



FEED THE FUTURE

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



FINAL TECHNICAL REPORT

Feed the Future Nigeria Agricultural Policy Project (NAPP)

Program Activity: July 1, 2015 to January 31, 2021

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ACRONYMS

AAEA	Applied and Agricultural Economics Association
AATF	African Agricultural Technology Foundation
ABU	Ahmadu Bello University
ACIOE	Accountability, Commitment, Innovation, Optimistic, Excellence
ADAN	Association of Deans of Agricultural Universities
ADWG	Agriculture Donor Working Group
AEAS	Agricultural Extension and Advisory Services
AERC	African Economic Research Consortium
AFAN	All Farmers Association of Nigeria
AfCFTA	African Continental Free Trade Area
AfDB	African Development Bank
AFRE	Department of Agricultural, Food and Resource Economics
AFREDEC	African Research and Economic Development Consultants
AGRA	Alliance for a Green Revolution in Africa
AIT	African Independent Television
AOR	Agreement Officer's Representative
APP	Agricultural Promotion Policy
APRNet	Agricultural Policy Research Network
ARCN	Agricultural Research Council of Nigeria
ATA	Agricultural Transformation Agenda
BIFAD	Board for International Food and Agricultural Development
CAADP	Comprehensive Africa Agriculture Development Program
CBO	Community-Based Organization
CDAIS	Capacity Development for Agriculture Innovation Systems
CGIAR	Consultative Group for International Agricultural Research
CLA	Collaboration, Learning and Adaptation
DFID	Department for International Development
DPG	Development Partners Group
DPRS	Department of Planning, Research and Statistics
EatSafe	Evidence and Action Towards Safe, Nutritious Food
EBSU	Ebonyi State University, Abakaliki
ERGP	Economic Growth Recovery Plan
EU	European Union
FAO	Food and Agriculture Organization
FCDO	Foreign, Commonwealth & Development Office
FCT	Federal Capital Territory
FDAE	Federal Department of Agricultural Extension
FEC	Federal Executive Council
FGN	Federal Government of Nigeria
FMARD	Federal Ministry of Agriculture and Rural Development
FTF	Feed the Future
FY	Fiscal Year
GFSS	Global Food Security Strategy
GIZ	Gesellschaft für Internationale Zusammenarbeit
IBBU	Ibrahim Badamasi Babangida University

ICT	Information and Communication Technology
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IPs	Implementing Partners
JAAR	Journal of Applied Agricultural Research
KPPG	Key Political Partners Group
MANR	Ministry of Agriculture and Natural Resources
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation & Learning
MSU	Michigan State University
MTNDP	Medium-Term National Development Plans
NAAE	Nigerian Association of Agricultural Economists
NAC	National Advisory Committee
NAERLS	National Agricultural Extension and Research Liaison Services
NAPP	Nigerian Agricultural Policy Project
NARIs	National Agricultural Research Institutes
NASC	National Agricultural Seeds Council
NASS	National Assembly
NGO	Non-Governmental Organization
NSSP	Nigeria Strategy Support Program
OPI	Organizational Performance Index
PCU	Project Coordinating Unit
REE	Research Education, Extension
RIAPA	Rural Investment and Policy Analysis
SERVICOM	Service Compact
SIWES	Students Industrial Work Experience Scheme
TOR	Terms of Reference
TWG	Technical Working Group
UAM	University of Agriculture, Makurdi
UK	United Kingdom
USA	United States of America
USAID	United States Agency for International Development
USG	United States Government
USIP	United States Institute of Peace
WFP	World Food Programme

PREFACE

The Nigerian Agriculture Policy Project (NAPP) was an associate award to the USAID FTF Innovation Lab for Food Security Policy LWA implemented by Michigan State University (MSU) with consortium members International Food Policy Research Institute (IFPRI) and the University of Pretoria. The five-year project ran from July 1, 2015 to January 31, 2021, with a total budget of US\$ 12.5 million. NAPP was implemented by MSU and IFPRI in collaboration with national partners in Nigeria with USAID grant number AID-620-LA-15-00001.

The goal of NAPP was to promote inclusive agricultural productivity growth, improved nutritional outcomes, and enhanced livelihood resilience for men and women through an improved policy enabling environment. NAPP pursued this goal through activities to increase the national capacity of Nigerians to generate and analyze information and to formulate evidence-based policy options for considerations by decision makers and stakeholders, and to improve policy processes that are driven by empirical evidence and based on active dialog among relevant stakeholders.

This Final Technical Report focuses on major contributions and achievements of NAPP. It also highlights challenges and lessons learned from implementing activities towards generating research-based evidence, strengthening capacity, and influencing policies in Nigeria. We hope that the achievements and lessons documented in this Report will enable the USAID Nigeria mission, other USAID-sponsored Innovation Labs and other policy research projects to improve the design and implementation of robust policy research and institutional strengthening programs. This Report, along with FSP Annual Reports, Research Papers, Policy Research Briefs, and Synthesis Reports, will continue to be made available to the general public by MSU. Electronic documents can be accessed and downloaded from <https://www.canr.msu.edu/fsp/countries/nigeria/>.



Figure 1. NAPP research, capacity strengthening, and policy support activities, 2015-2021

(L-R, Community focus group discussions in Kebbi State; NAPP Scholar demonstrating improved farm management methods; Highlighting contribution to donor policy and programming at USAID Nutrition Strategy event in February 2020; NAPP scholars at jointly sponsored event (2017 Nigerian Agricultural Association of Economists (NAAE)).

The achievements highlighted in this Report stem from contributions by many individuals associated with this project. As the Lead Principal Investigator and Chief of Party for NAPP, we express our appreciation and gratitude to our 13 NAPP scholars and their Nigerian universities as well as the over 60 researchers across MSU, IFPRI and Nigerian institutions (including the Federal Ministry of Agriculture and Rural Development, other ministries, departments and agencies at Federal and State level, private sector, Non-Governmental Organization (NGOs) that were affiliated with the project. We also appreciate the continued guidance of our National Advisory Committee (Annex D). The

successful completion and impact of NAPP would not be a reality without the hard work and dedication of all these partners.

On behalf of MSU and IFPRI, we thank the USAID Nigeria Mission for funding this associate award. This report demonstrates the project's significant contributions to supporting the mission's efforts to support Nigeria's journey to self-reliance through improved policy processes driven by empirical evidence and active dialog among decision-makers led by Nigerians. Ultimately, we hope that the impact of the project will continue far into the future via a stronger policy process that improves productivity along food supply chains in Nigeria and promotes a resilient food system that delivers nutritious and safe foods for Nigeria.



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EXECUTIVE SUMMARY

Project Description

The Nigerian Agriculture Policy Project (NAPP) was an associate award to the USAID FTF Innovation Lab for Food Security Policy (the parent award), which was implemented by Michigan State University (MSU) with consortium members International Food Policy Research Institute (IFPRI) and the University of Pretoria. NAPP was implemented by MSU and IFPRI in collaboration with national partners in Nigeria. The project ran from July 1, 2015 to January 31, 2021 with a budget of US\$12.5 million.

The goal of NAPP was to promote inclusive agricultural productivity growth, improved nutritional outcomes, and enhanced livelihood resilience for men and women through an improved policy enabling environment. To achieve this goal, the project had three core project objectives:

1. To strengthen the national capacity for greater evidence-based policy processes in agriculture by increasing the capacity of Nigerian analysts to undertake and make widely available relevant evidence-based policy analysis.
2. To promote and foster informed policy dialog among all stakeholders in the agricultural sector through an inclusive, transparent, and sustainable process at the country level, building blocks for a well-integrated and developed national policy system.
3. To help federal and state governments improve their capacities to plan and implement effective policy analyses and programs, and demand and absorb policy research in their policy process.

NAPP was organized around three key components directly linked to its three objectives:

Component 1: Enhance national agriculture and food security policy capacity

Component 1 was focused on designing and delivering capacity building initiatives to stakeholders that were either demand-driven or identified during project collaboration with stakeholders. At the conceptualization of the NAPP, the project carefully selected its stakeholders as those who could influence and promote improvement in the agricultural sector in Nigeria. NAPP identified the Federal Ministry of Agriculture and Rural Development (FMARD) as a major stakeholder, and selected other key stakeholders including the state ministries of agriculture, agro-input dealers, civil society organizations, non-governmental organizations, academia and policy research networks, and media. NAPP held inception meetings with the stakeholders to understand their strengths, capacity building needs, and the areas of improvement. Activities under this component were categorized into two areas:

1. Capacity building through training courses offered to FMARD, ministry staff in the seven Feed the Future (FTF) states¹ of Benue, Cross-River, Delta, Ebonyi, Kaduna, Kebbi and Niger, academic faculty in Nigerian universities, think tanks and research institutions, Community-Based Organizations (CBO's), NGOs, farmer groups, and the media;

¹ At the conceptualization of NAPP, the seven were the only FTF states (subsequently the list was expanded in 2020 to include four states in northeast Nigeria).

2. Capacity strengthening via the Project scholars Program which brought 13 young Nigerian NAPP Scholars (Masters and PhD students) and their advisors to MSU for courses, research training and support, as well as research network development, combined with long-term mentoring over the life of the project using a Training of Trainers approach.

Component 2: Policy driven collaborative research and analysis

One of the hallmarks of NAPP was the use of collaborative research for both capacity strengthening and for generating evidence to support the policy process. NAPP research was conducted by a team composed of researchers from MSU or IFPRI alongside Nigerian researchers at institutions of higher learning or national research institutes and their graduate students. Research priorities were determined via team consultations with stakeholders and the teams were involved in all research activities from research design, implementation, analysis, and writing to results dissemination.

Research topics included nutrition and food safety, climate change and agricultural resilience, land access and land governance, drivers of public agricultural expenditures, the impacts of agricultural public investments, political economy, commercialization of agricultural production, youth migration, seed variety improvement, irrigation, food safety, and Nigeria's transforming food system. At the tail end of the project, other topics covered were the impacts of COVID-19 on food security, and constraints and opportunities in key value chains.

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

These included activities designed to strengthen the policy process in Nigeria by bridging the gap between “knowledge providers” and “knowledge users”. To achieve this, NAPP extensively worked with stakeholders on evidence generation (via collaborative research and its resulting publications) and also in using research outcomes to recommend effective policies that assisted the Nigeria government to address some of the issues in the agricultural sector and to promote efficiencies and effectiveness of improved service delivery in Nigeria.

The other activities under this component supported FMARD and state governments in the development and review of relevant policies at the Federal and State level. The project supported the policy process and led the development of agricultural policy options at federal and state level, in areas such as food and nutrition security, gender in agriculture, agricultural extension, and state-level agricultural development. Other stakeholders that were instrumental to the successful development of the policy options included the non-governmental organizations, universities, and research institutes. The project provided opportunities for stakeholders and actors in the policy process to share knowledge that contributed to the improved policy processes in the agricultural sector.

In addition to technical research, NAPP scholars developed non-technical communication pieces (including outreach pamphlets, training manuals, and dissemination videos) targeted at extension agents, farmers, processors, and Nigerian households. Many of these oral and written communication pieces have been translated to Nigerian languages. Such dissemination strategies support policy action (ultimately geared to improve the welfare of Nigerian citizens) by directly reaching out to Nigerians with research findings appropriately packaged for their use.

Major accomplishments and outcomes of NAPP

Capacity strengthening in Nigerian institutions: Through its strategic approach of “Trainers of Trainers,” NAPP has contributed to laying the foundation for Nigeria’s Journey to Self-Reliance and supported the emerging resilience of Nigeria’s agricultural economy. NAPP trained over 5,089 beneficiaries from FMARD, state ministries of agriculture, research institutions, media, farmers, and the private sector. These trainings covered important issues such as (i) data collection and analysis for policy, (ii) understanding Nigeria’s agricultural policies, (iii) Applying value chain concepts in Nigeria’s food systems transformation, (iv) Policy Communications (v) Economy wide Modelling and Macroeconomic Adjustment.

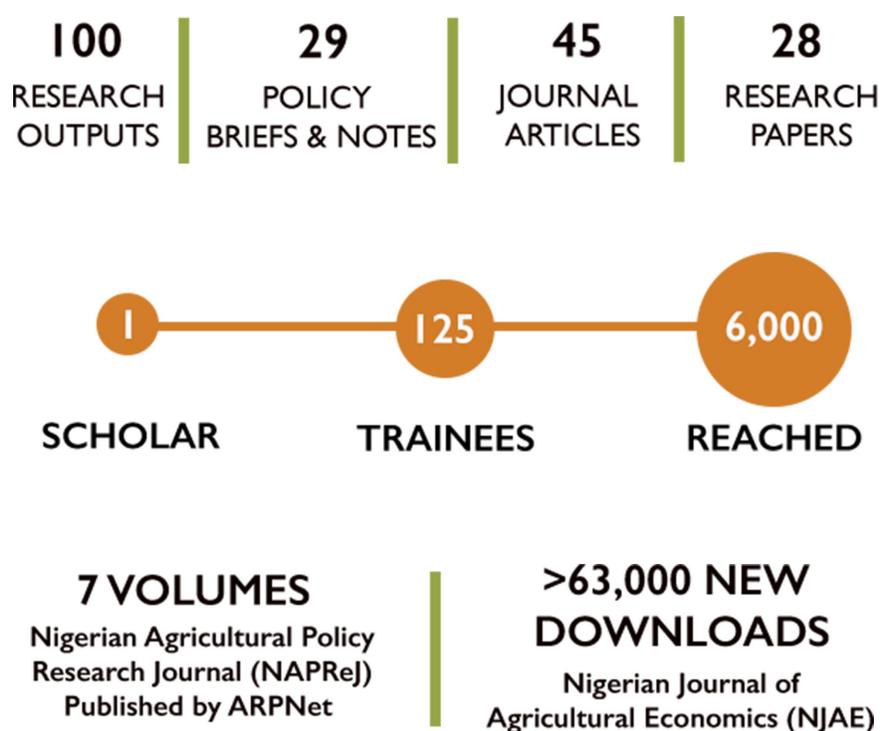


Figure 2. Selected NAPP Achievements, 2015-2021

Collaborative research on policy issues: Through collaborative research with partners across research institutions and government agencies, the project has produced over 100 publicly available research outputs including 28 research papers, 29 policy briefs and policy notes, and 45 journal articles. These research outputs have been instrumental for conversations among stakeholders (including government, private sector and civil society) on important issues such as food safety, food and nutrition security, agricultural productivity (seed variety improvement), Nigeria’s food system transformation, macroeconomic issues, political economy of agricultural policy-making as well as climate change and resilience.

Research Dissemination: NAPP reached over 16,385 Nigerians in the eight focus states and Abuja through research dissemination activities. In addition to technical research papers and Policy Briefs, NAPP has leveraged on non-technical communication pieces targeted at extension agents, farmers, processors and Nigerian households. These communication pieces have been translated into Nigerian languages (including Igbo, Hausa, Tiv and Yoruba). Some of them have also been prepared in oral form to disseminate research findings in a culturally relevant manner. Such dissemination supports policy action (ultimately geared to improve the welfare of Nigerian citizens) by directly reaching out to Nigerians with research findings appropriately packaged for their direct use. NAPP trained 41 poultry farmers on appropriate bookkeeping practices and over 6,000 households on food safety.

Contributing to and influencing the policy process: NAPP has contributed directly to the policy process in Nigeria on diverse issues including the following: (1) On agricultural research and mechanization, the FMARD minister and senior directors used NAPP research findings to consider future policy directions; (2) On food and nutrition security, NAPP research findings recommending nutrition-sensitive agriculture were instrumental in FMARD establishing a new department for nutrition in 2020, and for which NAPP supported capacity development of the new department; (3) Gender policy in agriculture, for which NAPP research informed the development of the policy and NAPP served on the advisory committee for the new policy launched in 2020; (4) In extension policy, FMARD adopted the proposed private-sector-led extension policy recommended by NAPP research; (5) State agricultural policies, for which NAPP provided technical support to four FtF states (Cross River, Delta, Ebonyi, and Kebbi) to revise and develop their policies; and (6) Support to the development of a climate change action plan in Ebonyi State.

Capacity strengthening and enhanced impact of NAPP Scholars: NAPP brought 13 young Nigerian scholars (Masters and PhD students) and their advisors to MSU for courses, research training and skills-enhancing support combined with long term mentoring. Mentoring started in Nigeria after scholars had been selected and before they came to MSU. It continued even after the scholars completed their tenure at MSU and returned to Nigeria. The Project scholars produced over 30 publicly available research publications including working papers (4), policy briefs (21) and peer reviewed journal articles (7). Additionally, they produced 60 non-technical communication pieces including program highlights (52), outreach pamphlets (6), Training Manuals (1) and a Dissemination Video (1). Project scholars, on returning home to Nigeria trained over 190 people on data collection and analysis and there is increasing demand for these trainings across the country. All these activities reflect the FtF NAPP's "train one to train others" approach that has supported conversations among stakeholders to discuss, advocate for and develop policies to promote food security and agricultural productivity in the country. One scholar reached over 6,000 Nigerians in 4 FtF focus States indirectly through 125 trainees (including extension agents) she trained. NAPP scholar supervisors who expanded their research network and skills through the program have become more enthusiastic in supporting younger colleagues to innovate at their home institutions, using the gains of their NAPP experience. This is slowly changing the research and training culture at the home institutions.

Capacity strengthening and enhanced impact of Nigerian policy research networks: NAPP worked closely with Nigerian research networks and associations to strengthen their capacity and expand their recognition in the agricultural policy space. The project worked closely with the Agricultural Policy Research Network (APRNet) to promote a 'think tank culture' in Nigeria. APRNet's strategy is to foster knowledge-sharing and evidence-based communication, dialog and networking between producers and users of agricultural research. Its 130-person membership includes agricultural policy researchers, technocrats, policy officials, development practitioners, and the media. Each year, the network convenes researchers, policymakers, and the media to discuss pertinent issues.

The 2019 event featured discussions with legislators from the National Assembly (NASS) engaging with Nigerian policy analysts on Nigeria's preparedness for engaging with the Africa Continental Free Trade Agreement. The network publishes the Nigerian Agricultural Policy Research Journal (now at volume 7) and hosts a network website. The project has supported the journals with both MSU and IFPRI researchers serving on the journal's editorial board.

NAPP also worked with the Nigerian Association of Agricultural Economists (NAAE) to organize capacity strengthening activities, typically geared at young and mid-career scholars. The project supported Nigerian research networks to get international recognition. In particular, the project supported the online publication of the Nigerian Journal of Agricultural Economics (Vol 2 (2011) – Volume 8 (2018)). Just between October 2018 and November 2019 these articles were downloaded over thirty-eight thousand (38,481) times.

