodeji Alexander Coker	Nov. 2019	Tapping from the Proceedings of the Michigan State House of Representatives' Committee on Agriculture- My MSU Experience	Nigeria Highlights 63, East Lansing: MSU.
4. Balaraba Sule	Nov. 2019	Nigeria Agricultural Policy Project Scholars' Program: Opportunity for Empowerment, Professional Linkages and Replication of Best Practices Highlights 62, Dr. Ayodeji Alexander Ajibola Coker, November 2019. The Lattice Community: An Innovative Experiment	Nigeria Highlights 61, East Lansing: MSU.
5. Jonathan Okechukwu Alimba	Nov. 2019	The Project Scholar Program: A Rare Privilege and Wonderful Experience Worth Sharing.	Nigeria Highlights 60, East Lansing: MSU.
6. Sule, B. A., Crawford, E. and Coker, A. A. A.	Dec. 2019	Competitiveness and Comparative Advantage of Rice Production Systems: The Policy Analysis Matrix Approach	FSP Research Brief 102, East Lansing: MSU.
7. Ayodeji Alexander Ajibola Coker and Balaraba Sule	Dec. 2019	Entrepreneurial Skills and Job Preference among Agriculture Undergraduates: Evidence from Niger State, Nigeria	FSP Research Brief 114, East Lansing: M MSU.

Full citation of the communication			
Authors	**Date**	**Title**	**Publication Venue**
8. Sule, B. A., Crawford, E. and Coker, A. A. A.	Dec. 2019	Competitiveness and Comparative Advantage of Rice Production Systems: The Policy Analysis Matrix Approach	FSP Research Brief 102, East Lansing: MSU.
9. Julianah Olayemi Odukoya	Dec. 2019	Aflatoxin video produced in Yoruba	Nigeria

ANNEX G: PROJECT SUCCESS STORIES

Fourth Quarter (July – September 2020)

Analysis of COVID-19 impacts reaches global audience:
The project presented findings of the analysis of the economywide impacts of COVID-19 in Nigeria to a global audience on August 11, 2020 during a policy seminar event titled, "COVID-19's Short-term Impacts on Economies, Food Systems and Poverty in African And Asian Countries: Economywide Estimates from Economywide Models". This virtual event was co-organized by the project and the CGIAR Research Program on Policies, Institutions, and Markets (PIM) and attended by 565 participants from around the world with backgrounds in research, development practice and the media participated. Chris Hillbruner, USAID Division Chief, Analysis and Learning Division, Office of Policy, Analysis, and Engagement, Bureau for Resilience and Food Security provided remarks at the virtual event. USAID mission support for this analysis in Nigeria, Myanmar, and elsewhere was duly acknowledged. Seminar recording available at this link: https://www.ifpri.org/event/virtual-event-covid-19s-short-term-impacts-economies-food-systems-and-poverty-african-and

Project supports development of Nigeria's national development plans:
The project continues to support the Technical Working Group (TWG) on Agriculture, Food Security, and Rural Development for the Medium-Term National Development Plans (MTNDP), 2021-2025; 2026-2030, and Nigeria Agenda 2050 with reviews, data, analysis, and participation in the policy dialogue and policy prioritization. As part of this work, on September 24, 2020, NAPP researchers made a presentation to the Ministry of Finance, Budget, and Planning on policy prioritization approaches for the following high-growth cluster sectors:

- Agriculture, Food Security and Rural Development
- Oil and Gas
- Financial Sector and Capital Market
- Solid Mineral, Mining Steel Development
- Digital Economy, Bioeconomy, Science, Technology and Innovation
- Housing and Urban Development
- Culture, Tourism, Creative Industry and Hospitality

The draft MTNDP-2025 for agriculture, food security, and rural development is under review and expected to be completed by end of 2020.

Project provides technical guidance for the Key Political Partners Group (KPPG):
The project has been working within a select Agricultural Donor Working Group Task Team (includes USAID, DFID, EU, World Bank, and IFPRI) to develop an agriculture policy note and topics for a high-level discussion between the Vice-President and the Key Political Partners Group (KPPG). The KPPG includes the US ambassador, UK high commissioner, World Bank country director, and UNDP representative. Through this activity, USAID's support is promoting evidence-based policy formulation and implementation for the agriculture sector in Nigeria, especially during this critical period after COVID-19. The project is providing technical guidance to development partners and the

Government of Nigeria towards strengthening policy development and implementation critical for revival and sustainability of the economy during and after the COVID-19 period.