Lessons, Challenges, and Opportunities

Several key lessons emanated from NAPP. First is the need for better coordination between research and policy conversations in Nigeria to improve policy influence. Second, FtF NAPP has learned that training must be paired with mentoring to sustainably strengthen capacity. The project has learned that intensive but strategic investments in a few Nigerian scholars can have an exponential impact on other Nigerians and subsequently on institutions and the research culture.

While the FtF NAPP scholars program has demonstrated the potential to reach thousands of Nigerians through investing deeply in the training and mentoring of a few, the project has also learned that there is a need to ensure that those trained return to an institutional environment that values and supports their application of the newly acquired skills and the sharing of new knowledge. This requires an institutional focus on capacity building, to ensure that young Nigerian leaders with new knowledge and state-of-the-art skills have the institutional support (in terms of remuneration and facilities) they need to apply their knowledge and skills in a sustained manner and expand the effect of their own training on their institutions' personnel.

Cost effectiveness was critical in the programming of project activities. To complement the delivery of project activities, the project, funded primarily from US Government funds, with US-based Implementing Partners (IPs), MSU and IFPRI, ensured cost-effectiveness in implementation, by purposely leveraging on other resources from the UK Department for International Development (DFID), the Bill and Melinda Gates Foundation, the CGIAR Program on Policies, Institutions, and Markets (PIM) and WorldFish.

Conclusion and Outlook

NAPP has supported Nigeria's Journey to Self-Reliance in agricultural policy development and implementation. Through NAPP, Nigeria's agricultural policy process now has access to a large body of analytical evidence, an enhanced capacity to generate data and conduct research, and stronger networks for policy development. To sustain these achievements, and to address new challenges to Nigeria's food system, the built capacity now needs to be consolidated at the institutional level through more repeated learning-by-doing and applied more explicitly to policy formulation in line with the lessons learned from NAPP.

The medium-term impacts arising from COVID-19 for Nigeria's agricultural development make it more important than ever to strengthen agricultural policymaking in Nigeria, based on strong empirical information and sound understanding of the country's food systems. Research findings need

to be updated, and skills need to be maintained, as crucial inputs to ensure effective influence on policy under changing circumstances. NAPP stakeholders and the IPs have discussed existing and new needs and demands for activities to strengthen the commitment and ability of stakeholders across the agriculture sector to formulate, implement, and monitor policies that foster robust and inclusive growth. These discussions have resulted in a set of priority topics to be implemented under a follow-on **Nigeria Agriculture Policy Activity**, to be implemented by IFPRI and MSU. The achievements and lessons learned from NAPP implementation will serve as useful guides for building on the achievements to guide Nigeria's Journey to Self-Reliance with institutional capacity strengthening, evidence-based research, and policy influence. This will help to develop a more productive agricultural sector, to enhance diet quality and food security, and to build better livelihoods for men, women, and children in Nigeria.

INTRODUCTION

This report summarizes the main accomplishments, outcomes, challenges, and lessons learned throughout the implementation of the USAID/Nigeria funded FTF Nigeria Agricultural Policy Project (NAPP). NAPP was an associate award to the USAID FTF Innovation Lab for Food Security Policy (the parent award), which was implemented by Michigan State University (MSU) with consortium members International Food Policy Research Institute (IFPRI) and the University of Pretoria. NAPP was implemented by MSU and IFPRI in collaboration with national partners in Nigeria. The project ran from July 1, 2015 to January 31, 2021 with a budget of US\$ 12.5 million.

The report is structured as follows. The rest of this Introduction (Section 1) provides the background to the development of the project, NAPP's objectives, components, geographic scope, implementation arrangements, and timeline. This section is most informative for a reader who is relatively less familiar with NAPP. Section 2 focuses on the achievements and outcomes of NAPP, and is the section that we believe, will be of most interest to most NAPP partners. Section 3 identifies the key lessons learned, challenges, and opportunities during NAPP implementation. Section 4 delves into details of some of the activities carried out by NAPP under each component, and describes the monitoring and evaluation of the project. Section 5 concludes the report.

Background

USAID's FTF activities in Nigeria facilitate the attainment of the goals under the agenda for agriculture expressed by the Federal Government of Nigeria (FGN). Strategies to achieve these goals have been clearly identified. In order to achieve the outcomes outlined in these strategies, the need arose for the government, Nigerian institutions, and other key stakeholders in the policy process to strengthen information and knowledge management systems, identify and fill key knowledge gaps, strengthen strategic planning through promoting participation, and build networks. Since the introduction of the Agricultural Transformation Agenda (ATA) in 2010/2011 (continuing under the Agricultural Promotion Policy (APP), there has been increased demand from FMARD) and its stakeholders for greater policy research and capacity training as Nigeria seeks to accelerate its agricultural transformation. NAPP was designed to address this need for policy research and capacity building, and work with various stakeholders to ensure that Nigerian institutions are equipped to respond effectively and in a timely manner to the increasing capacity, knowledge and information needs of government (at the Federal and State level) and other stakeholders in the agriculture sector.

NAPP's strategy was built around a theory of change to transform the agricultural sector through the strengthening of the national capacity for evidence-based policy processes in agriculture. Figure 1 presents a simple schema on this mechanism of change. The actors, inputs, and process in Figure 1 illustrate the NAPP strategy to enhance the national capacity of evidence-based policy processes for transforming and modernizing the agricultural sector in Nigeria. The program activities under NAPP were designed to meet three integrated objectives outlined in the next sub-section.

NAPP goals and objectives

In spite of Nigeria's considerable human capital potential, the Federal and State Governments have continually faced numerous challenges in achieving their stated objectives. These challenges include insufficient knowledge and capacity to design and carry through effective policies and institutional reforms that can create a desirable and enabling environment to transform and modernize the agricultural sector. There remains serious knowledge generation and institutional capacity gaps for providing scientific and analytical evidence for policy makers in a timely and credible fashion.

Actors	Input	Activities/Process	Output	Intermediate Outcomes	Longer term outcomes	Impact
<ul style="list-style-type: none"> Michigan State University (MSU) International Food Policy Research Institute (IFPRI) Ministry of Agriculture Nigerian Universities Nigerian partners including research and policy networks (e.g. Nigerian Ag economist association, Nigerian Ag policy research network) 	Strengthening Links between stakeholders: providers of information and users of information	Working with existing Nigerian stakeholder networks and programs (of policy networks and researchers) to increase dialog between stakeholders in the policy process	Various roundtable and stakeholder meetings and workshops on agricultural policy. These will involve Nigerian research networks like the Ag Research Council of Nigeria, Nigeria Ag Policy Research Network, Staff of the FMARD and Nigerian Ag Policy researchers	Improved dialog between the key actors in the policy making process	Increased demand for evidence based policy research generated by Nigerian researchers	Transformed agricultural sector in Nigeria
		Ongoing and strategic training for staff of the FMARD	Articulated demand for capacity building in the Ministry of Agriculture	Improved quality of research and consequent improved ability to guide the policy making process		
		Improving national capacity to generate evidence based policy recommendation through collaborative research conducted by teams purposefully constituted to build capacity with relevant key actors in the Ag policy system in a sustainable manner	Increased participation of Nigerian researchers and non research actors in the policy analysis process; particularly in Ag policy related activities and programs nationwide. Attention paid to gender of participants	Improvement in the reputation of research conducted by Nigerians due to increased international exposure of Nigerian researchers		
	Training <ul style="list-style-type: none"> Local & relevant Access to international Best practices 	Including gender specific issues in the formulation of research questions, the conduct of research activities, all training and in the dialog process	Several Nigerian Masters and PhD students trained on the most current methods of research design and policy analysis.	Improved image and quality of graduate thesis through the feedback and involvement of international experts provided through the NAFSP program for participating Nigerian graduate students.	Increased national capacity to generate and analyze information, and to formulate evidence-based policy options for consideration by decision makers and Stakeholders	Significantly improved role of Agriculture in Economic Development in Nigeria
	Research: <ul style="list-style-type: none"> Local & relevant Access to international Best practices 	Increased interaction between internationally renowned researchers and the next generation of Nigerian researchers through workshops and conferences	Empirical evidence (papers) on the gendered dimension of various Ag and Ag policy related issues through research conducted with Nigerian researchers	Improved policy processes driven by strong empirical evidence and active dialogue among relevant stakeholders.		
			Several Nigerian Masters and PhD students receiving feedback on research from internationally renowned researchers Attention paid to gender of students and Nigerian researchers			

Figure 3. Nigeria Agricultural Policy Project (NAPP) Mechanism of Change

NAPP was designed to respond to the recognized need for improved national capacity to conduct policy analysis and research to fill key knowledge gaps. Nigerian agriculture policymaking has evolved and capacity to make and implement policy is improving with time. However, several shortfalls in human and institutional capacity remain and have the potential to undermine the efforts of the ministry in implementing its policies and programs. In response to these lacks, NAPP was designed and implemented to support the FGN's efforts to transform its agricultural sector in order to increase rural incomes and reduce poverty².

Broadly, the goal of the project was to promote inclusive agricultural productivity growth, improved nutritional outcomes, and enhanced livelihood resilience for men and women through an improved policy enabling environment. This goal is based on the premise that successful implementation of any government policy requires credible evidence in monitoring progress and in revising approaches as priorities shift with changing policy concerns on new emerging issues. This also requires a demand for such research (by policy makers) to inform the national policy process and to improve the design, implementation, monitoring, and evaluation of the policies.

This broad goal is crystalized in the project's three-pronged but interconnected principal objectives:

- To strengthen the national capacity for greater evidence-based policy processes in agriculture by increasing the capacity of Nigerian analysts to undertake and make widely available relevant evidence-based policy analysis.
- To promote and foster informed policy dialog among all stakeholders in the agricultural sector through an inclusive, transparent, and sustainable process at the country level, building blocks for a well-integrated and developed national policy system.
- To help federal and state governments improve their capacities to plan and implement effective policy analyses and programs, and demand and absorb policy research in their policy process.

Below is a brief description of each of the project components in line with the specific objective of the project.

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

The project took a robust approach to enhance skills, training, and institutional capacities for meeting the demands for policy analysis by FMARD and the national food security and agricultural policy process. The project organized and instituted a direct training collaboration between researchers at MSU and IFPRI with graduate student researchers and their supervisors at Nigerian Universities. There were periodic training workshops on policy analysis methods and tools to reach a broader set of promising graduate students and young research professionals. To promote the visibility of the policy research and analysis being undertaken, periodic conferences and stakeholder workshops were held during the five years of the project. In addition, the project implemented demand-driven capacity

² NAPP was funded by the U.S. Government's FTF Initiative which is supporting country driven approaches to address the root causes of hunger and poverty and in forging long-term solutions to chronic food insecurity and under-nutrition.

building activities for various stakeholders across the academia, ministries of agriculture, farmer groups, media, and the private sector actors at both national and sub-national levels.

Component 2: Policy Driven Collaborative Research and Analysis

The policy driven collaborative research and analysis was intended to directly support the knowledge needs of the policy process. Research teams composed of researchers from IFPRI, MSU, and Nigerian research and academic institutions were built to strengthen local capacities and to dialog by undertaking policy research and analysis. Priorities for the research topics were determined in consultation with FMARD, development partners, and other key stakeholders. In addition, the project had a strong analytical component that was more focused on demand driven and shorter-term policy analyses that originated from requests of FMARD and other key stakeholders. The project also actively engaged and collaborated closely with policy analysts at FMARD and other government institutions charged with informing the policy process.

Research topics included nutrition and food safety, climate change and agricultural resilience, land access and land governance, drivers of public agricultural expenditures, the impacts of agricultural public investments, political economy, commercialization of agricultural production, youth migration, seed variety improvement, irrigation, food safety, and Nigeria's transforming food system. At the tail end of the project, other topics covered were the impacts of COVID-19 on food security, and constraints and opportunities in key value chains.

Component 3: Strengthening Evidence-based Policy Process and Promoting Impact

This component ensured that the project addressed policy impact through increased and targeted policy communications. Strategies included inter alia: directly contributing to the donor-government policy dialog on agricultural policy; launching a policy brief series for the project to serve as an outlet for early results of ongoing research, policy analysis, and outcomes from roundtable discussions and/or policy dialogs sponsored by the project; and promoting a "think tank" culture within the agricultural policy process through organizing various seminars and events targeted at all the actors in the process. The overall aim was to strengthen the visibility and credibility of local research networks.

Capacity building (which underlies the project objectives) took a multi-pronged approach. In addition to direct training through demand-driven courses provided to stakeholders (largely government and Nigerian researchers), the project's approach to conducting research was designed to answer questions of relevance to policy makers in a way that built the capacity of Nigerian researchers in a sustainable manner. Furthermore, the dissemination of research results was organized to stimulate more dialog among stakeholders.

Over the five years, the project trained 5,300 individuals, representing 94 per cent achievement over its target. In addition, the project supported 13 Nigerian graduate students to enroll and receive formal training at Michigan State University. The students took technical courses including econometrics, research design and statistics and also received guidance and supervision on their research projects started in Nigerian universities. The project also engaged in policy driven collaborative research with publication of 92 high quality research papers which represents 167 percent over its targets. The research topics were identified in consultation with FMARD and other key stakeholders and each team on the project was purposefully composed to encourage knowledge transfer and capacity building, particularly for young Nigerian researchers.

In recognition of the importance of serving project beneficiaries and stakeholders at the federal and state levels in Nigeria’s decentralized governance system, the project made significant efforts to engage with stakeholders in the states. The approach was to reach out to and work with various states (depending on interest) to identify partners. Attention was directed at researchers employed by State Funded Tertiary Institutions and Analysts of the State Ministries to work with Researchers at MSU or IFPRI on the relevant policy focus areas identified by each State. Through this approach, NAPP enhanced the capacity of State Ministry Policy Analysts and Nigerian Researchers.

The project engaged with several stakeholders including policy makers, academia, private sector, NGOs, CBOs and Media with excellent work relationships that contributed to the achievement of the project objectives. Members of the project teams also met with senior management (Honorable Commissioners, Permanent Secretaries and Directors {Planning, Research and Statistics; Agricultural Services; Technical Services, Extension Services} of State Ministries of Agriculture in 14 of the 36 States of the Federation across five geopolitical zones.

Geographic Focus

NAPP activities were concentrated in seven USAID FTF focus states (Benue, Cross-River, Delta, Ebonyi, Kaduna, Kebbi and Niger)³. There were also approved project activities in Oyo State and the Federal Capital Territory (FCT), Abuja. (all highlighted in Figure 4). In Oyo State and the FCT NAPP worked mainly with academia and policy makers.

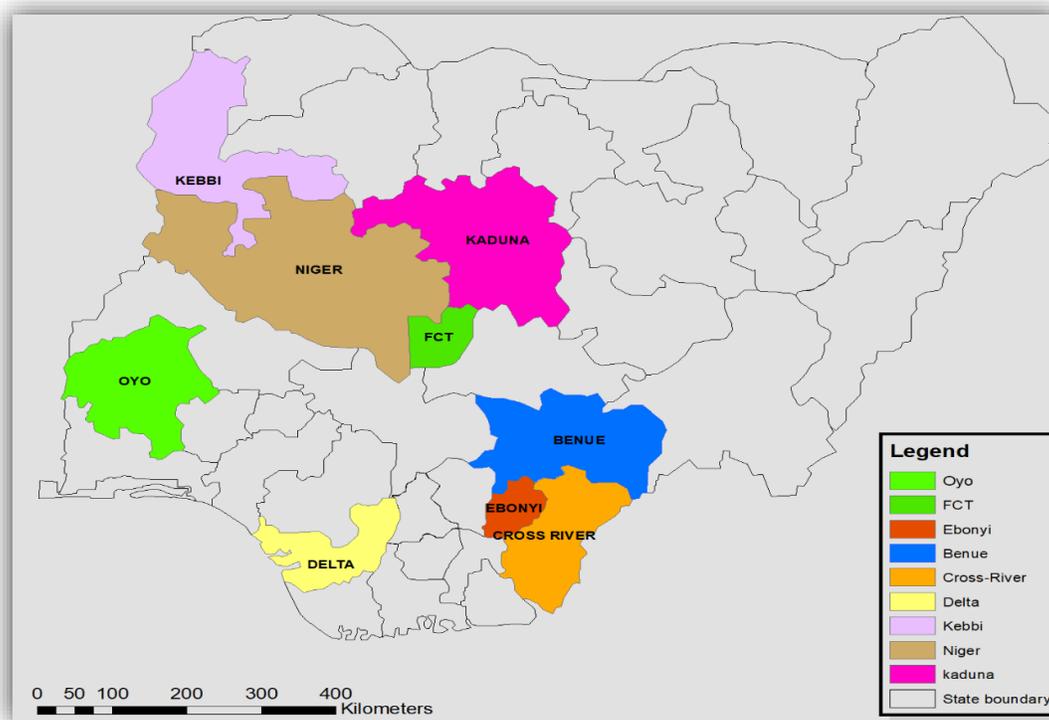


Figure 4. Map of NAPP activity locations in Nigeria

³ At the conceptualization of NAPP, the seven were the only FTF states (subsequently the list was expanded in 2020 to include four states in northeast Nigeria).

Project implementation and timeline

The leads for the project were the MSU Principal Investigator and the IFPRI Chief of Party. The two leads were supported by a vast array of research and program staff from both implementing institutions in collaboration with national partners in Nigeria. In order to facilitate further the involvement of key national stakeholders in the decision-making process as well as the implementation process for NAPP, a NAPP National Advisory Committee (NAC) was created during the first year of the project (in line with the NAPP revised proposal submitted to USAID-Nigeria on April 29, 2015). The NAC consists of representatives from local academia, FMARD, the policymaking community, think tanks, the farmers union, and the civil society (among others), with a significant number of women as members. The NAC met formally at least once a year throughout the life of the project, reviewed plans and progress of various aspects of the NAPP and provided further advice and guidance appropriately.

The project was initially planned to run from July 1, 2015 to June 30, 2020. However, on March 17, 2020, the project submitted a request for a no-cost extension until December 31, 2020 to allow for the completion and documentation of planned activities, as well as to explore and develop effective mechanisms to meet new demands through a future follow-on activity. This became necessary since stakeholders in Nigeria had identified more key issues in agricultural policy formulation, implementation, and evaluation that require evidence-based analysis and capacity building to support Nigeria's path to self-reliance. The request for a no-cost extension was approved by USAID on 29 April 2020. Furthermore, the project received an unfunded extension to the Cooperative Agreement from USAID enabling the project to end on January 31, 2021.

Key Project Accomplishments and Outcomes

Through its strategic approach, the Nigeria Agricultural Policy Project has contributed to laying the



Figure 5. (L) Hiro Takeshima presents research findings on agricultural research and mechanization. (R) The Honourable Minister of Agriculture and Rural Development, Chief Adu Ogburn, meets with Hiro Takeshima to receive further feedback..... Feb 2019.

foundation for Nigeria's Journey to Self-Reliance and supported the emerging resilience of Nigeria's agricultural economy. These have been accomplished in several ways including:

(a) Contributing to the policy process through research and communications:

NAPP contributed directly to the policy process in Nigeria on diverse issues including (1) agricultural research and mechanization, for which the FMARD minister and senior directors used NAPP research findings to consider future policy directions; (2) food and nutrition security, for which NAPP research findings recommending nutrition-sensitive agriculture were instrumental in FMARD establishing a new department for nutrition in 2020, and for which NAPP supported capacity development of the new department; (3) Gender policy in agriculture, for which NAPP research informed the development of the policy and NAPP served on the advisory committee for the new policy launched in 2020; (4) Extension policy, for which FMARD adopted the proposed private-sector-led extension policy recommended by NAPP research outputs; (5) State agricultural policies, for which NAPP provided technical support to four FtF states (Cross River, Delta, Ebonyi, and Kebbi) as they revised and developed their policies; and (6) Support to the development of a climate change action plan and policy document in one of the USAID focus state. The task was led by a NAPP collaborator the project worked with on climate issues over the last 5 years. The process and document were supported with evidence from research conducted by a NAPP collaborative research team on climate change.



Figure 7. NAPP climate change research team continually worked with Dr. Robert Onyeneke of AE-FUNAI (Right in the picture above) and then partnered with the Ebonyi State government {led by Dr. Mrs. Uju- the Senior Special Assistant to the Governor of Ebonyi State



Figure 6. Kwaw Andam presenting state-level extension research findings at a national workshop on revitalizing agricultural extension organized by NAPP and partners, December 2020. FMARD represented by the Director, FDAE (middle), December 2 & 3, 2020

(b) Gender mainstreaming and inclusion in agricultural policy processes:

The project supported the policy processes of FMARD through provision of technical expertise to the development of the National Gender Policy on Agriculture (NGPA) document. The project’s engagements with the Gender Unit of FMARD necessitated further support for dissemination and domestication of the policy document at the state level.



“...the policy would promote and ensure the adoption of gender-sensitive and responsive approaches towards engendering plans and programmes in such a way that men and women have equal access to and control of resources”
.....The Honourable Minister of Agriculture and Rural Development during the launch of the NGPA, October 2019



Kwaw Andam giving a goodwill message on behalf of NAPP during the launch of the NGPA, October 2019

Figure 8. Various NGPA launch activities

(c) Strengthening the capacity of stakeholders through formal training:

NAPP trained over 5,300 beneficiaries from the FMARD, state ministries of agriculture, research institutions, media, farmers, and the private sector. In addition, the project continued to mentor several of the trained beneficiaries for sustainability of the successes achieved. These trainings covered important issues such as (i) data collection and analysis for policy, (ii) understanding Nigeria’s agricultural policies, (iii) Applying value chain concepts in Nigeria’s food systems transformation, (iv) Policy Communications and Policy Brief Writing, (v) Monitoring, Evaluation and Learning, (vi) Organizational performance index (OPI) (vii) Economy wide Modelling and Macroeconomic Adjustment, and (viii) Project (grant) proposal writing. As part of the project’s capacity strengthening approach, the project not only trained the Directors of Planning, Research and Statistics and Directors of planning, monitoring and evaluation (M&E) of each state on how to analyze and present data related to the state priority crops but mentored them in the production of state policy notes.



Dr. Malomo of ARCEN trained under NAPP facilitating MEL training session for staff of the Niger State MANR, September 2019



Dr. Suresh Babu during training on Gap analysis for state-level extension services delivery in CR state, June 2019



Director, PCU (centre) leading group work during MEL training for FMARD M&E team in Abuja, August 2019



Hyacinth Edeb facilitating a training session on STATA for staff members of EBSU & AE-FUNAI, in Ebonyi State, July 2017



Amina Bashir conducting training on Group dynamics to farmer groups in Niger State, September 2019



Elisabeth Douglas facilitating a Policy Communications training session for ARCEN staff in Abuja, February 2018

Figure 9. Various stages of the training process

(d) Strengthening capacity through NAPP scholars program

The Project scholars also supported the NAPP stakeholder training. After being trained and mentored on the use of a free and open-source data analysis software, 7 NAPP scholars trained over 190 faculty, students and staff at various Nigerian Universities and government agencies.



Figure 10. An example of a nontechnical communication piece based on rigorous scientific research prepared for maize processors and households

The NAPP scholars' program has been highlighted as a big success. Through the scholars' program, NAPP was able to demonstrate that intensive but strategic investments in a few Nigerian scholars can have an exponential impact on other Nigerians. This impact can be summarized in four primary ways:

First, with support, young Nigerian scholars can produce high quality relevant research.



Figure 12. NAPP scholar training extension workers and community representatives on food safety practices



Figure 13. NAPP scholar's trainees extending their knowledge to their own communities.

Second, with encouragement, research can be translated into appropriate formats relevant to diverse stakeholders in the research process. In addition to technical and research outputs, scholars developed over 60 non-technical communication pieces including program highlights (52), outreach pamphlets (6), Training Manuals (1) and a Dissemination Video (1) targeted at extension agents, farmers, processors and Nigerian households. Many of these oral and written communication pieces have been translated to Nigerian languages. Such dissemination supports policy action (ultimately geared to improve the welfare of Nigerian citizens) by directly reaching out to Nigerians with research findings appropriately packaged for their use.

Third, training supplemented with mentoring is necessary for sustainable capacity strengthening and generates spillover effects. A subset of the 13 NAPP scholars trained over 1,200 people on matters related to data collection and analysis. Between 2019-2020 alone, scholars returning home to Nigeria trained over 190 people on the use of a free cutting-edge statistical software called "R" and there is increasing demand for these trainings across the country. NAPP scholars have introduced content from classes into their courses at home and are supporting other faculty and students in their home institutions using skills acquired through the NAPP experience. Fourth, the NAPP scholars program demonstrated that the "train one to train others" approach is not only useful for training the next generation of scholars but can be used to effectively disseminate findings from rigorous scientific research to stakeholders (including Nigerian households) in a way that is appropriate for them. One scholar and her advisor reached over 6,000 Nigerians in four FtF focus States indirectly through 125 trainees (including extension agents) she trained. The NAPP scholars program also demonstrated that

The project scholars produced over 30 publicly available research publications including research papers (4), policy briefs (21) and peer reviewed journal articles (7).

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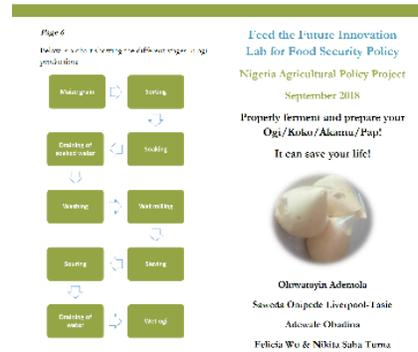


Figure 11. NAPP scholar developed a guide for fertilizer use by maize farmer given their soil characteristics



Figure 14. NAPP scholars engaged in data analysis training for faculty at various institutions of higher learning

capacity strengthening requires an institutional approach and engaging with young scholars as well as more senior faculty can help in creating a more conducive environment for the dissemination of new knowledge and approaches.

The Nigerian supervisors who expanded their research network and skills through the Scholars program have become more enthusiastic in supporting younger colleagues to innovate at their home institutions, building on their NAPP experience. This leveraged approach built on the rising skills and enthusiasm of young Nigeria scholars is slowly changing the research and training culture at the home institutions.

... After my visit to MSU and participation as NAPP visiting scholar which enabled the knowledge of group mentorship I have adopted it. I created a Whats.App 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 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 student in their Departmental seminar presentations... NAPP scholar Advisor in Nigeria.

(e) Evidence generation via collaborative research:

Through collaborative research with partners across research institutions and government agencies, the project produced over 100 publicly available research outputs including 28 research papers, 29 policy briefs & policy notes and 45 journal articles. These research outputs have been instrumental for conversations among stakeholders on issues such as food safety, food and nutrition security, agricultural productivity (seed variety improvement), Nigeria’s food system transformation, macroeconomic issues, political economy of agricultural policy-making as well as climate change and resilience.

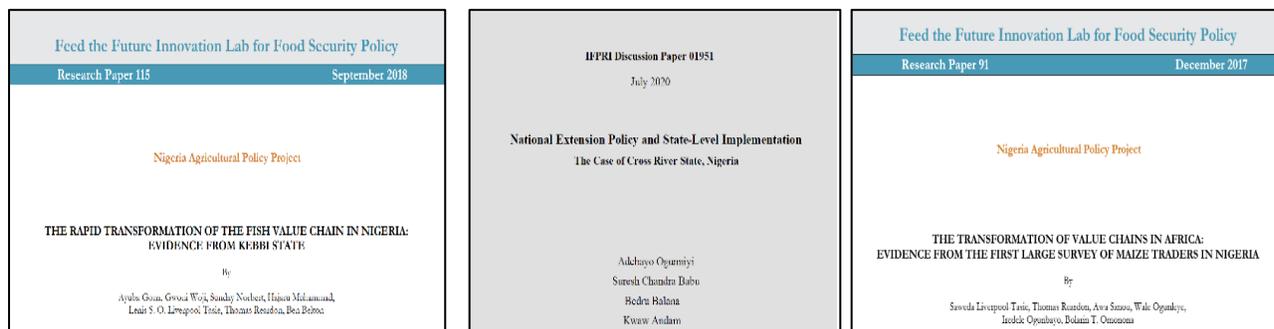


Figure 15. Research outputs from the project

Strengthening research networks and associations:

The project worked closely with Nigerian research networks and associations to strengthen their capacity and expand their recognition in the agricultural policy space. For example, NAPP worked closely with APRNet to promote a ‘think tank culture’ in Nigeria. APRNet’s strategy is to foster knowledge-sharing and evidence-based communication, dialog and networking between producers and users of agricultural research. Its 130-person membership includes agricultural policy researchers,

technocrats, policy officials, development practitioners, and the media. Each year, the network convenes researchers, policymakers, and the media to discuss pertinent issues. The 2019 event featured discussions with legislators from the NASS engaging with Nigerian policy analysts on Nigeria's preparedness for engaging with the Africa Continental Free Trade Agreement (AfCFTA). The network publishes the Nigerian Agricultural Policy Research Journal (now at volume 7) and hosts its own website (<https://www.aprnetworkng.org/>).

NAPP has supported the journal with MSU and IFPRI researchers serving on the journal's editorial board.

NAPP also worked with the NAAE to organize capacity strengthening activities, typically geared at young and mid-career scholars. The project assisted Nigerian research networks to get international recognition and supported the online publication of the Nigerian Journal of Agricultural Economics (Vol 2 (2011) – Volume 8 (2018)). Just between October 2018 and November 2019 these articles were downloaded over thirty-eight thousand (38,481) times. In 2019 a NAPP scholar worked with the editorial board to upload the 2019 journal and from 2020, uploading of the journal has been accomplished by the board.



Figure 16. Dr. Oyinkan Tasie, Dr. Uma Lele and NAPP scholars with Project Supported Participants at NAAE conference in 2019

NAPP organized several capacity strengthening activities with NAAE. These included sessions on research processes and methods organized during the association's annual conference. NAPP and NAAE jointly trained and mentored three young Nigerian scholars on article writing. This NAPP activity saw two of their three papers published in the 2020 Nigerian Journal of Agricultural Economics (NJAE) and the third in the African Journal of Agricultural Economics (AfJARE) in March 2020.



Figure 17. Dr. Oyinkan Tasie presents at the NAPP Conference

(f) Effective dissemination of research findings:

The project disseminated the findings of its research publications to 17, 195 participants who were mainly academia, staff of Federal and State Ministry of Agriculture, Think Tank, NGOs and CBOs. Although the plan was to reach out to 4,356 participants at the end of the project. The overwhelming achievement at 394 percent was largely due to the change from in-person dissemination to webinars occasioned by the COVID-19 pandemic. The webinar events allowed for larger participation particularly where events addressed contemporary issues such as the COVID-19 pandemic and its associated impacts.

(e) Support for the Development of State Policy Documents:

The Project facilitated and presented Policy Notes on Rice for Kebbi, Cross River, Ebonyi and Niger States to their state governments. These documents are incorporated in the work plans to implement activities on rice production in Kebbi, Ebonyi and Niger States. In addition, the project assisted Cross River, Delta, Ebonyi and Kebbi States to develop robust and sustainable State Agricultural Policy documents. These documents are expected to serve as a reference guide for the implementation of agricultural activities in the States, supporting evidence-based decision-making in line with the USAID/Nigeria strategies.



Figure 18. The Kebbi State Rice Policy note presented to the Kebbi State Governor by Project



Figure 19. Permanent Secretary, Delta State MANR making a remark during the Delta State Agricultural Policy validation workshop in Asaba, September 2020..

(f) Fostering stakeholder engagement.

To enhance policy dialog amongst all stakeholders in the agricultural policy process, particularly in Kebbi State, the Project initiated the Kebbi State Agricultural Policy Brown Bag Series. The Series is hosted alternately by the Ministry of Agriculture and Natural Resources (MANR) and the Kebbi State University of Science and Technology, Aliero. The Series provides an opportunity for stakeholders to interact and dialog on relevant issues of agricultural policy. Stakeholders attending the series include those involved in policy making and implementation, primarily consisting of personnel from the State MANR, and academics who are involved in policy relevant research that generate the evidence needed for policy making, as well as direct beneficiaries including farmers, entrepreneurs, and the private sector.

(g) Effective communication with global and local partners

The project has its dedicated website (<https://www.nigeriaagriculturalpolicy.net/>) where all project related outputs are uploaded for easy access among colleagues and stakeholders in the agricultural sector. This was launched in the second year of project implementation and managed by the project's Policy Communications Unit. The various activities and outputs reported on the website include seminars, publications, policy notes, and news on people and events as delivered throughout the project's life. Project research outputs are also accessible to stakeholders through various channels including the websites of MSU (<https://www.canr.msu.edu/fsp/>) and IFPRI-NSSP (<https://nssp.ifpri.info/>). In addition, the project scholars maintain a Facebook Group Page (<https://web.facebook.com/groups/1422426461194336>) that facilitates conversations on agricultural policy issues, particularly in Nigeria by stakeholders across the 36 states of the country, the FCT and beyond Nigeria. The page membership is currently over 1,500 members.

(j) Evidence-Generation and Policy Influence During COVID-19: To support policy development for addressing the adverse economic impacts of COVID-19 policies, NAPP engaged in several activities. NAPP coordinated a series of stakeholder consultations related to COVID-19 and various dimensions related to agriculture. NAPP also worked with a select Agricultural Donor Working Group Task Team to develop an agriculture policy note and topics for a high-level discussion between the Vice-President and the Key Political Partners. In all these engagements, the project contributed evidence based on research and stakeholder engagement. For example, the Policy Project conducted a simulation modeling study that estimated both direct and indirect impacts of these responses on Nigeria's economy. The project also conducted a survey of actors along the poultry/maize and aquaculture value chains in Kaduna, Kebbi, Borno, Abuja, Rivers and Oyo States on their economic activities during and after the lockdown period. The findings of these studies were communicated at various events and helped the government, civil society, and development partners, particularly the ADWG to better understand the severity of the pandemic on the Nigerian economy, particularly the unanticipated impacts on the agri-food sector and poverty impacts.

The project presented these findings at national and international fora. For example, the analysis of the economywide impacts of COVID-19 in Nigeria was presented to a global audience attended by 565 participants available at this link: <https://www.ifpri.org/event/virtual-event-covid-19s-short-term-impacts-economies-food-systems-and-poverty-african-and>. NAPP research findings (on key value chains) and collaborative approach to research for policy was also presented 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 attended by 562 people from all over the world. The event recording is found at <https://www.youtube.com/watch?v=VuyzfO7mAkk&t=29s>. The Policy Project presented on NAPP supported research applied to reflect on the impacts of COVID-19 on Food Security in Nigeria 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). Presenting at these fora 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 Policy Project 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

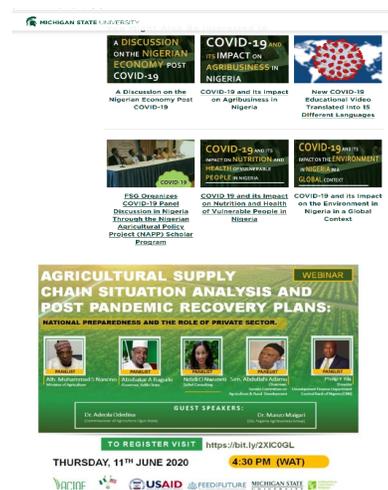


Figure 21. Cross section of some of the Covid-19 related sessions organized by NAPP

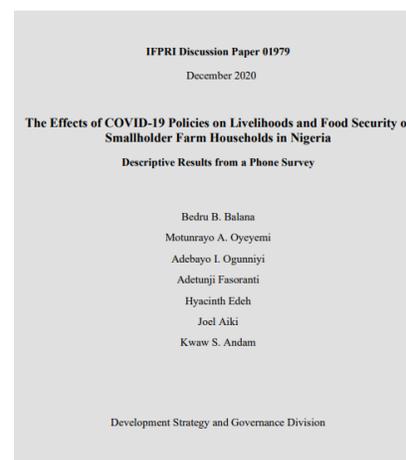


Figure 20. NAPP collaborative research adopting phone survey for the study of household impacts of COVID-19

is a repository of information on public policies during the pandemic, which is made available for researchers and policy-makers.

LESSONS LEARNED, CHALLENGES, AND OPPORTUNITIES

Better coordination between research and policy conversations is needed in Nigeria to have policy influence. As a result of frequent changes in national agricultural policies occasioned by high turnover of policy makers and implementers, continuous provision of evidence-based research outputs in a timely manner to support such decisions remains pertinent. Such rigorous research outputs which directly focus on contemporary issues of government have high likelihood of policy makers and wider donor programming acceptance.