Third Quarter (April – June 2020)

Evidence-generation and policy influence during COVID-19:
The Policy Project conducted a simulation modeling study to estimate both direct and indirect impacts of these responses on Nigeria's economy. The findings of the study have been communicated at various events. This has helped the government, civil society, and development partners, particularly the ADWG to better understand the severity of the pandemic on the Nigeria economy, particularly the unanticipated impacts on the agri-food sector and poverty impacts. For example, the USAID mission director highlighted the findings on COVID-19 impacts during the GFSS event, and various development partners (e.g. DFID and World Bank) have cited the work in providing guidance to the government.

The Policy Project has also documented, on a weekly basis since March 1, 2020, the federal and state level policy responses to COVID-19. The policies are included in a public-access online database that includes policy responses from several countries, known as the COVID-19 Policy Response (CPR) Portal, available at https://www.ifpri.org/project/covid-19-policy-response-cpr-portal. This database is a repository of information on public policies during the pandemic, which has been made available for researchers and policy-makers.

Towards strengthening of Federal Agricultural Institutions:
As part of efforts to strengthen projects' monitoring and evaluation within federal agricultural institutions in Nigeria, the project supported the NASC to develop its MEL plan that was hitherto not available within the organization. The development of the plan followed series of interactions with the management of the council through its staff members earlier trained by the project on monitoring and evaluation. With this in place, the project plans to support the council in tracking its performance in line with its set objectives in the plan.

In line with the USAID support to improving the performance of its project stakeholders, the Policy project trained its stakeholders on various ways to set goals, improve and track performance using the Organization Performance Index tool. ARCN was among the beneficiaries of the training. The OPI was initially adapted to only one Department of ARCN. In view of its effectiveness and alignment with the organizational vision, ARCN adopted the OPI tool with plans to train staff of other Departments within the Council and its Field Offices on measures to improve organization performance as part of its upscaling strategy. The ARCN-IFPRI Project Desk is collaborating with Service Compact (SERVICOM) Unit to achieve this important goal.

Second Quarter (January – March 2020)

USAID/Nigeria Multisectoral Nutrition Strategy:

The project supported the USAID/Nigeria and Partners Nutrition Interactive Workshop on February 19, 2020 and organized a technical session. The presentations summarized some of the key findings from research conducted under the project and provided insights for the strategy. Workshop participants appreciated the session and the project received a commendation from USAID/Nigeria

(From email correspondence February 21, 2020: "I sincerely thank you and your team for the outstanding support you provided in organizing and hosting the USAID and Partners Nutrition and Interactive Session yesterday. The presentations by your team were spot-on and, thanks to your efforts, the videoconferencing support and logistics enhanced the effectiveness of the session. I believe the session was very productive and that the success of the interaction was due, in no small part, to support that your team provided" – Dr. Samba Kawa (AOR, NAPP). The project is continuing to provide insights towards the development of the strategy.

Towards Organization Performance Improvement:

As part of the project mandate to assist its key stakeholders in improving on their performance, the NAPP built the capacity of stakeholders on the use of the organization performance index (OPI) measurement tool in FY 2019. FMARD and ARCN reported adoption of the tool and its resourcefulness in tracking the performance of various arms of the ministry over time. The organization performance improvement tracking is now included as a component in the ministerial score card for the year.

Towards the Outcome of Capacity Building Activities

The project continues to demonstrate its effectiveness in disseminating techniques and results at the frontier of knowledge across the targeted states. Daniel Atori – a chief correspondent with the New Telegraph Newspaper in Niger State confirmed that in the last two years, he attended several trainings (including one on policy communication) organized by the project. He is now unleashing the knowledge from the trainings to other journalists and relevant stakeholders in the agricultural sector in the state. Mr. Atori announced that he had organized workshops, trainings and seminars, where he enlightened participants on the importance of social media for information dissemination. Within the quarter under review, Mr. Atori organized the first Niger State Media Summit for students and youths of the state. He anchored the event using the skills garnered from the project's trainings. Resulting from his overwhelming achievement, he was given a privileged invitation to deliver a lecture on "How to Pitch", at the Ibrahim Badamasi Babangida (IBB) University, Lapai.