Mentoring must be paired with training to sustainably strengthen capacity. For sustainability, training alone (without mentoring) is not enough to strengthen capacity. Mentoring takes time but is extremely important to ensure that skills acquired during training are well assimilated and enable proficient trainees to confidently share their knowledge, apply these skills and train others. The project has also learned through the scholars program that intensive but strategic investments in a few Nigerian scholars can have an exponential impact on other Nigerians.

Capacity strengthening efforts need to reflect the institutional arrangements of key agencies. Although the project had assisted FMARD to improve its performance through monitoring, evaluation, and learning (MEL) training aimed at mid-level staff, it was clear that the capacity strengthening activities should also target the directorate/leadership of FMARD. Directors are in the front line in the release of funds to properly implement MEL activities. Furthermore, the Ministry has an apex MEL unit that oversees all MEL activities across the departments, divisions, and units in the ministry. There are also MEL units embedded in the planning units of various ministry departments. The apex MEL unit usually takes over the MEL activities of these other constituent units leaving their MEL underperforming. Targeting the apex MEL unit for capacity strengthening would improve the synergy between the Ministry and departmental MEL.

Socioeconomic shocks and disruptions to project implementation require adaptation to maintain project impacts. The outbreak of COVID-19 and associated restriction of movement affected project planned activities including capacity building, field monitoring visits, meetings and workshops. The project managed this challenge by adopting digital technologies, where possible to deliver on project activities.

The project engaged effectively with stakeholders and helped staff to telework and effectively deliver on project activities including research, policy engagements, dissemination, and training and mentoring. Even as lockdowns were relaxed, the project continued to explore and leverage digital technology to achieve its deliverables. However, the project also learned that though stakeholders were willing to participate in digital activities to seek relevant information for decision-making, challenges associated with internet connectivity and cost of access hindered effective participation in some cases. Some activities, such as effective policy engagement and interactive training, are still best conducted in-person.

Based on stakeholders' efforts towards post-COVID-19 economic recovery and the demand for evidence-based research outputs, the project embarked on relevant analysis and dissemination of findings to respond to the demand. Though the pandemic caused several restrictions, the project leveraged digital technologies to contribute in a timely fashion to the discourse.

A key lesson was the diverse ways that the project activities, particularly the scholars program, is having an impact in Nigeria and beyond. The investment of a short tenure study at MSU by 13 scholars, who were mentored, 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. The impact of capacity building efforts should be considered as a long-term investment. It needs to be well monitored to accurately document the contributions and the returns on USAID's investment on these scholars.

The Policy project scholars program learned that initial interaction with the faculty and institutional leadership from their home institutions is an important factor. Such interaction helped to ensure that the scholars received local institutional support needed to implement new ideas and apply new skills acquired as project scholars, on their return home. This is also another value of having their Nigerian supervisors for some time, at MSU during the program.

The intensive but strategic investments in a few Nigerian scholars can have an exponential impact on other Nigerians. While the policy project was encouraged by the fact that the benefit of investing in the scholars has spillover effects through their ability to train others, it is important to note that the ways in which scholars can be engaged to support the policy project may vary in terms of their ability and level of training or expertise. The expectations for a Masters student spending 1 semester is significantly different from other PhD students who spent a whole academic year at MSU.

Through the process of receiving and assisting the Nigerian graduate students to settle into the U.S., the project team learned that at least two months are required to obtain the US visa. Housing the students on-campus in the Graduate Dorm (Owen Hall) facilitated their easy movement across the university. Weekly meetings with their Faculty mentors (based on their research team assignment) kept them fully involved in NAPP research activities.

Some challenges noted associated with media engagement, particularly the NASS Press Corps. Though the journalists and news correspondents appreciated the trainings they attended, there was a strong preference for stipends for attendees by media personnel. Since the Project does not provide such stipend, there was a lackluster attitude towards invitations to trainings.

Some beneficiaries at the University of Agriculture, Makurdi (UAM) were interested in the use of STATA for statistical analysis and have obtained older versions of the software. Policy researchers at the Ebonyi State University, keen at improving their skills in statistical analysis using STATA, have purchased current versions of the software to meet their needs.

The project used a step-down approach to promote sustainability, through continuous involvement of trained beneficiaries in subsequent trainings as trainers. However, the project learned this approach requires adequate backstopping over a period of time to allow for increased confidence among such beneficiaries.

Adjusting to COVID-19 constraints have shown that leveraging on information technology (including phone calls, email and skype) produces a huge benefit. However, the project observed that many ministry staff lack basic infrastructure and equipment to adequately fulfill their tasks using current technology. For example, as the project interacted with the trainees (from the training on linking data to policy) to revise and finalize the state policy notes on selected priority crops, several of the ministry staff did not have direct access to a computer and relevant software (in their offices) and thus had to resort to using business centers or borrowing from others to complete their tasks. Similar observations

were made during the state level training on STATA and the post training discussions on how trainees could build on the skills acquired.

STATA training delivered by the project to researchers in Delta State University, Asaba did not show outcomes since beneficiaries were unable to renew their trial version license after its expiration. R statistical package (for statistical analysis) on the other hand, is open-source, free to users but requires some background programming skills. In response to funding limitations on the use of STATA, USAID recommended that beneficiaries be given overviews of STATA and the R Package for them to determine the best fit themselves. Thereafter, STATA training continued on a demand basis but only for participants with STATA license.

The trainer piloting the train the trainers approach, stressed that when transferring the training on STATA through a trained beneficiary (in the step-down approach), it is important to be aware that such statistical tools and their application in statistical analysis, require technical skills and expertise, acquired over time through constant usage. Some institutions showed interest in purchasing the STATA license while others indicated it was not affordable at their institutions.

After the Policy Communications training delivered by the Project in Kaduna, it was observed that media beneficiaries now write better policy reports. This was supported by National Agricultural Extension and Research Liaison Services (NAERLS) participants who corroborated that the information forwarded to the journalists were better communicated after their training. NAERLS participants also appreciated the opportunity to have been trained collectively alongside the media practitioners. A set-up that allowed for synergy and effective collaboration among various stakeholders in the agricultural sector. It was highlighted during the training that participating journalists and news correspondents are located in the FTF focus states, while their editors who direct what journalists and news correspondents do, are usually located in Lagos State.

Standard indicators may not always reflect the full range of project impacts. Due to the limited access to infrastructure of many of the state level actors, the project actors realized that a larger share of the interaction at the state level happened outside of regular meetings through numerous discussions by phone and WhatsApp which are not always easily captured by the standard indicators.

The delays related to the 2019 general elections and protracted strike actions embarked upon by the Academic Staff Union of Nigerian Universities affected project planned activities. However, the project doubled its efforts in the subsequent quarters after these events to meet up with its deliverables for the period.

The nature of the Policy Project which focused on the policy makers and associates made it difficult to achieve reasonable gender and youth balance. The project worked with the existing employment structure in Nigeria where the population of women in employment is lower than the population of men. Also, youth as defined by the donor (18-29 years) are difficult to find among the policy makers.

Some policy activities continue to be hampered by political and logistical events. Over the course of implementation of activities, the Project at some point was in constant communication with the Senate regarding the delivery of policy round tables for the Senate Assembly. Despite numerous efforts by the Project, these policy roundtables were not held due to reasons around delays and other engagements from the NASS Senior Management (and mostly related to the election campaign in the country). This highlights the challenges sometimes faced by the Project in delivering joint events with various stakeholders. Similarly, the third national conference of the project in collaboration with APRNet could not be held due to COVID-19 pandemic closures. The planned event was cancelled following the Federal Ministry of Agriculture and rural Development (FMARD) cancellation of a

similar event (the National Council of Agriculture and Rural Development -NCARD) within the period for same reason.

Integration of Crosscutting Issues, Partnerships and USAID Priorities

Throughout the life of the project, NAPP collaborated with several stakeholders including other USAID FTF IPs to enhance impact. For instance, the project worked with the Agribusiness Investment Activity, the Partnership for Inclusive Agriculture in Africa, and the Maize Quality Improvement Partnership. A collaboration framework was developed, with USAID guidance and approval to encourage effort sharing and avoid unnecessary overlaps in project activities. Within this framework, NAPP committed to several areas of collaboration including joint meetings and events at the state level that encouraged agriculture and agribusiness policy reform, facilitated access to research findings, provided explanations of relevant policy lessons for each activity, and introduced IPs to public and private policy influencers.

Consequently, NAPP collaborated with the Agribusiness Investment Activity on the Ebonyi and Delta States agricultural policy documents. The project also engaged with the Maize Quality Improvement Partnership for an aflatoxin dissemination event, and facilitated the involvement of the FTF Nigeria Agricultural Extension and Advisory Services Activity in the national extension workshop in December 2020.

By consistently seeking gender and youth inclusiveness in the programming, NAPP adopted the gender mainstreaming strategy, i.e. a deliberate consideration of gender and youth 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 considered gender balance and youth engagement at all levels of programming. This reflected in staffing of the project where 44.4 per cent were females and 55.6 per cent males. Over the years, the project achieved 29.5 percent of female involvement and 70.5 percent male involvement. Considering the nature of the project which focused on policy makers and academia who were at the helm of affairs to take strong decisions, it became difficult to engage youths in programming. Thus, the project achieved 4.1 per cent youths and 95.9 per cent adults. The project also supported the gender unit of the Federal Ministry of Agriculture and Rural Development with the provision of technical assistance towards the development of a national gender policy in agriculture document, following a request from the Ministry. This achievement confirms project support for gender-related issues in Nigeria.

DETAILS OF PROJECT COMPONENTS

Component 1: Activities to Enhance National Agriculture and Food Security Policy Capacity

This component of the project focused on developing the technical capacities of beneficiaries at both federal and state levels. The project team worked with stakeholders for effective and efficient engagement and to ensure the sustainability of the project activities beyond the life of the project. The project worked extensively with the Project Coordinating Unit (PCU) at FMARD for capacity building activities. At the state government level, the departments of the planning, research and statistics (DPRS) of the state ministries of agriculture and natural resources (MANR) were the major collaborators. The All Farmers Association of Nigeria (AFAN) served as the major point of contact to farmer groups, while all project activities targeting the academic environment were carried out in

collaboration with the Association of Deans of Universities of Agriculture in Nigeria (ADAN). The project reached out to media practitioners/journalists through the Nigeria Union of Journalists at both the federal and state levels. In some cases, beneficiaries were reached through multiple channels.

The training courses were demand driven. The project guided the selection of the participants with strong emphasis on gender diversity, youth engagement, and USAID focused value chain commodities (Aquaculture, Cowpea, Maize, Rice and Soybean). Prior to the capacity building activities, the project ensured a roundtable discussion with its stakeholders at the planning stage and development of annual work plan, to discuss and accommodate the capacity building needs.

The project encouraged the participation of young researchers and emphasized gender balance wherever possible during the selection of the participants. Before the incidence of the COVID-19 pandemic, these capacity building activities were delivered in-person. However, during and post COVID-19 pandemic, the project combined both in-person and virtual options to deliver training activities.

The project delivered its trainings in a style that encouraged full participation of the participants with opportunities for discussions in plenary. Accordingly, the trainings usually held with not more than 30 persons per class. Due to the outbreak of the COVID-19 pandemics towards the end of the project, NAPP adopted various digital platforms to deliver most of its trainings. All the trainings delivered were over a period of 2 – 5 days. The project continued to support its stakeholders and mentored previous beneficiaries by engaging them in trainings for new beneficiaries and to develop various outputs based on previous trainings received.

Capacity strengthening via the Project scholars Program.

From the outset, NAPP set out to use a comprehensive approach to capacity building that included (but was not restricted to) trainings. The project wanted to ensure that trainings were supplemented with mentoring along with collaborative research and analysis. Thus, one of the cornerstones of this capacity development approach was the NAPP Scholars Program, which brought 13 young Nigerian Scholars (Masters and PhD students) and their advisors to MSU for courses, research and skills training and support, as well as research network development, combined with long-term mentoring. The scholars program was designed to engage in sustained capacity building with Nigerian universities and research institutes, to support the national researchers to be the “go to” for evidence based policy recommendations by the Federal and State Ministries of Agriculture and other stakeholders. Thus, the NAPP scholars program was designed and implemented using a “training of trainers” approach where scholars were deliberately trained and mentored to be able to pass on their skills (e.g. econometrics and other data collection and analysis skills, article writing skills and research dissemination and policy engagement). The scholars program was designed to show the huge impact from supplementing training with mentoring and to demonstrate the value of investing deeply in a few who can then pass on their acquired knowledge and skills to many others (formally and informally) while at the same time changing the research-policy culture in their institutions. This section provides additional details of these activities.

(h) Overview of Scholar Program

Over the 5 years period, the project had 13 NAPP scholars (6 male and 7 female). The standard operating procedures for the scholars program can be categorized into four key segments.

1. Selection
2. Post Selection and Pre-Arrival preparation
3. Actual training at Michigan State University
4. Follow up Post training and mentoring at MSU and in Nigeria.

The scholars were selected using a set of guidelines agreed upon by the NAPP IPS, MSU and IFPRI with input from the national advisory committee. A document which includes the selection criteria as well as the expectations and responsibilities of the scholars, their Nigerian advisors and the two project IPs can be found here:

[Link to Guidelines for Scholar Selection under the Nigeria Agricultural Policy Project](#)

Once selected (and as documented in the guidelines document), the project supports the scholars and their advisors through the visa application process as well as travel arrangements to and from MSU, and their lodgings in East Lansing. For the professors, this planning period also involves setting up meetings with MSU faculty working on similar research areas, as well as scheduling classroom visits when professors audit an undergraduate and a graduate level course, meetings with faculty and programs/units that deal with regional studies (e.g. Africa) or teaching.

During their tenure at MSU, all scholars take classes carefully selected in collaboration with the principal investigator to strengthen perceived or identified research gaps. Since this training is not a degree granting program, the scholars' class grades are the official record of their attendance.

Scholars submit weekly reports to the U.S. based Project Management team (usually less than a page) that summarized work done and challenges faced, during the week. This facilitated regular project support for the scholars to deliver on agreed timelines and made management aware of their challenges. Thus, guidance on necessary actions or assistance with a solution where possible, were provided. Scholars and their advisors prepared "Highlights" to document their experience living and learning at an American campus. These were some of the main instruments used to document their visits and experiences. In line with the Guideline for the scholars program, scholars and their advisors gave presentations while at MSU. Prior to returning home, scholars and their advisor, engaged in an exit interview with the U.S. project management team.. This exit interview enabled the project to better understand the experience of the scholars on a broad range of issues ranging from room and board to their courses and the research networks they were able to establish and wanted to continue to nurture upon return home.

Upon return home, the Policy Project continued to follow up with the scholars and their advisors on the students' academic progress as well as with the activities they are engaged in related to teaching and research specifically and based on some of the highlighted lessons learned and other things that came up in the exit interview. Many of the scholars continued to be mentored by MSU faculty, upon return to Nigeria and are engaged in ongoing project activities in Nigeria. This is one way the scholars continue to be mentored with the project management team keeping records of their progress. Short project highlights are the standard way the project collects this information and documents it. In addition, once every quarter, the project sends out an email to a subset of the scholars and advisors for updates on their activities since their Project Scholar study time. See Annex B for some highlighted stories and pictures of our project scholars.



Figure 22. Dr Olumba Charles (NAPP Scholar) supervising participants during an R exercise/ training with Staff of the Ministry Of Agriculture And Natural Resources, Minna, Niger State.

Component 2: Policy driven collaborative research and analysis

This component aimed at generating evidence-based research outputs, borne out of rigorous processes and application of the state-of-the-art methodologies, to guide and support government focused policies and programs. The various topics covered were based on the broad national policy issues on agriculture, food and nutrition security as identified in the various national policy documents. In most cases, issues were jointly identified and collaboratively analyzed for stakeholder consumption. Early in the research process, interactions with stakeholders (e.g. policy makers, civil society and private sector and researchers) were organized and helped to set the agenda and fine-tune research questions. The research undertaken were under five (5) agricultural thematic areas as highlighted below. The links to the publications are available at the annex section.

- Agricultural and Food systems transformation
- Extension service delivery
- Nutrition, food security and food safety
- Agricultural credit and finance
- Land governance and political economy issues
- Climate change and resilience



Figure 23. Title page of "Do Credit constraints Affect Agricultural Technology Adoption?"



Figure 24. Title page of: "Poor Dietary Quality is Nigeria's Key Nutrition"

Component 3: Strengthening Evidence-Based Policy Process and Promote Impact

Since NAPP implementation activities were strategically designed to integrate capacity strengthening into its evidence generation and delivery, activities under component three are intricately linked to those of component 1 and 2. In addition to the collaborative research process that was used to generate the evidence base for policy dialog, the other mechanisms through which NAPP strengthened evidence based policy processes can be categorized into two: The first centers around **research dissemination** via formal interactions such as validation workshops, seminars, conferences, policy dialogs and follow on training activities. The second strategy centers around **the use of research evidence to support particular Federal or State policy processes** via more focused and deliberate post research engagement.

Formal disseminations activities

- Validation workshops and seminars:

Following preliminary analysis, the Policy project typically organized validation workshops and/or seminars with relevant stakeholders to get their perspective on the findings which were then incorporated as the project teams finalized research studies and relevant outputs. The project delivered 81 seminars to stakeholders over the 5 year period. This included seminars on “Food System Transformation, Dietary Change, and the Role of Agricultural Policy in Nigeria” as well as Climate Change and Resilience.

- a. Support to Local Networks

As part of efforts towards promoting agricultural policy research and communication in Nigeria, the NAPP supported APRNet in its Annual National Workshops which brought together relevant stakeholders. These stakeholders, primarily from the agricultural sector brainstormed on the challenges facing the agricultural sector and food security in the country and the role of stakeholders in addressing these challenges. Prominent government officials, representatives from private sector, NGOs, CSOs and academia were usually in attendance.



Figure 25. George Mavrotas giving his opening remarks at the 4th APRNet Forum

- b. Dialog series:

To foster sustained interaction between stakeholders in the policy process, the project supported the pilot adoption of a Policy Brown Bag Series in Kebbi State tagged ‘Kebbi State Agricultural Policy Brown Bag Series’. The dialogs series brings together stakeholders from the government, academia, Civil Society, Non-Governmental Organization, farmer groups etc.. to dialog on policy relevant issues in the state. Some of which included aquaculture, agricultural insurance and adoption of improved seed varieties. The first of the series was held in April 2017 in Birnin Kebbi hosted by the Kebbi State Ministry of Agriculture & Natural Resources. Between 2017 and when the project ended in 2020, four dialogs were held.



Figure 26. Mr. Goni co-presenting project research on Fish Value Chain Study in Kebbi State @ the Kebbi State MANR.

- c. Round table discussions:

To strengthen the policy process by bridging the gap between “knowledge providers” and “knowledge users, meetings and round table discussions with Agricultural stakeholders and policy makers were held. Participants included State Commissioners for Agriculture (Nasarawa and Rivers States); Permanent Secretaries State Ministries of Agriculture (Ebonyi and Kaduna States); and Directors, Planning Research and Statistics (Ebonyi, Kaduna, Nasarawa and Rivers States). They also included Directors, Project M&E of State Agricultural Development Programmes (Ebonyi, Kaduna, Nasarawa and Rivers State) and Faculty at the Nasarawa State College of Agriculture. Through these round table discussions, the project strengthened the linkages between Faculty at institutions of higher learning (e.g. Ebonyi State University) and staff at the Ministries of agriculture, a lasting relationship that contributed to the development of state policy documents. In Nasarawa State, the State Ministry of Agriculture and the State Government recognized the College of Agriculture as the go to, on questions



Figure 27. Honorable Minister of Agriculture and Rural Development, Chief Audu Innocent Ogbah giving a welcome address during NAPP Conference

on agricultural policy of the State. Hence, the project team followed the meetings with discussions on collaborating with the Nasarawa College of Agriculture on mutual beneficial research issues. The collaboration led to the submission of a grant proposal, conceptualized by Faculty at two institutions, on issues relating to sustainable land access for agriculture.

d. Conferences:

Through conferences, the Nigeria Agricultural Policy Project sought to systematically bring together various stakeholders and actors in the policy process to share knowledge that contributed to improved policy processes in the agricultural sector and Nigeria at large. It also sought to participate in relevant fora which helped to influence agriculture and the food policy process and programming in the country. The Project organized two major conferences in September 2016 and August 2018. The themes of the conferences were “Promoting Agricultural Policy in Nigeria: Challenges and Opportunities” and “Collaborative Research for Agricultural Policy in Nigeria” respectively. These high-profile events attracted participants from all over Nigeria including representatives from academia, federal and state government officials, agribusiness, private sector, farmer organizations, the media, and civil society organizations among others.



Figure 28. Dignitaries during the NAPP Second Conference in Abuja

In addition to organizing NAPP conferences, NAPP regularly participated in national and international conferences as a way to disseminate research output, engage with stakeholders and support capacity strengthening. For example, NAPP organized joint sessions with the Nigerian Agricultural Economics Association during their annual meetings. Majority of these joint sessions were focused on capacity strengthening for young Nigerian scholars in the field of agriculture. The activities included sessions where young scholars presented their research and got feedback at a training and mentoring session on peer reviewed journal article writing that culminated in three peer reviewed journal publications and six presentations.

Follow on policy support and training:

Following a series of research studies conducted by the NAPP climate change research team, the project collaborated with Action Aid and provided technical support to the Ebonyi State Government in its development of the Ebonyi State Climate Change Policy. The activity was co-led by a NAPP collaborator from the Alex-Ekwueme Federal University Ndufu-Alike Ikwo. It was coordinated through the Office of the Senior Special Assistant to the Governor on Climate Change with the Ebonyi State MANR and the Ministry of Environment. Upon the completion of the activity, Ebonyi State had hopes to be one of the first states to develop a Climate Change Policy that targets the agricultural sector of the state. The project also conducted follow on training based on research findings. This included a training on maize handling and storage for food safety and on record keeping for poultry farmers.



Figure 29. Poultry farmer training organized by the poultry value chain research team

Following research conducted on the maize-poultry value chain, it was observed that though numerous poultry enterprises were highly commercialized, poultry farms were either not keeping records or keeping poor records and this was affecting their profitability. Working with the private sector, the project coordinated a training on the importance of accurate record

keeping followed by some tips on how to keep accurate records for poultry farmers.

Monitoring and Evaluation

NAPP had a standard MEL system including MEL plan, indicators, tools, and processes that were used to measure project achievements. The MEL plan included other tools such as a baseline, tracker, attendance sheets, beneficiaries' database and storage medium. It was developed as a guide that explained the NAPP methodologies, goals and objectives in a coherent manner. The plan, being a living document, was updated yearly following the USAID approval of the annual work plan.

At the inception, the project carried out robust baseline studies which documented the preliminary findings that the project improved upon, selecting indicators and setting targets. The project during the life span tracked both FtF standard and custom indicators. The FtF standard indicators were from the FtF handbook and the custom indicators were developed by the project to best describe the project's immediate achievements where the standard indicators did not suffice. At some points, the project dropped some indicators, based on the recommendation of the USAID/BFS MEL Advisor to the Mission. Specifically, the project dropped the NAP1.3.7: Number of government units or division that have received short term training and replaced it by FtF EG.3.2-29: Percent of organizations with increased performance improvement with USG assistance. Resulting from this, the project employed the Organizational Performance Index measurement tool (OPI) to track achievement on this indicator. The OPI endorsed by USAID helped set up baselines and measured change in organizational performance over time.

The project's M&E unit managed the timely submission of several deliverables including quarterly and annual reports and updating of dedicated online reporting system such as the Monitor and FTFMS. There were data validation, monitoring field visit, Data Quality Assessment and evaluations which checked and guided the project implementation strategies. The feedbacks and lessons learned were incorporated into the strategies.

Conclusion:

This final project report has highlighted the activities, achievements, and lessons learned from implementation of the USAID FTF Nigerian Agriculture Policy Project (NAPP) by MSU and IFPRI in collaboration with national partners in Nigeria from July 1, 2015 to January 31, 2021 with a budget of US\$12.5 million. The goal of NAPP was to promote inclusive agricultural productivity growth, improved nutritional outcomes, and enhanced livelihood resilience for men and women through an improved policy enabling environment. This report shows how the project achieved this goal through its strategic approach and necessary adaptations throughout the lifetime of the project, especially in the midst of the COVID-19 pandemic in the final year of the project implementation.

NAPP has supported Nigeria's Journey to Self-Reliance in agricultural policy development and implementation. This is because through NAPP, Nigeria's agricultural policy process now has access to a large body of analytical evidence, an enhanced capacity to generate data and conduct research, and stronger networks for policy development. As noted in this report, the key accomplishments of NAPP which led to achieving the project's impacts include evidence generation through collaborative research on a range of policy issues, research dissemination through various fora, contributions and engagement with policy processes, capacity strengthening in Nigerian institutions, capacity strengthening and enhanced impact of NAPP Scholars, and capacity strengthening and enhanced impact of partners in Nigeria's policy research networks, media, and private sector. To sustain these achievements, and to address new challenges to Nigeria's food system, the built capacity now needs

to be consolidated at the institutional level through more repeated learning-by-doing and applied more explicitly to policy formulation in line with the lessons learned from NAPP.

In the course of implementation, the IPs, MSU and IFPRI, with their strong network of partners in Nigeria, have drawn lessons on improving the coordination between research and policy processes in Nigeria, increasing the likelihood of success of capacity strengthening activities, and adapting to major disruptions such as COVID-19. The medium-term impacts arising from COVID-19 for Nigeria's agricultural development make it more important than ever to strengthen agricultural policymaking in Nigeria, based on strong empirical information and sound understanding of the country's food systems. Research findings need to be updated, and skills need to be maintained, as crucial inputs to ensure effective influence on policy under changing circumstances. Towards the end of NAPP implementing activities, several stakeholders in Nigeria indicated to the IPs that there are existing and new needs and demands for activities to strengthen the commitment and ability of stakeholders across the agriculture sector to formulate, implement, and monitor policies that foster robust and inclusive growth. As such, the IPs have explored, with various stakeholders in Nigeria, a set of priority topics to be implemented under a follow-on Nigeria Agriculture Policy Activity, to be implemented by MSU and IFPRI. The achievements and lessons learned from NAPP implementation, as described in this report, will serve as useful guides for building on the achievements to guide Nigeria's Journey to Self-Reliance with institutional capacity strengthening, evidence-based research, and policy influence. This will help to develop a more productive agricultural sector, to enhance diet quality and food security, and to build better livelihoods for men, women, and children in Nigeria.

ANNEX A. Consolidation of Project Indicator Results

Indicators 1)	Actual:						
	July - Sept 2015	July 2015 - Sept.2016	Oct. 2016 – Sept. 2017	Oct. 2017 –Sept. 2018	Oct. 2018 –Sept. 2019	Oct. 2019 –Sept. 2020	Oct. 2020 – Jan. 2021 2
Publications							
Number of policy research and best practice papers generated.	1	11	29				
Number of high-quality research reports published				16			
Number of research reports published					13		
Number of high-quality research reports published having undergone peer review (internal/external) and disaggregated by type (working papers and journal articles) Custom Indicator						23	2
Number of agriculture policy communications developed and/or written for stakeholder consumption				49	64	17	5
Number of collaborative policy research work and analysis completed jointly with local partners				12		3	
Disseminations							
Number of stakeholder learning forums held where findings/best practices are presented		13	37				
Number of individuals participating in USG food security programs. Standard Feed the Future (FTF) Indicator EG.3.2						807	
Number of participants attending project organized events.		696	629				
Number of participants attending project organized research and policy events. Custom Indicator				1274	1625	12, 971	235
Trainings							
Number of collaborative research teams involving local partners formed and undertaking policy research and analysis	2	10	10				
Number of technical training courses offered to build technical skills and capacity for policy analysis		12	33				

Number of individuals who have received USG supported short-term technical training in agricultural sector productivity or food security policy analysis training		334	921	1085	2489		41
Number of individuals who have received USG supported long-term agricultural sector productivity or food security training. FTF 2(6)		1	5				
Number of individuals who have received USG supported degree-granting agricultural sector productivity or food security training.				7			
Number of Nigerian graduate students who have received support for skill enhancement training in the US through NAPP program		2	5				
Number of individuals who have received USG supported degree-granting non-nutrition-related food security training. Standard Feed the Future Indicator (FTF) EG.3.2-2					7	3	
Interactions with Government and Private Organizations							
Number of formal, informal or ad hoc meetings held with key government or private sector partners where project outputs and findings are discussed.		76	119				
Number of public private advocacy dialogs focused on policy that supports private sector investment				3	4	0	
Number of government units or divisions that have received short-term training (USG assistance)				13			
Number of for profit private enterprises, producers' organizations, water users associations, women's groups, trade and business associations, and community-based organizations (CBOs) receiving USG food security related organizational development assistance				41			
Number of organizations with increased performance improvement with USG assistance Standard Feed the Future (FTF) indicator 3.2-29					7		
Percent of USG-assisted organizations with improved performance						8	
Number of organizations/entities assisted to participate in various roundtable and stakeholder meetings, seminars and conferences focused on agricultural policy issues.		14	85				

Number of agricultural and nutritional enabling environment policies completing the following processes/steps of development as a result of USG assistance in each case: FTF 1(24):		2	2	3			
Number of agricultural and nutritional enabling environment policies analyzed, consulted on, drafted or revised, approved and implemented with USG assistance						2	
Scorecards							
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.				1.44	-	-	
Index (or scorecard) of quality of the institutional architecture for agriculture and food security policy processes in Nigeria, as measured by stakeholder evaluation survey to capture level of satisfaction and confidence.				1.74	-	-	

- 1) The numerous indicators reflect the on-going discussion between USAID Nigeria and the Project to determine the optimum number and wording of the indicators
- 2) This column pertains to the project's ongoing activities during the no-cost extension phase.

ANNEX B: SELECTED SUCCESS STORIES

NAPP Conference

NAPP identified significant interest among Nigerian researchers in engaging with the project and its activities. This was observed in a response to the call for papers for the first NAPP conference when the project management team received 100 submissions, a very impressive response for a first project conference. Even as the project management team could accommodate only about 25 of these submissions in the program since there was an associated cost, other individuals whose submissions were not selected still attended the conference at their own cost.

As part of the NAPP strength for quality work, the United States Institute of Peace (USIP) invited the project to participate in a high-level consultation that involved 19 state governors from Northern Nigeria in Washington D.C. State governors were on a tour to explore opportunities to attract investments in their states and promote various state objectives: typically involving agriculture. The project participated in a Panel Discussion on 'Leveraging Natural, Organizational, Financial and Human Resources to prepare for Investment' moderated by Dr. Paul Lubeck of John Hopkins University. The panel discussion was used to highlight the project as a special purpose vehicle funded by USAID Nigeria Mission. The project used the avenue to shared other project activities including research output and engagement on agriculture and agricultural policy in Nigeria. This information was well received particularly research output on particular states. Several governors including those of Bauchi, Borno, Kano, Kwara and Plateau States shared their direct contacts and extended an invitation for a visit to their states as well as provide further briefing of the Projects work. The project leveraged on this gesture for its activities in a sustainable way.

...was used to highlight the project as a special purpose vehicle funded by USAID Nigeria Mission...

Scholars Program Success Stories- Multum-in Parvo

Multum-in Parvo (Much in a little) is a key lesson learned from the development and implementation of the Policy project's scholars' program. There is so much more power in capacity building efforts than is appreciated and documented. The NAPP scholars' program has demonstrated that strategic capacity building efforts with a **small number of dynamic, innovative scholars** can achieve so much! The training, coaching and mentoring program that the Policy Project provided to Nigerian scholars is of essence and beneficial to the wider Nigerian agricultural sector. Due to the perceived benefits, NAPP through the Policy project's principal investigator has been invited to several national and international fora to share this experience. The NAPP approach for capacity strengthening has influenced the development and implementation of national, continental and global efforts to strengthen capacity of African research systems and informed a mentoring program implemented in the United States of America (USA) by the [African Section of the Applied and Agricultural Economics Association \(AAEA\)](#).

Below are some success stories related to the scholars' program train one to train others approach:

(A). Training supplemented by extended mentoring can generate spill overs instrumental for sustainable capacity strengthening: Train one to train others approach.

The project generated encouraging evidence about the value of investing in few young Nigerians to reach thousands more. One of its three principal objectives was strengthening Nigerian capacity for greater evidence-based policy processes in agriculture. The focus was on increasing the ability of Nigerian analysts to undertake and broadly disseminate relevant evidence-based policy analysis. Achieving this goal made it imperative for researchers to acquire the tools and develop the necessary skills to perform rigorous data analysis. In response to challenges associated with access to affordable software, the project in its earliest stages delivered a series of trainings (for university lecturers and staff of Ministries of Agriculture in FtF focus states across Nigeria) on agricultural data analysis using the free and open-source R programming software used for statistical modelling and analysis.



Figure 30. Cross section of NAPP Scholars and Faculty trainer on R (Dr. Olabisi) during their first stint as apprentices to Dr. Olabisi in a training event in Nigeria.

The expandability of R allowed developers to easily write their own software for distribution in the form of an add-on package. These developers were now empowered with free access to software that they customized. Our dynamic, innovative NAPP project scholars conducted most of the trainings. The scholars first spent a year learning about “R” and using it, under the tutelage of Dr. Michael Olabisi. Thereafter they served as apprentices to Dr. Olabisi as he organized subsequent trainings, giving them additional experience with the use of R and building their confidence to train others to use the free customizable software. Trained and mentored this way, the NAPP scholars went on to offer training sessions across Nigeria. Such sessions were held at institutions including State Ministry of Agriculture and Natural Resources (MANR), Minna, Niger State, Ebonyi State University (EBSU), Abakaliki and Ahmadu Bello University (ABU), Zaria This is a typical illustration of the benefits of NAPP’s operational strategy: “Training one to train others”. The 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 led to stronger support for the policy process across the country.

(i) Quotes from participants in the training:

- At the Minna, Niger State MANR training, the participants were thrilled and indicated that they would appreciate if the training lasted more than a week.
- Ebonyi State University (EBSU) training ended with certificate presentation and a vote of thanks by one of the participants, who expressed 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. She solicited a 2nd training session for their group of

participants and that in the future the training should be for at least two weeks for maximal gain.

You can read more about the R trainings from our NAPP scholar highlights below:

- [Training Workshop on R Statistical Language for Staff of Amadu Bello University, Zaria and the Federal University Dutsinma, Katsina State.](#)
Highlights 74, Agada Iveren Blessing PhD. FIMC CMC, March 2020
- [Training and Mentoring on R Now Extended to state Ministry of Agriculture and Natural Resources, Minna, Niger State](#)
Highlights 71, Hephzibah Onyeje Obekpa, February 2020.
- [Reaping the Benefit of the Visiting Scholar Program of the Nigeria Agricultural Policy Project: Training on R Statistical Software](#)
Highlights 70, Balaraba Sule, February 2020.
- [Project Scholars Train Staff of Faculty of Agriculture and Natural Resources Management, Ebonyi State University, Abakaliki on "R" For Statistical Computing](#)
Highlights 67, Philip Hegarty James, February 2020.
- [Nigerian Scholars train staff of the Ministry of Agriculture and Natural Resources in Ebonyi State](#)
Highlights 66, Hephzibah O. Obekpa, January 2020.
- [Enhancing the ‘Train One to Train Others’ Tradition: ‘R’ for Statistical Computing In Benue State](#)
Highlights 59. Agada Iveren Blessing & Philip Hegarty James. 2019.

(B). One trains 125 to train 6,000+ on food safety in Nigeria

Food safety is extremely important for food security and there is a dire need for consumers to be well informed about the challenges of aflatoxin along the Nigerian maize value chain. 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, Toyin Adebawale (Ne Ademola) (a member of the ‘aflatoxin along the maize value chain’ research team) reached over 6,000 Nigerians in 4 States indirectly, through 125 trainees (including extension agents) she trained. The program designed as trainer of trainers was twofold. First to disseminate information about aflatoxin in maize and then, 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 program 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.

During the trainings, Dr. Obadina (NAPP scholar, Oluwatoyin Adebawale’s Nigerian advisor) and Oluwatoyin Adebawale 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 all activities, along the maize value chain, from production to sale. Following the presentation of the technical materials, participants discussed how to effectively communicate the technical information to stakeholders. Participants took turns to practice disseminating the findings to training groups (made up of fellow participants). This ensured that participants understood well, the contents of the presentations while at the same time illustrated 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 program. After each training, the facilitators worked with the participants and kept track of their dissemination experiences.