In FY 2019, the NAPP organized a MEL training for the staff of FMARD where Ms. Mary Onaolapo of the Federal Department of Agricultural Extension (FDAE), FMARD was one of the most responsive participants. During this time, Ms. Mary demonstrated high competencies in her understanding of the concept of MEL. This encouraged the project to involve her in the delivery of MEL trainings to two targeted groups in the quarter under review. Ms. Mary has thereafter trained some of her colleagues on the concept of MEL. She also participated in the development of the 2020 annual workplan and budget for her division within the Federal Department of Agricultural Extension (FDAE) of FMARD using the skills gained during the NAPP MEL training. In line with the FGN overall strategies, Ms. Mary properly reviewed and updated the objectives of the department and introduced indicators to their workplan to enable the department track their achievements over time. Unlike in the past when the department only tracked output achievements, Mary introduced outcome indicators that the department is now tracking to show its impact on stakeholders. Mary demonstrated to her institution the importance and need to establish a MEL unit in the department (which the Deputy Director - Mr. Ifidon Ohiomona is keen about as the proposal is under discussion) pending approval of the director.

Strengthening the agricultural policy research community: APRNet

The project continues to support the research and policy communications efforts of local agricultural policy networks. One of such networks is the Agricultural Policy Research Network (APRNet) which has since justified the project's funding support as indicated by its outputs below.

- Engaged over 7 States in agricultural and food policy dialogues and advocated for positive policy changes in these states regarding food and agriculture in addition to providing platforms for the states to showcase their achievements in agriculture and food sector.
- Trained over 400 farmers, scientists, policy makers, agribusiness leaders and scholars nationwide within 2 years under its capacity building programmes.
- Brought the media to sit and strengthen their integration into the agricultural development process by stimulating their consciousness in reporting food and agricultural issues.
- Produced the Nigerian Agricultural Policy Research Journal which is now at volume 7.
- Conducted and funded a collaborative research to assess the effectiveness of aid to agriculture sector in Nigeria and Ghana.
- Reviewed and made critical inputs to policies of the Federal Government in agriculture using its stakeholders' forums with 3 communiqués from these and 7 communiqués from 7 seminars.
- Provided avenues for over 150 researchers to disseminate their research findings and deepen networking for useful collaborative research in food and agricultural policies in Nigeria while building their research analytical skills.
- Provide enlightenments and opportunities in agribusiness at both physical and online platforms. APRNet's website hits (http://aprnetworkng.org) is on the average, 15,000 hits per month.

Reaping the Benefit of the Visiting Scholar Program of the Nigeria Agricultural Policy Project: Training on R Statistical Software

The project continues to see encouraging evidence of the value of investing in few young Nigerians to reach many. One of the three principal objectives of the Policy Project is strengthening Nigerian capacity for greater evidence-based policy processes in agriculture. The focus is on increasing the ability of Nigerian analysts to undertake and broadly disseminate relevant evidence-based policy analysis. To do so, it is essential for researchers to acquire the skills to perform rigorous data analysis. To this end, the project delivered a series of trainings on agricultural data analysis using R statistical software for university lecturers and staff of Ministries of Agriculture in FtF focus states across Nigeria. Who better to conduct this training than the NAPP project scholars! R is an open source (free) programming software used for statistical modelling and analysis. Its expandability allows developers to easily write their own software and distribute it in the form of an add-on package. Its major advantages are that it is free and can be customized.

Scholar Training on R for academics in Feed the Future Focus States

One of such trainings was held at Ibrahim Badamasi Babangida University (IBBU) Lapai. It was a typical illustration of the benefits of NAPP's operational strategy: *"Training one to train others".*

The trainers were: Dr. Charles Olumba, Mrs. Hephzibah Obekpa and Mrs. Balaraba Sule (all three are NAPP scholars). The 25 participants, comprising three females and twenty-two males, were from four universities: IBBU, Lapai, the Federal University of Technology Minna, the Nasarawa State University, Keffi, and the University of Ilorin in Kwara State, all in the North Central zone of Nigeria. The 5-day training was officially opened by the Vice Chancellor, IBBU, Professor Adamu Abu Kasim. In attendance were the State Commissioner for Tertiary Education, Hon. Mohammed Baba Adamu; the Registrar, the Deputy Vice Chancellor and other members of the IBBU management. Each day, the training began with a presentation from a facilitator. This was followed by practical hands-on sessions in which participants utilized the different syntaxes they were introduced to. The training concluded with group presentations of the results of the analysis carried out by the participants using their newly acquired knowledge in R. Appreciating the need for continued interaction between the facilitators and the participants, a WhatsApp group was also formed. The platform is expected to serve as an avenue to discuss participants' challenges and provide further assistance as they explore data analysis with their newly gained competencies in R. The training was rounded up with the presentation of certificates to the participants by the Dean, Faculty of Agriculture IBBU, Prof. A. F. Lawal. A vote of thanks was given by one of the NAPP scholars, Balaraba Sule. She thanked the participants for their enthusiasm and diligence in carrying out all tasks assigned to them and expressed the hope that the training will mark the beginning of many more collaborations between NAPP and all the universities that were represented. Similar trainings were held at Ebonyi State University and Ahmadu Bello University during this quarter.

Training and Mentoring on R Now Extended to State Ministries of Agriculture and Natural Resources in FtF States

The NAPP Scholars have extended training and mentoring on the use of R (a free and open source software for data analysis) to the staff of the Ministry of Agriculture and Natural Resources in Minna, Niger State, during a workshop held from 24-28th of February 2020. The three Scholars trained at Michigan State University (Hephzibah Obekpa, Balaraba Sule and Dr. Charles Olumba) conducted the training of the staff on the use of R software. The software will be used for statistical analysis to support evidenced based work at the Ministry that will contribute positively to the overall policy process in Niger State and Nigeria at large. The training was held in the ministry's conference hall with the Ministry of Livestock and Fisheries permanent secretary, Dr. Wasa Jonathan K., giving the opening remarks. He encouraged participants to leverage the opportunity to build their capacity for analysis with R. Such capacity will be put in use for work in the ministry and for their personal research. For those who would further their education, the knowledge and skills gained will be put to additional use. The pre-evaluation exercise indicated that participants expected to have the ability to use R for their analysis at the end of the training. The permanent secretary assured all present that the training effort would not be wasted. He challenged his staff to put in their best throughout the period of the training. None of the participants had previous exposure to R software. Some had used Excel, SPSS and STATA but the licensing cost posed a challenge to the legal acquisition of these software. Twenty-five participants (21 males and 4 females) from six different ministries, departments and agencies in Niger State were trained. They came from the Ministry of Agriculture and Rural Development, Ministry of Livestock and Fisheries, Niger State Agricultural and Mechanization Development Authority, Fadama, Women Affairs, Planning Commission and Bureau for Statistics. The participants were thrilled and indicated that they would appreciate better a longer training session. The training included introduction to R, basic R structures and commands, managing R packages, data management in R, graphics in R, Regression, correlation and ANOVA amongst others. They were given

assignments that covered modules taught in class, such as graphics and regressions, to work through for 2 weeks after the training as a strategy to encourage experiential learning. A WhatsApp group account to share messages, documents and videos inexpensively was created to further guide and assist participants with challenges as they continue to use R in a mentored mode. The WhatsApp group account is a platform that empowers the trainers to continue mentoring participants as long as they choose to remain in the group. A similar training was also conducted in Ebonyi State during this period.

These stories related to "R" training are further evidence that the NAPP Scholars' Program is an innovative and worthwhile USAID investment. The value of scholars' continued inputs to fill human capacity gaps of many Nigerians will lead to stronger support for the policy process across the country.

Project Scholar uses the "train one to train others approach" to reach over 12,000 other Nigerians on food safety