Figure 31. NAPP scholar (Toyin Adebawale) training extension agents and community representatives on aflatoxin



Figure 32. Extension agents and community members passing on information from aflatoxin training by NAPP scholar (Toyin Adebawale)

As a result of this effort over 6,000 Nigerians were reached with information about food safety. This story shows how investing in the training and mentoring of young Nigerian scholars not only benefits them but also can benefit significantly 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. Oluwatoyin Adebawale conducted a similar two-day training workshop in Ebonyi and Benue states. All together she has trained about 125 community champions and extension agents who went on to train over 6,000 Nigerians. These training and monitoring activities reflect the impact of the Scholar program’s “train one to train others” approach. Further details on some of the state level activities are found below:

- [Aflatoxin Dissemination and Training Programme in Benue State](#)
Highlights 69, Oluwatoyin Adebawale, February 2020
- [Aflatoxin Dissemination and Training Programme in Niger State](#)
Highlights 68, Oluwatoyin Adebawale, February 2020

NAPP scholars incorporate inputs from technical training at MSU into their classes in Nigeria

Upon return home, one of our NAPP scholars, Stella Chude Chiemela continued to use content from the course she took ("Empirical Methods for Field Research in Developing Countries) in 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 has also 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 she was assigned to teach.



Figure 33. NAPP scholar, Stella Chude Chiemela uses knowledge gained to include in her classes.

(C.) Project scholars give back to their communities:

Upon return home, one of the NAPP scholars, Dr. Blessing Agada has used her experience as a Project Scholar and the findings of her work to support maize farmers in her home state, Benue. Her research demonstrated the importance of soil physical properties in determining fertilizer application and agronomic practices for maize farmers.



Figure 34. NAPP scholar, Dr Blessing Agada works with extension agents in her home state (Benue) on agronomic practices for maize production

Agada worked with extension agents in her home state on agronomic practices for maize production using Information and Communication Technology (ICT). This training was then passed on to maize farmers. Read more about this here:

- [NAPP and Relevant Technology- A Success Story an App to Make Good Sustainable Land Management Decisions. Training at the Ministry of Agriculture Makurdi, May 31, 2019](#) Highlights 55, Blessing Agada, September 2019

These are a few more examples 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.

Further examples are found in the following highlights:

- [Nigeria Policy Project Scholar Launches Innovative Research Project at her Home Institution](#) Highlights 28, Steve Longabaugh and Saweda Liverpool-Tasie, June 2018
- [Investment in Good Data Collection Pays Huge Research Benefit in the Long Run: Lessons from my Visit](#) Highlights 26, Osawe, Osayamon Wellington, June 2018

Nigerian supervisors of scholars benefit too! They impact their home institutions in a unique way.

As part of the Scholars program, The Nigerian professors supervising the work of the young Scholars at their home university also had a month's tenure at MSU. During that month, they audited lectures and interacted with faculty and students. They shared teaching and research experiences across institutions in Nigeria and the USA while observing their scholars learn, collaborate and develop new networks. Summarized herewith are some insights from the Visiting Nigerian Faculty that demonstrate how their participation in the Scholars program is impacting them and their institutions back at home in Nigeria.

According to 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 on research design in developing countries 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, all-out from the group mentorship which was 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”.



Figure 35. NAPP professors meet with MSU faculty and visit farms and research centers

- [The Project Scholars Program: What I Take back to my Institution](#)
Highlights 21. Anthonia Ifeyinwa Achike, June 2018
- [Take Homes from my Student in the Project Scholars Program](#)
Highlights 20. Anthonia Ifeyinwa Achike, June 2018

According to 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 Terms of Reference (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, I had participated in drawing up a proposal with MSU Professor. Soji Adelajor 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”.
- [Highlights of My Visit to Michigan State University](#)
Highlights 64. Godwin A Abu, November 2019.



Figure 36. Professor Godwin Abu and his advisee/ Project Scholar Mrs. Obekpa

According to Damisa Maiyaki, Ahmadu Bello University, Zaria, Kaduna State, Agricultural Economics:

- “Aisha Ibrahim, (my NAPP student scholar) was given employment by my University at a sister research institute: The 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 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”.

A few more thoughts from some other NAPP professors from Nigeria who visited MSU:

- [Tapping from the Proceedings of the Michigan State House of Representatives' Committee on Agriculture- My MSU Experience.](#)
Highlights 63. Ayodeji Alexander Coker, November 2019.
- [Nigeria Agricultural Policy Project Scholars' Program: Opportunity for Empowerment, Professional Linkages and Replication of Best Practices.](#)
Highlights 62. Ayodeji Alexander Ajibola Coker, November 2019.
- [The Project Scholar Program: A Rare Privilege and Wonderful Experience Worth Sharing.](#)
Highlights 60, Jonathan Okechukwu Alimba, November 2019.
- [The Project Scholars Program, Personal Benefit to me. It is a Good Investment.](#)
Highlights 19. Anthonia Ifeyinwa Achike. June 2018.
- [MSU: A True Reflection of Academic Center of Excellence.](#)
Highlights 23, Philip Ijirbee Agber. June 2018

- [Visit of my Project Scholar: Take Home Benefits and Experiences.](#)
Highlights 24, Philip Ijirbee Agber. June 2018
- [The Scholars Program Promotes Working across Generations of Scholars](#)
Highlights 6. Adeola Olajide and Saweda Liverpool-Tasie. March 2017
- [Successfully Galvanizing Meaning Agricultural Research in Nigeria.](#)
Highlights 16. Kabir Kayode Salman. June 2018
- [My Visit of Michigan State University: Benefits and Surprises.](#)
Highlights 17. Kabir Kayode Salman. June 2018
- [The Need for more Collaborative Research and Stakeholders' Engagement.](#)
Highlights 18 Kabir Kayode Salman. June 2018

There were significant effects of the scholars' program on the beneficiaries, which extended significantly beyond the expected benefits from class training, mentoring and research. The Project management observed that the scholars were actively engaged with other groups and facilities on the campus and benefited from these resources in very important ways. Interestingly, the scholars articulated their experiences with these related activities as additional scholars' program highlights posted on the website. <https://www.canr.msu.edu/fsp/countries/nigeria/highlights>. These include

- [Taking a Chance on Me! The Ripple Effects of the NAPP Capacity Building Module of Train One to Train Others.](#)
Blessing Iveren Agada, November 2019.
- [My Experience as a Visiting Scholar in Soil Resources Practical.](#)
Highlights 72, Philip Hegarty James, February 2020
- [Cranium to Classroom: A Scholar's Perspective.](#)
Highlights 43, Hephzibah Onyeje Obekpa, April 2019.
- [A Changing Perspective to Data Analysis: My Journey with R Statistical Programming](#)
Highlights 33, Agada Iveren Blessing, September 2018.
- [Learning a New Language: The R Programming Way.](#)
Highlights 29, Osayamon Wellington Osawe, September 2018
- [Visiting Scholar at MSU Toxicology Laboratory - A Dream Come True.](#)
Highlights 13, Oluwatoyin Ademola, December 2017
- [Sustainable Agricultural Data Collection in Nigeria: What can we learn from the USA?](#)
Highlights 10, Wale O. Ogunleye and Aisha Lawal Ibrahim, June 2017
- [The Lattice Community: An Innovative Experiment.](#)
Highlights 61. Balaraba Sule, November 2019.

Conclusion:

The scholars program was an innovative, exciting experience. The project management team was pleased with the general level of engagement of scholars and other participating stakeholders. The scholars and their Nigerian supervisors continue to engage with the project and other faculty after returning home. They improved their knowledge base, research and writing skills while participating in project activities and are committed to use their gains to improve evidence-based research and policy in the Nigerian agricultural sector. This style of engagement requires additional time and effort of all stakeholders, as mentoring and continued follow-up, remain a key quality of a sustainable capacity building and strengthening effort.

Towards the Outcome of Capacity Building Activities:

The project significantly showcased 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 he attended several trainings (including one on policy communication) organized by the project. He unleashed 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. Mr. Atori organized the first Niger State Media Summit for students and youths of the state 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 IBB University, Lapai.

In 2019, the NAPP organized a MEL training for the staff of FMARD where Ms. Mary Onaolapo of FDAE and Dr. Gabriel Malomo of ARCN, FMARD were the most responsive participants with demonstration of high competencies in understanding of the concept of MEL. This encouraged the project to involve them in the delivery of MEL trainings to two targeted groups. Ms. Mary had 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 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 to 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 was keen about as the proposal was under discussion before the exit of the Project).

“Sincerely, I must commend the team [led by] Elisabeth Douglas and Bisola [Oyediran]... I have been a beneficiary of earlier trainings and I can say that all my reports have been standing out in my organization... I want to most sincerely appreciate IFPRI because truth be told and consequences be damned, most of our colleagues and journalists in the state have not had the opportunity to be trained like this. We will put all that we have learned to use, and we will not disappoint you. And the next time you come here; you will beat your chest.”

“There are so many success stories in Niger state after Policy Communications training as some of us (Journalists) have carved niches for ourselves by organising trainings, workshops, and seminars. Most recently, I organised the 1st Niger state Social Media Summit where we discussed SOCIAL MEDIA: THE GOOD, THE BAD AND THE UGLY... references were made to IFPRI as students and youths who turned up were charged to take positive advantage of the Advent of social media. Also, at the IBB University, Lapai I gave a lecture on how to prepare a pitch which I learnt from IFPRI.

The current Chief Press Secretary to the Governor of Niger state, Mrs Mary Berje participated in one of the trainings organised by IFPRI and I can go on and on”.

Dan Atori (New Telegraph Newspaper)

The Project received an interesting feedback from MANR as well as researchers in Cross River and neighboring states on the project’s capacity building initiative on “Issues in Agriculture and Development” for policy analysts. It was learned the training would enhance the synergy between the state policy analyst and researchers to ensure sound policymaking for the state’s agricultural sector. According to Marcel U. Agim, the State Project Coordinator for the World Bank Assisted APPEALS Project in Cross River State, “This training workshop really came at the right time. As a Project Coordinator of a World Bank Assisted Project, every bit of the training (i.e. Land Governance and Tenure Security, Climate Change and Variability, Food and Nutrition Security, Agricultural Project Impact Evaluation) was very key and necessary in aiding me carry out my duties...”. He went further to say, *“I wish to solicit that this type of workshop trainings should be regular as we fight for a zero-hunger world.”*

The Policy Communication training was beneficial to the key stakeholders in sharing and receiving agricultural related information. For instance, members of farmer groups that participated in a Policy Communication training event were thankful for the opportunity as they reported that due to the training received from the project, they were able to monitor the supply and distribution of agricultural inputs in their locality through the use of SMS and phone. Female farmers participating in the trainings indicated that their groups were better organized following the training and had a better understanding of agricultural policies and who to hold accountable.

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 M&E. The trainer focused on several aspects on the principles of M&E, especially the development of MEL plan. Emphasis was on the importance of the MEL plan as a key tool in project management. Some of the beneficiaries within the institution worked together and developed an MEL plan for the mandatory Students Industrial Work Experience Scheme (SIWES) using the MEL skills they acquired during the MEL training.

Over the years, staff of ARC�N benefitted from the capacity building activities including the principles of MEL such as the development and implementation of an MEL plan and frameworks among others. The Project recorded an exceptional outcome from the trainings when some of the participants of the institution led by Dr. Gabriel Malomo utilized the skills to develop a MEL plan for the Journal of Applied Agricultural Research (JAAR). The journal is an activity of the Council under the Knowledge Management Program that is into publication of manuscripts from both local and international authors on agricultural technologies that could increase agricultural productivity thereby reducing hunger and poverty as well as improving nutrition outcomes in Nigeria. Such developments within ARC�N enabled the project to provide advisory and mentoring support which further helped improve national capacity in the agricultural sector in Nigeria.

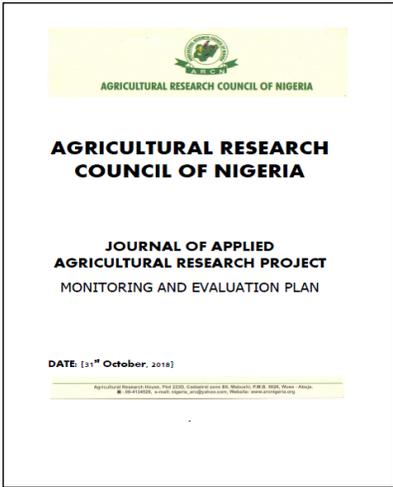


Figure 37. ARC�N MEL plan

In strengthening the Nigerian Farmer groups, the project trained selected members of 15 farmer groups in Ebonyi State on the concept of group dynamics using a participatory learning approach. The training was declared opened by Ebonyi State Commissioner for Agriculture, Chief Moses Nome which indicated the buy-in of NAPP's activities from the State. The training enhanced the skills Nigeria's farmers to be able to strengthen the ability of their local formal and informal groups to



Figure 38. Amina Bashir facilitating a Group Dynamics Training to Farmer Groups in Kaduna State, May 2019

manage their assets, make strategic group decisions and create a balanced level of participation in agriculture. Feedback revealed that the selected group leaders stepped down the knowledge and skills gained from the training in their various groups.

In strengthening the national capacity for making available and disseminating evidence relevant to public policy, the NAPP organized several workshops on Developing Policy Brief for participants

including staff of ministries of agriculture and agricultural development programmes/agencies drawn from the seven FTF states (Benue, Cross River, Delta, Ebonyi, Kaduna, Kebbi and Niger). The training workshops enhanced and strengthened the skills and capacities of the participants to independently develop their own policy briefs. Accordingly, participants developed draft policy briefs which received both technical and editorial supports.

(j) Support to the Development of Nigeria's National Development Plans:

The project supported 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 dialog and policy prioritization. As part of this work, NAPP research provided findings from the Rural Investment and Policy Analysis (RIAPA) model to inform the preparation of the MTNDP-2025 for agriculture, food security, and rural development.

(k) Technical Guidance for Key Political Partners Group (KPPG):

The project worked 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 KPPG. The KPPG included the US ambassador, United Kingdom (UK) high commissioner, World Bank country director, and UNDP representative. This activity indicated the USAID's support in promoting evidence-based policy formulation and implementation for the agriculture sector in Nigeria, especially during the critical period after COVID-19.

(l) Multi-Stakeholders Dialog and Policy Forum

In August 2019, Dr. Bedru Balana, then Acting Program Leader for IFPRI's Nigeria Strategy Support Program (IFPRI-NSSP) participated at the 6th National Multi-stakeholders Forum and Policy Seminar organized by APRNet with support from the FTF Nigeria Agricultural Policy Project in Abuja, Nigeria. In an interview with the African Independent Television (AIT), Bedru highlighted the need

for policymakers to focus on boosting agricultural productivity for small-scale farmers to enhance food security in Nigeria. <https://youtu.be/XjDEtOJSQns>

(m) FMARD Extension Policy Document

The project provided technical and analytical support to the development of Extension Policy Manual. In recognition to this support, the Director of the Extension Department, Madam Babangida, on her letter dated the 20th of April 2019, stated that: *“On behalf of the Federal Ministry of Agriculture and Rural Development (FMARD) and most especially the Department of Agricultural Extension specially I would like to appreciate you for the immeasurable support the IFPRI team have been giving the Ministry. It has been wonderful working with IFPRI-Nigeria where you gave us full support in the development of the Policy-Implementation Manual for the Agricultural Extension Policy as well as the capacity building of FMARD officials on Agricultural Policies. It is heartwarming to mention that the Extension Policy and Policy Implementation Manual have been approved by the Honourable Minister of Agriculture. He has directed that both documents be prepared for him to present to the Federal Executive Council (FEC).”*



Figure 39. The Director, FDAE and the Project staff during training/dialog on the review of the Policy Implementation Manual for the Agricultural Extension Policy, February 2018

(n) Social Media and Agriculture - Enhancing Research Dissemination in Nigeria

On July 20, 2018, Wandieville Media <http://wandievillemedia.com>, in collaboration with the Nigeria Agricultural Policy project, trained 16 Nigerian Scholars (7 male and 9 female) from several institutions of higher learning across Nigeria on “Social Media and Agriculture”. The training covered several topics focusing on ‘enhancing agricultural research dissemination through social media’. The training strengthened the capacity of the participants to utilize social media for research, research dialogues and research dissemination among others. The training provided the Project Scholars heightened understanding of blogging etiquette and improved their management of the agricultural policy project blog. This training shows how the policy project collaborated with the private sector in Nigeria and set the stage for more sustainable capacity development.

(o) Towards Improving Organization Performance:

As part of efforts to strengthen projects’ M&E 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 M&E. With this in place, the project supported the council in tracking its performance in line with its set objectives in the plan.

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 OPI measurement tool in Fiscal Year (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. Furthermore, 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 and trained 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 collaborated with Service Compact (SERVICOM) Unit to achieve this important goal.

(p) USAID/Nigeria Multi-sectoral 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, Agreement Officer’s Representative (AOR), NAPP. The project continued to provide insights towards the development of the strategy.



Figure 40. USAID Senior Nutrition Advisor making presentation during the USAID/Nigeria and Partners Nutrition Interactive Session held in Abuja, February 2020.

(q) Towards Strengthening Nigeria’s Capacity to Innovate in the Agricultural Sector

As a measure towards driving innovation in Nigeria’s agricultural sector, in September 2019 in Abuja, the project introduced 30 senior officials of Nigeria’s FMARD to tools developed under the Capacity Development for Agriculture Innovation Systems (CDAIS) project. CDAIS is a global activity funded by USAID. Under the CDAIS project, researchers have developed tools that when implemented, would help players in agriculture working on Research Education, Extension (REE) or policy to effectively analyze themselves and be properly positioned to bring about innovations within their respective agricultural systems. Prior to this activity with FMARD, Dr. Suresh Babu, and Dr. Kwaw Andam, in collaboration with colleagues from World FISH, Wageningen University and other stakeholders, had already verified the tools with actors in Ibadan, Oyo State. Here, the tools were tested for the aquaculture sector in the states of South West Nigeria (Ekiti, Lagos, Ogun, Ondo, Osun and Oyo). The CDAIS toolkit has also been tested in Niger State, where it was applied against multiple value chains and food sectors in the state.

(r) Strengthening the Agricultural Policy Research Community: APRNet

The Project provided supports to the research and policy communications efforts of local agricultural policy networks. One of such networks was APRNet which had since justified the project’s funding support as indicated by its outputs below.

- Engaged over 7 States in agricultural and food policy dialogs 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.

ANNEX C: Number of Collaborative Teams Involving Local Partners

1	Climate Change and Agricultural Resilience in Nigeria	Dr. Laura Schmitt Olabisi, Dr. Saweda Liverpool-Tasie, Dr. Adeola Olajide (UI, Nigeria), Ms. Ekerebi Epiyaigha Charity (UI, Nigeria). Mr. Awoyemi (UI, Nigeria)
2	Exploring how the implications of climate change on cropping systems interact with the broader food system in Nigeria (particularly poultry and/or, fish and/or livestock production)	Dr. Saweda Liverpool-Tasie, Dr. Bolarian Omonona (UI, Nigeria), Mr. Wale Ogunleye (UI, Nigeria), Dr. Thomas Reardon, Awa Sanou and Samantha Padilla
3	Potential for the generation and diffusion of modern and improved seed varieties	Dr. Hiroyuki Takeshima, Dr. Abdulahi Mohammed Nasir (Agriculture Research Council of Nigeria)
4	Potential for expanding and improving irrigation systems	Dr. Hiroyuki Takeshima Ms. Adetola Adeoti (UI, Nigeria), Mr. Olufemi Popoola (UI, Nigeria)
5	Drivers of malnutrition in Northern Nigeria	Dr. Todd Benson, Dr. Mulubrhan Amare, Mr. Olusegun Fadare, Ms. Motunrayo Oyeyemi
6	Understanding the landscape for land access in Nigeria and its relation to food security within the realm of various global factors	Dr. Oyinkan Tasie, Dr. Evans Osabuohien (Covenant University, Nigeria); Mrs. Ngozi Adeleye (Covenant University); Ms. Amaka Nnaji, (UNN, Nigeria)
7	Land governance and investment - implications for sustainable and more effective land tenure administration systems	Dr. Hosaena Ghebru, Mr. Austen Okumo (University of Hohenhiem)
8	Macroeconomic factors' influence on agricultural policy implementation and outcomes	Dr. George Mavrotas, Dr. Patrick Hatzenbuehler, Professor Zakari Absulsalam (ABU), Mrs. Jamila Rame Mani (ABU), Dr. Makama Aliyu Saleh (ABU), Dr. Susan Ohen (UNICAL), Ms. Sarah Samuel (UNICAL)
9	Political Economy of Policymaking in Nigeria: Applying the Kaleidoscope Model	Dr. Danielle Resnick, Mr. Austen Okumo (University of Hohenhiem)
10	Estimating the economic costs of COVID-19 in Nigeria	Kwaw Andam, Hyacinth Edeh, Victor Oboh (Central Bank of Nigeria), Karl Pauw, & James Thurlow.

11	Poor dietary quality is Nigeria's key nutrition problem	Olivier Ecker, Comstock, A., Babatunde Rapheal O. (University of Ilorin) & Kwaw Andam.
12	The effects of COVID-19 policies on livelihoods and food security of smallholder farm households in Nigeria: Descriptive results from a phone survey	Bedru Balana, Motunrayo Oyeyemi, Adebayo Ogunniyi, Adetunji Fasoranti, Hyacinth Edeh, Joel Aiki (Kebbi State Ministry of Agriculture and Natural Resources) & Kwaw Andam
13	Cost and policy determinants of features of tractor markets in Nigeria: Case studies of tractor sellers in Kaduna state and tractor owners in Benue state	Patrick Hatzenbuehler, Hiroyuki Takeshima, Hyacinth Edeh, & Akeem Lawal (Ahmadu Bello University, Zaria).
14	Grain storage and marketplace characteristics in Kebbi State, Nigeria	Patrick Hatzenbuehler, George Mavrotas, Mohammed Abubakar Maikasawa (Kebbi State University of Science and Technology, Aliero), Abdulrahman Aliyu (Graduate Student, Kebbi State University of Science and Technology) & Amina Bashir
15	Overview of the evolution of agricultural mechanization in Nigeria	Hiroyuki Takeshima, & Akeem Lawal (Ahmadu Bello University, Zaria)
16	The enabling environment for informal food traders in Nigeria's secondary cities	Danielle Resnick, Bhavna Sivasubramanian, Idiong Christopher Idiong (University of Calabar), Michael Akindele Ojo and Likita Tanko (Federal University of Technology, Minna)
17	Federal government support for agriculture in Nigeria: Analysis with a public expenditure lens	Chinedum Nwoko, Amarachi Grace Ikejiofor, and Nchedo Theresa Nnaji (Policy Associates), Tewodaj Mogues
18	Nigeria's macroeconomic crisis explained	Channing Arndt, Chuku (AfDB), Adedeji Adeniran (Centre for the Study of Economies of Africa, Nigeria), Morakinyo Adetutu (Nottingham Trent University), Victor Ajayi (University of Cambridge), George Mavrotas, Chukwuka Onyekwena (Centre for the Study of Economies of Africa, Nigeria)
19	Strategies for restructuring the Agricultural Research Council of Nigeria: Process, opportunities, and lessons	E.O. Oyedipe, Olusanya Ajakaiye and K. Ajoni (ARCN) and Suresh Chandra Babu
20	The role of the locations of public sector varietal development activities on agricultural productivity: Evidence from northern Nigeria	Hiroyuki Takeshima, Abdullahi Mohammed Nasir (ARCN)

ANNEX D: National Advisory Committee

Name	Position
Prof. Olu Ajakaiye	Executive Chairman, African Center for Shared Development Capacity Building
Alhaji Abba Auchan	former Director of the Quality of Control Unit of the Federal Fertilizer Department, Ministry of Agriculture
Dr. Aminu Ibrahim	Convener, Nigerian ICT Forum of Higher Education Institutions
Ms. Lizzy N. Igbine	National President, Nigerian Women Agro Allied Farmers Association
Dr. Andrew Kwasari	Senior Technical Adviser to the Hon. Minister of Agriculture
Prof. Placid Njoku	former President, Nigerian Institute of Animal Science and currently the Deputy Governor, Imo State

ANNEX E: NAPP STAFF (Life of Project)

1	Adebayo Ogunniyi – Research Analyst 1, IFPRI
2	Adetunji Fasoranti – Monitoring and Evaluation Officer, IFPRI
3	Amina Bashir Yakubu – Senior Program Assistant, IFPRI
4	Awa Sanou – Graduate Student, MSU
5	Bedru Balana – Research Fellow, IFPRI
6	Bisola Oyediran – Communications Assistant, IFPRI
7	Danielle Resnick – Senior Research Fellow, IFPRI
8	Elisabeth Douglas – Communications Specialist, IFPRI
9	George Mavrotas – Country Program Leader, IFPRI
10	Hiroyuki Takeshima – Senior Research Fellow, IFPRI
11	Hosaena Ghebru – Research Fellow, IFPRI
12	Hyacinth Edeh – Country Program Manager, IFPRI
13	Ian Masias – Country Program Manager, IFPRI
14	John Mazunda – Country Program Manager, IFPRI
15	Kwabena Gyimah-Brempong – Country Program Leader, IFPRI
16	Kwaw Andam – Country Program Leader, IFPRI
17	Laura Schmitt Olabisi – Associate Professor, MSU
18	Margaret Adesugba – Senior Research Assistant, IFPRI
19	Medina Ayuba – Monitoring and Evaluation Specialist, IFPRI
20	Michael Olabisi – Assistant Professor, MSU
21	Mulubrhan Amare – Research Fellow, IFPRI
22	Olivier Ecker – Senior Research Fellow, IFPRI
23	Olusegun Fadare – Research Analyst I, IFPRI
24	Oluyemisi Kuku-Shittu – Associate Research Fellow, IFPRI
25	Oyeyemi Motunrayo, Research Analyst 1, IFPRI
26	Oyinkan Tasié – Assistant Professor, MSU
27	Samantha Padilla – Graduate Student, MSU
28	Saweda Liverpool-Tasié – Principle Investigator Associate Professor, MSU
29	Steve Longabaugh – Specialist, MSU
30	Suresh Babu – Senior Research Fellow, IFPRI
31	Theodora Adene – Administrative and Finance Officer, IFPRI
32	Thomas Reardon - Professor, MSU Distinguished Faculty
33	Todd Benson – Senior Research Fellow, IFPRI

ANNEX F: Final Version of Research Output by Type

Journals and Book Chapters

Date	Type	Journal (Book) Name	Title of DOCUMENT	Author(s)	URL	Category
2017	Journal	African Journal of Agricultural and Resource Economics	Evaluation of Nigerian agricultural production data	Hatzenbuehler Patrick L., Philip C. Abbott, Tahirou Abdoulaye	http://dx.doi.org/10.22004/ag.ec.on.258606	Ag. & Food systems transformation
2017	Journal	Environment Systems & Decisions 1-17.	Food security in Africa: a cross-scale, empirical investigation using structural equation modeling.	Riva CH Denny, Sandra T Marquart-Pyatt, Arika Ligmann-Zielinska, Laura Schmitt Olabisi, Louie Rivers, Jing Du, Lenis Saweda O Liverpool-Tasie.	https://link.springer.com/article/10.1007/s10669-017-9652-7	Nutrition, food security and food safety
2017	Journal	Nigerian Journal of Agricultural Economics 7(1):1-15	Growth and transformation of chicken and eggs value chains in Nigeria.	Liverpool-Tasie, L. S.O., B. Omonona, A. Sanou, W. Ogunleye, S. Padilla, and T. Reardon.	https://ageconsearch.umn.edu/record/259071/	Agricultural and Food systems transformation
2017	Journal	Agricultural Water Management 193, 251–264.	Invest in small-scale irrigated agriculture: A national assessment on potential to expand small-scale irrigation in Nigeria.	Xie H, L You & H Takeshima.	https://www.sciencedirect.com/science/article/abs/pii/S0378377417302846	Agricultural and Food systems transformation
2017	Journal	Environment Systems & Decisions 1-10.	Using participatory modeling processes to identify sources of climate risk in West Africa.	Schmitt Olabisi, L., Liverpool-Tasie, S., Rivers III, L., Ligmann-Zielinska, A., Du, J., Denny, R., Marquart-Pyatt, S., and Sidibé, A. 2017.	https://link.springer.com/article/10.1007/s10669-017-9653-6	Climate Change/Resilience

Date	Type	Journal (Book) Name	Title of DOCUMENT	Author(s)	URL	Category
2018	Journal	Sustainability. 1(11), 3100;	A Resilience Approach to Community-Scale Climate Adaptation.	Onyinye Prince Choko , Laura Schmitt Olabisi , Robert Ugochukwu Onyeneke, Stella Nwawulu Chiemela, Lenis Saweda O. Liverpool-Tasie, and Louie Rivers	https://www.mdpi.com/2071-1050/11/11/3100	Nutrition, food security and food safety
2018	Journal	African Journal of Food, Agriculture, Nutrition and Development	Analysis of the confluence between Nigeria's development strategies and its agricultural public expenditures	Mogues Tewodaj, Tolulope Olofinbiyi	https://www.ajol.info/index.php/ajfand/article/view/181628	Ag. & Food systems transformation
2018	Journal	Journal of Developing Areas 52(3):1-13.	Distributional effects of agricultural infrastructure in developing countries: Large irrigation dams and drought mitigation in Nigeria.	Takeshima, Hiroyuki.	https://muse.jhu.edu/article/677929/summary	Agricultural and Food systems transformation
2018	Journal	Environmental Development	Integrating environmental considerations in the agricultural policy process: Evidence from Nigeria	Babu, S. C., Mavrotas, G., & Prasai, N.	https://www.sciencedirect.com/science/article/abs/pii/S2211464517301562	Agricultural and Food systems transformation
2018	Journal	Environmental Development 25 (2018) 111–125	Integrating Environmental Considerations in the Agricultural Policy Process: Evidence from Nigeria	Suresh Babu, George Mavrotas, Nilam Prasai	https://www.sciencedirect.com/science/article/abs/pii/S2211464517301562	Climate Change/Resilience
2018	Journal	Food and Nutrition Bulletin.	Study of the determinants of chronic malnutrition in northern Nigeria: Quantitative evidence from the Nigeria demographic and health surveys.	Amare, Mulubrhan; Benson, Todd; Fadare, Olusegun; and Oyeyemi, Motunrayo.	https://doi.org/10.1177/0379572118768568	Nutrition, food security and food safety
2018	Journal	World Bank Economic Review.	Urbanization and child nutritional outcomes.	Amare, Mulubrhan; Arndt, Channing; Abay, Kibrom A.; and Benson, Todd.	https://doi.org/10.1093/wber/lhy015	Nutrition, food security and food safety

Date	Type	Journal (Book) Name	Title of DOCUMENT	Author(s)	URL	Category
2019	Book Chapter	Chapter 1 in AGRA. (2019)*.	Private Sector's Role in Agricultural Transformation in Africa: Overview	Reardon, T., T. Awokuse, S. Haggblade, T. Kapuya, S. Liverpool-Tasie, F. Meyer, B. Minten, D. Nyange, J. Rusike, D. Tschirley, R. Vos.	https://www.carr.msus.edu/resources/africa-agriculture-status-report-the-hidden-middle-a-quiet-revolution-in-the-private-sector-driving-agricultural-transformation-issue-7-nairobi-kenya-alliance-for-a-green-revolution-in-africa-agra	Agricultural and Food systems transformation
2019	Book Chapter	Chapter 2 in AGRA (2019)*	The Quiet Revolution in Agri-food Distribution (Wholesale, Logistics, Retail) in Sub-Saharan Africa.	Reardon, T., T. Awokuse, S. Haggblade, T. Kapuya, S. Liverpool-Tasie, F. Meyer, B. Minten, D. Nyange, J. Rusike, D. Tschirley, R. Vos. 2019.	https://www.carr.msus.edu/resources/africa-agriculture-status-report-the-hidden-middle-a-quiet-revolution-in-the-private-sector-driving-agricultural-transformation-issue-7-nairobi-kenya-alliance-for-a-green-revolution-in-africa-agra	Nutrition, food security and food safety
2019	Book Chapter	Chapter 3 in AGRA. (2019)	The Quiet Revolution and Emerging Modern Revolution in Agri-food Processing in Sub-Saharan Africa	Reardon, T., T. Awokuse, S. Haggblade, T. Kapuya, S. Liverpool-Tasie, F. Meyer, B. Minten, D. Nyange, J. Rusike, D. Tschirley, R. Vos	-	Agricultural and Food systems transformation
2019	Book chapter	Chapter 4 in AGRA. (2019)*	Avoid Hitting the Wall by Leveraging Investments of Midstream Heroes in African Food Value Chains	Meyer, F.H., T. Davids, T. Kapuya, P. Westhoff, T. Reardon.	-	Agricultural and Food systems transformation
2019	Book Chapter	Chapter 6 in AGRA. (2019)*	Agricultural Trade in Africa in an era of Food System Transformation: Policy Implications	Awokuse, T., T. Reardon, A.O. Salami, N.A. Mukasa, T. Tecele, F. Lange	-	Agricultural and Food systems transformation

Date	Type	Journal (Book) Name	Title of DOCUMENT	Author(s)	URL	Category
2019	Book Chapter	Chapter 9 in AGRA. (2019)	Africa's Changing Fertilizer Sector and the Role of the Private Sector	Liverpool-Tasie, LSO, I. Okuku, R. Harawa, T. Reardon, S. Wallace.		Agricultural and Food systems transformation
2019	Journal	Sustainability	A Resilience Approach to Community-Scale Climate Adaptation	Choko, O., Schmitt Olabisi, L., Onyeneke, R., Chimela, S.N., Liverpool-Tasie, L.S., & Rivers III, L.	https://www.mdpi.com/2071-1050/11/11/3100	Climate Change/Resilience
2019	Journal	Journal of Developing Areas	Distributional effects of agricultural infrastructure in developing countries: Large irrigation dams and drought mitigation in Nigeria.	Takeshima, Hiroyuki.	https://doi.org/10.1353/jda.2018.0032	Agricultural and Food systems transformation
2019	Journal	Agricultural Economics	Geography of plant breeding systems, agroclimatic similarity, and agricultural productivity: Evidence from Nigeria.	Takeshima, Hiroyuki.	https://doi.org/10.1111/agec.12466	Agricultural and Food systems transformation
2019	Journal	Food and Chemical Toxicology 129:458-65.	The occurrence and co-occurrence of aflatoxin and fumonisin along the maize value chain in southwest Nigeria	Liverpool-Tasie L, Saha Turna N, Ademola O, Obadina A, Wu F	https://www.sciencedirect.com/science/article/abs/pii/S0278691519302753	Nutrition, food security and food safety
2020	Journal	Journal of Agricultural Economics 72 (1), 158-179	Climate Risk and Technology Adoption in the Midstream of Crop Value Chains: Evidence from Nigerian Maize Traders	Liverpool-Tasie, L.S.O. and Parkhi, C. (2020).	https://doi.org/10.1111/1477-9552.12394	Climate Change/Resilience
2020	Journal	Food Policy.	Consumer ethnocentric behavior and food choices in developing countries: The case of Nigeria.	Kilders, V, Caputo, V. and Liverpool-Tasie, L.S.O.(2020).	https://doi.org/10.1016/j.foodpol.2020.101973	Nutrition, food security and food safety

Date	Type	Journal (Book) Name	Title of DOCUMENT	Author(s)	URL	Category
2020	Book Chapter	Chapter 4 in AGRA (2020)	Domestic food distribution systems: Linking farmers to growing urban markets in Africa.	Reardon, T., S. Haggblade, Liverpool-Tasie, L.S.O., Tschirley, D. Sauer, C. Vargas, C.	https://agra.org/the-agrf-virtual-summit-2020-a-call-to-action-to-use-africas-strength-its-agriculture-sector-to-build-back-stronger-from-covid-19/	Nutrition, food security and food safety
2020	Journal	Sustainability	Drivers and Constraints to the Adoption of Organic Leafy Vegetable Production in Nigeria: A Livelihood Approach.	Adebiyi, J. A., Olabisi, L. S., Richardson, R., Liverpool-Tasie, L. S. O., & Delate, K.	https://www.mdpi.com/2071-1050/12/1/96	Agricultural and Food systems transformation
2020	Journal	Agricultural Systems	Effects of agricultural mechanization on economies of scope in crop production in Nigeria	Takeshima Hiroyuki, Hatzenbuehler Patrick, L. Edeh Hyacinth O.	https://doi.org/10.1016/j.agsy.2019.102691	Ag. & Food systems transformation
2020	Journal	Law and Development Review	Engendering Constitutional Realization of Sustainable Development in Nigeria.	Oniemola, P., & Tasie, O.	https://doi.org/10.1515/ldr-2018-0079	Land governance and political economy issues
2020	Journal	European Review of Agricultural Economics	Growing condition variations and grain prices in Niger and Nigeria	Hatzenbuehler Patrick L., Abbott Philip C., Abdoulaye Tahirou	https://doi.org/10.1093/erae/jbz028	Ag. & Food systems transformation
2020	Journal	Journal of Environmental Management	Perceptions and exposure to climate events along agricultural value chains: Evidence from Nigeria	Liverpool-Tasie, L. S., Pummel, H., Tambo, J. A., Olabisi, L. S., & Osuntade, O	https://www.sciencedirect.com/science/article/pii/S0301479720303649	Climate Change/Resilience