Food safety is extremely important for food security and there is a dire need for Nigerians to be well informed about the challenge of aflatoxin along the maize value chain in the country. Aflatoxin contamination in maize and maize based products poses a threat to the health of humans and animals in Nigeria. Knowledge about aflatoxins and how to prevent their contamination of maize based products is necessary to prevent Nigerians from consuming bad maize, thus reducing their exposure to the health risks of aflatoxin. One project scholar (a member of the 'aflatoxin along the maize value chain' research team) reached over 12,000 Nigerians in 4 States indirectly through 125 trainees (including extension agents) she trained. Between January 27-28, 2020, Mrs. Toyin Adebowale and her Nigerian Advisor (Prof. Obadina) led a training that took place at the Ministry of Agriculture, Minna, Niger State. The programme designed as trainer of trainers was twofold. First to disseminate information about aflatoxin in maize and to train the participants how to manage maize, from the farm to consumer, with food safety as the major consideration. The second goal of the programme was to ensure that in the immediate future, the participants would be able to disseminate the findings and train others in their communities about aflatoxin and maize management. Commissioner for Agriculture, Hon. Haliru Zakari Jikantoro kicked off the programme with some welcoming remarks. The dissemination and training was facilitated by Mrs. Oluwatoyin Adebowale (NAPP Scholar), Dr. Obadina Adewale, Professor in the Department of Food Science and Technology, Federal University of Agriculture, Abeokuta (FUNAAB) (Mrs. Adebowale's NAPP advisor) and Ms. Itohan Martins, a FUNAAB graduate student who has joined the aflatoxin research team. The 2-day programme of events was attended by 50 participants (40 males and 10 females), who were extension agents and students from all local government areas in Niger State. Dr. Obadina and Mrs. Oluwatoyin gave presentations on "maize management" and "maize fermentation and safety" respectively. This was followed by model training sessions on how to address related challenges in activities all along the maize value chains from production to sale. Participants took turns to practice disseminating the findings to training groups (made up of fellow participants). This ensured that participants actually understood the contents of the presentations while at the same time demonstrating how they were going to disseminate the information to their communities. Strengths and weaknesses of the practice presentations were discussed and remedies for the weaknesses presented. Participants remained engaged all through the events. The trainers were happy with the interactions and pleased with the opportunity to impart knowledge and skills in a lifesaving programme. Facilitators volunteered to join hands with the participants to further disseminate the findings on aflatoxin in maize as they train others in local communities to challenge related challenges. By the end of March, 2020, the 50

participants had trained 6138 in Niger State (a subset of the 12,204 total reached). This story shows how investing in the training and mentoring of young Nigerian scholars not only benefits them but also can benefit larger groups of other Nigerians. It also demonstrates how researchers working with extension workers can effectively pass on important information to Nigerian households and businesses. She conducted a similar two-day training workshop in Ebonyi and Benue states. Together she has trained about 125 community champions and extension agents (during Q1 and Q2 of this year) who have gone on to train over 12000 Nigerians. These training and monitoring activities reflect the impact of the Scholar program's "train one to train others" approach.

Policy Project is slowly but surely changing the environment in academic institutions across Nigeria

As part of the Policy Project Scholars program, The Major professors of the young Nigerian Scholars also come to MSU for a month. During that month, they attend classes at MSU and interact with various MSU faculty. The aim is to share teaching and research experiences across institutions in Nigeria and the USA while creating an opportunity for the professors to see what their scholars are doing and to develop new networks and collaborations. We summarize below some insights from the Visiting Nigerian Faculty Supervisors that demonstrate how their participation in the Scholars program is impacting them and their institutions back at home in Nigeria[6].

Professor Ifeyinwa Achike, University of Nigeria, Nsukka, Enugu State, Nigeria, Department of Agricultural Economics

- I am still using the group mentoring approach I learned about at MSU for my graduate students. There is evidence of uptake of the approach in my department as three of my colleagues have also started using it with five others planning to start next session.
- My NAPP Scholar is using the content (both materials and knowledge) of AFRE 874 (a course taken at MSU) to teach AEC 561 (Methods of social research). She has also put the 'R' application in the course outline of her newly assigned PG course (Computer applications).
- I have begun to implement joint data collection (an easy fall-out from the group mentorship) which was also a take away from the MSU visit. However, the students that will jointly collect data are still touching up their proposals and will soon proceed to field. Another fallout from group mentorship is that, I created a WhatsApp platform with my graduate students, where we share pertinent issues on their research and academic matters. We usually schedule progress report presentations twice in a semester. Here the students present their progress reports for review and comments from me and their peers. I occasionally invite some of my colleagues to attend and chip-in ideas to boost the students' research work. This practice has tremendously assisted my students in their departmental seminar presentations. As a matter of fact, after my visit to MSU and participation as NAPP visiting scholar which enabled the knowledge of this group mentorship, my graduate students are now like family with me.

Professor Bolarin Omonona, University Of Ibadan, Oyo State, Nigeria, Department of Agricultural Economics

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[6] We have tried to keep the words/language used by the professors; only adding text for clarification and flow.

- Most of the funding support for research work that we have done since I came on exchange visit to MSU were based on personal contact or recommendation by colleagues within and outside MSU. For instance, in September 2018, we were recommended to WorldFish to conduct a meso analysis of the fish value chain in Oyo State. This was concluded in December, 2018. In 2019, we were linked with a team in the US to bid on the Fish Innovation Lab grant that we are almost getting funded. Generally, the search for funding opportunities has not been intense as the working environment has remained unfriendly. Many of our staff have gone on leave and their course loads have been redistributed to those of us left behind since no new staff recruitments have been made. Also, administrative activities have increased and this has taken much of my time.
- I have been practicing some of the teaching styles discussed at the weeklong seminar on teaching we attended at Michigan State University during our visit. The use of digital devices to enhance teaching is limited because of the poor state of our infrastructure. Inadequate mains electricity supply limits the use of power point as projectors require standby generators in case of power outage. Cheap service by internet providers on campus have become unreliable.
- I did a meso level analysis of fish value chains in Oyo State with another local researcher in Ibadan through the nomination of Profs. Reardon and Liverpool-Tasie. I also attended the training of enumerators in the aflatoxin study that took place in Ibadan with Prof. Liverpool-Tasie and others from MSU.
- Through an advert sent by Prof. Liverpool-Tasie, Wale Ogunleye (a NAPP scholar is now employed as a Senior Associate in Poverty Innovation Lab; an international organization that specializes in data collection and analysis in development economics.

Professor Godwin Abu, University of Agriculture Makurdi, Benue State, Agricultural Economics
- The African Agricultural Technology Foundation (AATF) desired a consortium of experts to conduct impact evaluations for the projects. I got the TOR and responded as to how the evaluation should be conducted with inputs from the meetings we held at Justin Morill hall, MSU. After rigorous screening of the applicants for the study, I came out tops for Nigeria. I was selected to partner with a Kenyan Firm - African Research and Economic Development Consultants (AFREDEC)
- While at MSU, we had useful interactions with faculty members including Profs. Bob Myers and Vincenzina Caputo on microeconomic theory and experimental economics respectively. The University of Nigeria Nsukka subsequently invited me to examine a PhD candidate whose thesis was on experimental economics. It was so well-conducted the department thereafter sent me 5 MSc theses for examination. I now have a working collaboration with the University of Nigeria Nsukka. I now want to introduce experimental economics at MSc and PhD levels in my home institution.
- While at MSU, I had participated in drawing up a proposal with MSU Professor. Soji Adelaja for the USAID innovation lab for Markets, Risk and Resilience. We are very hopeful that we will get the grant and deepen our collaboration with MSU.

Damisa Maiyaki, Ahmadu Bello University, Zaria, Kaduna State, Agricultural Economics
- When I got back to Nigeria, I tried to link up with 4H Nigeria, a program geared to encourage youth to engage in agriculture. I sent a message through their Facebook page of which there was no reply. By the close of 2017, I was no longer the coordinator of the

adopted village of my research Institute. The adopted village was a platform in which the young ones were encouraged to have interest in Agriculture and or agriculture related activities and services. My successor did not have as much interest in the 4H as I did.

- The creation of long-term linkage with MSU is very much alive in my Department but the drive and vigor to pursue this has slowed down significantly following a change of baton of the headship of the Department. When I visited, I was the Postgraduate Coordinator of my Department and was able to ensure some pushing which a new crop of leadership has been unable to do. My Department is in dire need of partnering with institutions in the outside world for recognition and capacity building and collaborating with your Department is a sure privilege. Sooner or later, I know a move will be made to effect this.

- Aisha Ibrahim, (my NAPP student scholar) was given employment by my University at a sister research institute: The National Agricultural Extension Research Liaison Services (NAERLS). This was because the contribution of MSU to her studies added color to her research and made her research to stand out uniquely. Presently, there is a student in the Department by name Abel Gomina who is being co-supervised by Prof Thomas Reardon of your Department.

- The scholar program has enabled me to supervise and lecture my students properly. For example, one of the areas scholars in my department lack understanding is in the area of research design. It used to be lumped with sampling procedure and as such not well handled. Now, my students treat it as a separate topic in research methodology. Though the Department is yet to take a stand to adopt this method, some of my colleagues, particularly the younger academicians, are already imbibing the method. The exposure has enabled me to also improve student lecturer interaction where we see ourselves as stakeholders and not boss-servant relationship.

- Most of our graduate research is purely academic. As such, they are mostly on shelf research output. My scholar visit opened my eyes to the fact that sometimes we need to tailor our researches to capture the attention of the politicians for funding and out-scaling. Now, their research is being tailored towards the solution of farm problems in farming communities.

First Quarter (October – December 2019)

1. Towards the Outcome of Capacity Building Activities:
In November 2019, the project trained 23 staff of FMARD on the concepts and principles of M&E and participants demonstrated high level of understanding of the topics treated during the training. The project has thus observed exceptional outcome of the training when five of the beneficiaries including Dr. Gabriel Malomo, Onaolapo Omolola Mary, Akan Uteh, Obasi Chinonso, and Emeka Onwuchekwa teamed up to stepdown the M&E training to another set of 27 staff of FMARD. During this time, the FtF NAPP M&E Assistant – Adetunji Fasoranti was present for technical backstopping. The five facilitators are now joining the project M&E team in facilitating M&E training to other targeted beneficiaries across the project focal states which will further sharpen their M&E skills. However, the project has positioned these facilitators to assist in further developing the M&E system of the FMARD, leading to improved performance.

The project also built the capacity of staff of Faculty of Agriculture, Forestry and Wildlife Resources Management, University of Calabar, Cross River State on the concepts of Monitoring and Evaluation. The trainer focused on several aspects on the principles of M&E, especially the development of M&E

plan. Emphasis was on the importance of the M&E plan as a key tool in project management. Within the first quarter of Year 5 of the project, some of the beneficiaries within the institution worked together and developed an M&E plan for the mandatory Students Industrial Work Experience Scheme (SIWES) using the M&E skills they acquired during the M&E training. The M&E plan is expected to be implemented during the next academic session when students of the faculty will be observing the SIWES.

Feedback from our capacity building activities revealed that several beneficiaries have had prior capacity building related activities with many organizations, but many of the beneficiaries confirmed that the NAPP approach to similar capacity building activities showed them better and different ways of doing things. This has led to exceptional improvements in service delivery within their organizations. A typical example is the Agricultural Research Council of Nigeria (ARCN) that the staff benefitted from MEL training. The staff now utilized the skills in developing frameworks for MEL within the National Agricultural Research Institutes and the Federal Colleges of Agriculture. Furthermore, the principles and concepts of MEL taught during MEL trainings are now being used to influence MEL decisions within the ARCN system. This is an improvement over the initial development of MEL plan that focused on only one project to developing a MEL framework for the entire system.

1. **Continuing spillover effects of the NAPP Scholars program: Payoffs from the investment made in Nigerian scholars:**

Upon return to Nigeria, project scholars and their advisors (who also came to MSU) continue to update the project about the lasting and spillover effects of the scholars program on their activities and institutions. During the advisors' visit to MSU, a Nigerian professor expressed a deep appreciation for the group mentoring approach used by MSU faculty for MSU graduate research students. She announced that this was something she was taking back. The professor recently reported that she continues to use the group mentoring approach with her graduate students and that three other colleagues in her department have adopted the approach while five others are planning to do same, next academic session. The same professor reported that she recently began implementing joint data collection (another idea that came from her visit to MSU) as it became an easy fall-out from the group mentorship. She says "*Another fallout from group mentorship is that I created a WhatsApp platform with my graduate students, where we share pertinent issues on their research and academic matters. We usually schedule progress report presentation twice in a semester. Here the students present their progress reports for review and receive comments from me and their peers. I occasionally invite some of my colleagues to chip-in ideas to boost the students' research work. This practice has tremendously assisted my students in their Departmental seminar presentations*". This shows how the scholars' Nigerian advisors (who often have more power and influence in their institutions) can facilitate the introduction of new ideas and research practices to the institutions thus ensuring that the individual investments made by USAID on the scholars can have additional impacts on their institutions; improving the research culture, practice, standard and ultimate value to the Nigerian agricultural policy space.

Upon return home from Michigan State University, one of the NAPP scholars reported that she continues to use content from "Empirical Methods for Field Research in Developing Countries" -a course she took at MSU, to teach a course- "Methods of Social Research" at her home institution. She taught this course to 38 and 42 students in 2018 and 2019 respectively. She also reports that she has incorporated "basic R application" (which she was introduced to, and trained on, as a NAPP scholar) in the outline of a new master's course that has been assigned to her in the current academic

session. This is another example of how NAPP scholars continue to give back; extending USAID's returns on investment, beyond the scholars to their institutions and the research environment around them.