Date	Type	Journal (Book) Name	Title of DOCUMENT	Author(s)	URL	Category
2020	Journal	Agriculture	Scenario Planning for Climate Adaptation in Agricultural Systems	Laura Schmitt Olabisi, Robert Ugochukwu Onyeneke, Onyinye Prince Choko, Stella Nwawulu Chiemela, Lenis Saweda O. Liverpool-Tasie, Anthonia Ifeyinwa Achike and Adedapo Ayo Aiyelaja	https://www.mdpi.com/2077-0472/10/7/274	Climate Change/Resilience
2020	Journal	Forthcoming in Nigerian Journal of Agricultural Economics	The profitability of inorganic fertilizer use in sorghum production: Evidence from Nigeria.	Omonona, B., Liverpool-Tasie, L. S.O., Sanou, A., & Ogunleye, W.	https://gatesopenresearch.org/documents/3-659	Agricultural and Food systems transformation
2020	Journal	Agribusiness.	Threshold investment and firm viability: Evidence from commercial poultry farms in Nigeria.	Sanou, A., Liverpool-Tasie, L.S.O. & Kerr, J. T	https://doi.org/10.1002/agr.21639	Agricultural and Food systems transformation
2021	Journal	Food Security	Combining household and price data to target food marketing interventions in Nigeria	Hatzenbuehler Patrick L., Mavrotas George	https://doi.org/10.1007/s12571-020-01127-7	Food and Nutrition Security
2021	Journal	Journal of Agricultural Economics	Demand for Imported versus Domestic Fish in Nigeria	LSO Liverpool-Tasie, A Sanou, T Reardon, B Belton	https://doi.org/10.1111/1477-9552.12423	Agricultural and Food systems transformation
2021	Journal	Applied Economic Perspectives and Policy	E-commerce's fast-tracking diffusion and adaptation in developing countries	T Reardon, B Belton, LSO Liverpool-Tasie, L Lu, CSR Nuthalapati, ...	https://doi.org/10.1002/aep.13160	Agricultural and Food systems transformation
2021	Journal	Applied Economic Perspectives and Policy	Essential non-essentials: COVID-19 policy missteps in Nigeria rooted in persistent myths about African food supply chains.	Liverpool-Tasie, L. S. O., Reardon, T., & Belton, B.	https://onlinelibrary.wiley.com/doi/full/10.1002/aep.13139	Nutrition, food security and food safety
2021	Journal	Applied Economic Perspectives and Policy	Food Consumption-Production Response to Agricultural Policy and Macroeconomic Change in Nigeria	Olivier Ecker, Patrick Hatzenbuehler	https://doi.org/10.1002/aep.13161	Food and Nutrition Security

Date	Type	Journal (Book) Name	Title of DOCUMENT	Author(s)	URL	Category
2021	Journal	Food Policy	Introducing safety labels in complex food supply chains: Evidence from a choice experiment in Nigeria.	Sanou, A. Liverpool-Tasie, L.S.O., Caputo, V., Kerr, J. and Reardon, T.	https://ageconse.arch.umn.edu/record/303608/	Nutrition, food security and food safety
2021	Journal	Food Control 121 (2021) 107620.	Mycotoxin reduction through lactic acid fermentation: Evidence from commercial ogi processors in southwest Nigeria	O Ademola, NS Turna, LSO Liverpool-Tasie, A Obadina, F Wu	https://doi.org/10.1016/j.foodcont.2020.107620	Nutrition, food security and food safety
2021	Journal	Climate Policy	Participatory modelling for climate change adaptation: the poultry sector in Nigeria	LS Olabisi, O Osuntade, LSO Liverpool-Tasie, J Adebisi	https://doi.org/10.1080/14693062.2021.1891019	Climate Change/Resilience
2021	Journal	Agricultural Economics	The Effects of Feed Costs and Increased Energy Needs on Broiler Farm Productivity: A Dynamic Programming Approach.	Padilla, S., Liverpool-Tasie, L.S.O., Meyers, R.	https://onlinelibrary.wiley.com/doi/10.1111/agec.12617	Ag. & Food systems transformation
2021	Journal	Agricultural Economics	Variability in agricultural productivity and rural household consumption inequality: Evidence from Nigeria and Uganda	Amare, Mulubrhan, Shiferaw Bekele, Takeshima Hiroyuki, Mavrotas George	https://onlinelibrary.wiley.com/doi/full/10.1111/agec.12604	Ag. & Food systems transformation
2021	Journal	Population and Development Review	Youth Migration Decisions in Sub-Saharan Africa: Satellite-Based Empirical Evidence from Nigeria	Amare, Mulubrhan, Kibrom A. Abay, Channing Arndt, and Bekele Shiferaw	https://doi.org/10.1111/padr.12383	Youth Issues

*AGRA. (2019). Africa Agriculture Status Report: The Hidden Middle: A Quiet Revolution in the Private Sector Driving Agricultural Transformation (Issue 7). Nairobi, Kenya: Alliance for a Green Revolution in Africa (AGRA). This link provides a pdf. Individual chapters are found within the pdf.

Research, Discussion and Working Papers

Date	TYPE	#	Title of DOCUMENT	Author(s)	URL	Category
2020	Discussion Paper	1956	Impacts of COVID-19 on food security: panel data evidence from Nigeria.	Amare, Mulubrhan, Kibrom A. Abay,	http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/133866/filename/133866.pdf/mapsto/pdf	COVID-19; Food and Nutrition Security
2020	Discussion Paper	1952	Public expenditures on agriculture at subnational-levels and household-level agricultural outcomes in Nigeria	Takeshima, H., Smart, J., Edeh, H., Oyeyemi, M., Balana, B., & Andam, K. S.	http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/133848/filename/133848.pdf/mapsto/pdf	Policy; Transforming Agriculture; Political Economy
2020	Discussion Paper	1951	National extension policy and state-level implementation: The case of Cross River State, Nigeria	Ogunniyi, A., Babu, S. C., Balana, B., & Andam, K. S.	http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/133780/filename/133780.pdf/mapsto/pdf	
2020	Discussion Paper	1942	National extension policy and state level implementation: The case of Niger State in Nigeria	Babu, S. C., Ogunniyi, A., Balana, B., & Andam, K. S.	https://www.ifpri.org/publication/national-extension-policy-and-state-level-implementation-case-niger-state-nigeria	
2020	Discussion Paper	1955	Effects of Public Expenditures on Agriculture at Subnational Levels on Households' Welfare and Economic Resilience in Nigeria	Hiroyuki Takeshima,	http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/133854/filename/133854.pdf/mapsto/pdf	Ag. Policy; Transforming Agriculture; Political Economy
2020	Discussion Paper	1979	The effects of COVID-19 policies on livelihoods and food security of smallholder farm households in Nigeria: Descriptive results from a phone survey	Bedru B. Balana, Motunrayo A. Oyeyemi,	http://ebrary.ifpri.org/utils/getdownloaditem/collection/p15738coll2/id/134179/filename/134179.pdf/mapsto/pdf	COVID-19; Food and Nutrition Security
2020	NAPP Research Paper	166	How Do Stakeholders Perceive the Quality of Agriculture and Food Security Policy Processes in Nigeria? Results From Two Rounds of Surveys,	Mywish K. Maredia, John Mazunda, Oyinkan Tasie, and Medinah Ayuba, 2020.	https://www.canr.msu.edu/resources/how-do-stakeholders-perceive-the-quality-of-agriculture-and-food-security-policy-processes-in-nigeria-results-from-two-rounds-of-surveys	Agricultural and Food systems transformation
2019	NAPP Research Paper	127	The Roles of Agroclimatic Similarity and Returns on Scale in the Demand for Mechanization: Insights from Northern Nigeria. University.	Hiroyuki Takeshima	https://www.canr.msu.edu/resources/roles-of-agroclimatic	Climate Change/Resilience

Date	TYPE	#	Title of DOCUMENT	Author(s)	URL	Category
2019	NAPP Research Paper	126	Role of Land Access in Youth Migration and Youth Employment Decisions.	Ghebru, Amare, Mavrotas, and Ogunniyi	https://www.canr.msu.edu/resources/role-of-land-access-in-youth-migration-and-youth-employment-decisions-empirical-evidence-from-rural-nigeria	Land governance and political economy issues
2019	NAPP Research Paper	124	Scrutinizing The Status Quo: Rural Transformation and Land Tenure Security in Nigeria.	Hosaena Ghebru and Fikirte Girmachew	https://www.canr.msu.edu/resources/scrutinizing-the-status-quo-rural-transformation-and-land-tenure-security-in-nigeria-1	Land governance and political economy issues
2019	NAPP Research Paper	123	The Role of the Locations of Public Sector Varietal Development Activities on Agricultural Productivity: Evidence from Northern Nigeria	Hiroyuki Takeshima and Abdullahi Mohammed Nasir	https://www.canr.msu.edu/resources/the-role-of-the-locations-of-public-sector-varietal-development-activities-on-agricultural-productivity-evidence-from-northern-nigeria	Agricultural and Food systems transformation
2018	NAPP Research Paper	115	The Rapid Transformation of the Fish Value Chain in Nigeria: Evidence from Kebbi State	Ayuba Gona, Gwoni Woji, Sunday Norbert, Hajar Muhammad, Lenis S. O. Liverpool-Tasie, Thomas Reardon, Ben Belton	https://www.canr.msu.edu/resources/the-rapid-transformation-of-the-fish-value-chain-in-nigeria-evidence-from-kebbi-state	Agricultural and Food systems transformation
2018	NAPP Research Paper	114	Climate Change Adaptation Among Poultry Farmers: Evidence from Nigeria	Lenis Saweda O. Liverpool-Tasie, Awa Sanou and Justice A. Tambo	https://www.canr.msu.edu/resources/climate-change-adaptation-among-poultry-farmers-evidence-from-nigeria-research-paper	Climate Change/Resilience
2018	NAPP Research Paper	113	The Occurrence and Co-Occurrence Of Aflatoxin and Fumonisin Along The Maize Value Chain in Southwest Nigeria	Liverpool-Tasie, Turna, Ademola, Obadina, Wu	https://www.canr.msu.edu/resources/the-occurrence-and-co-occurrence-of-aflatoxin-and-fumonisin-along-the-maize-value-chain-in-southwest-nigeria-1	Nutrition, food security and food safety
2018	NAPP Research Paper	112	The Rapid Transformation of the Fish Value Chain in Nigeria: Evidence From Niger State	Ebiloma, Olatunji, Matthias, Nmadu, Olorunsanya, Baba, Jirgi, Tsado, Liverpool-Tasie, and Reardon	https://www.canr.msu.edu/resources/the-rapid-transformation-of-the-fish-value-chain-in-nigeria-evidence-from-niger-state	Agricultural and Food systems transformation

Date	TYPE	#	Title of DOCUMENT	Author(s)	URL	Category
2018	NAPP Research Paper	97	System Dynamics Modelling of Maize Production under Future Climate Scenarios in Kaduna, Nigeria	Udita Sanga, Laura Schmitt Olabisi, Saweda Liverpool-Tasie	https://www.canr.msu.edu/resources/system-dynamics-modelling-of-maize-production-under-future-climate-scenarios-in-kaduna-nigeria	Climate Change/Resilience
2017	NAPP Research Paper	91	The Transformation of Value Chains in Africa: Evidence from the First Large Survey of Maize Traders in Nigeria	Saweda Liverpool-Tasie, Thomas Reardon, Awa Sanou, Wale Ogunleye, Iredele Ogunbayo, Bolarin T. Omonona	https://www.canr.msu.edu/resources/the-transformation-of-value-chains-in-africa-evidence-from-the-first-large-survey-of-maize-traders-in-nigeria-dec	Agricultural and Food systems transformation
2017	NAPP Research Paper	90	Food Safety in the Rapid Transformation of Food Systems in Africa: Aflatoxins along the Maize Value Chain in Nigeria	O. Ademola, S. Liverpool-Tasie and A. Obadin	https://www.canr.msu.edu/resources/food-safety-in-the-rapid-transformation-of-food-systems-in-africa-aflatoxins-along-the-maize-value	Nutrition, food security and food safety
2017	NAPP Research Paper	86	Macroeconomic Factor Influence on Agricultural Program Sustainability in Kaduna State, Nigeria	Patrick L. Hatzenbuehler and George Mavrotas	https://www.canr.msu.edu/resources/macroeconomic-factor-influence-on-agricultural-program-sustainability-in-kaduna-state-nigeria	
2017	NAPP Research Paper	85	Constraints for small-scale private irrigation systems in the North Central zone of Nigeria: Insights from a typology analysis and a case study	Hiroyuki Takeshima and Hyacinth Edeh	https://www.canr.msu.edu/resources/constraints-for-small-scale-private-irrigation-systems-in-the-north-central-zone-of-nigeria-insights-from-a-typology-analysis-and-a-case-study	Agricultural and Food systems transformation
2017	NAPP Research Paper	84	Subnational Variation in Policy Implementation: The Case of Nigerian Land Governance Reform	Danielle Resnick and Austen Okumo	https://www.canr.msu.edu/resources/subnational-variation-in-policy-implementation-the-case-of-nigerian-land-governance-reform	Land governance and political economy issues
2017	NAPP Research Paper	83	Study of the determinants of chronic malnutrition in Northern Nigeria: Quantitative evidence from the Nigeria Demographic and Health Surveys	Mulubrhan Amare, Todd Benson, Olusegun Fadare, and Motunrayo Oyeyemi	https://www.canr.msu.edu/resources/study-of-the-determinants-of-chronic-malnutrition-in-northern-nigeria-quantitative-evidence-from-the-nigeria-demographic-and-health-surveys	Nutrition, food security and food safety

Date	TYPE	#	Title of DOCUMENT	Author(s)	URL	Category
2017	NAPP Research Paper	82	Study of the Determinants of Chronic Malnutrition in Northern Nigeria: Qualitative Evidence from Kebbi and Bauchi States	Todd Benson, Mulubrhan Amare, Motunrayo Oyeyemi, and Olusegun Fadare	https://www.canr.msu.edu/resources/study-of-the-determinants-of-chronic-malnutrition-in-northern-nigeria-qualitative-evidence-from-kebbi-and-bauchi-states	Nutrition, food security and food safety
2017	NAPP Research Paper	74	The Quality of Agriculture and Food Security Policy Processes at the Federal and State Level in Nigeria: Results of a Stakeholder Survey	Mywish K. Maredia, John Mazunda, and Oyinkan Tasie.	https://www.canr.msu.edu/resources/the-quality-of-agriculture-and-food-security-policy-processes-at-the-federal-and-state-level-in-nigeria-results-of-a-stakeholder-survey	Nutrition, food security and food safety
2017	NAPP Research Paper	73	Scrutinizing the Status Quo: Rural Transformation and Land Tenure Security in Nigeria	Hosaena Ghebru and Fikirte Girmachew	https://www.canr.msu.edu/resources/scrutinizing-the-status-quo-rural-transformation-and-land-tenure-security-in-nigeria	Land governance and political economy issues
2017	NAPP Research Paper	59	Assessing the State of the Rice Milling Sector in Nigeria: The Role of Policy for Growth and Modernization	Michael Johnson and Ian Masias,	https://www.canr.msu.edu/resources/assessing-the-state-of-the-rice-milling-sector-in-nigeria-the-role-of-policy-for-growth-and-modernization	Agricultural and Food systems transformation
2017	NAPP Research Paper	58	Land Administration Service Delivery and its Challenges in Nigeria: A Case Study of Eight States	Hosaena Ghebru and Austen Okumo	https://www.canr.msu.edu/resources/land-administration-service-delivery-and-its-challenges-in-nigeria-a-case-study-of-eight-states	Land governance and political economy issues
2017	NAPP Research Paper	57	Institutional Limits to Land Governance Reform: Federal-State Dynamics in Nigeria	Danielle Resnick and Austen Okumo	https://www.canr.msu.edu/resources/institutional-limits-to-land-governance-reform-federal-state-dynamics-in-nigeria	Land governance and political economy issues
2017	NAPP Research Paper	56	Institutions and Public Agricultural Investments: A Qualitative Study of State and Local Government Spending in Nigeria	Tewodaj Mogues and Tolulope Olofinbiyi.	https://www.canr.msu.edu/resources/institutions-and-public-agricultural-investments-a-qualitative-study-of-state-and-local-government-spending-in-nigeria	Land governance and political economy issues

Date	TYPE	#	Title of DOCUMENT	Author(s)	URL	Category
2017	NAPP Research Paper	55	The Impact on Farm Household Welfare of Large Irrigation Dams and their Distribution	Hiroyuki Takeshima, Adetola Adeoti, and Oluwafemi Adebola Popoola,	https://www.canr.msu.edu/resources/the-impact-on-farm-household-welfare-of-large-irrigation-dams-and-their-distribution	Agricultural and Food systems transformation
2017	NAPP Research Paper	54	Who Influences Government Spending in Agriculture? The Roles of Public Actors in Subnational Funding	Tolulope Olofinbiyi and Tewodaj Mogues	https://www.canr.msu.edu/resources/who-influences-government-spending-in-agriculture-the-roles-of-public-actors-in-subnational-funding	Land governance and political economy issues
2017	NAPP Research Paper	53	Varietal Development and the Effectiveness of Sector Policies: The Case of Rice in Nigeria	Hiroyuki Takeshima and Alhassan Maji,	https://www.canr.msu.edu/resources/varietal-development-and-the-effectiveness-of-sector-policies-the-case-of-rice-in-nigeria	Agricultural and Food systems transformation
2017	NAPP Research Paper	42	Market Imperfections for Tractor Service Provision in Nigeria	Hiroyuki Takeshima	https://www.canr.msu.edu/resources/market-imperfections-for-tractor-service-provision-in-nigeria	Agricultural and Food systems transformation
2016	NAPP Research Paper	22	Growth and Transformation of Chicken & Eggs Value Chains in Nigeria Research Paper 22. September 2016	Saweda Liverpool-Tasie, Bolarin Omonona, Awa Sanou, Wale Ogunleye, Samantha Padilla, and Thomas Reardon	https://www.canr.msu.edu/resources/growth-and-transformation-of-chicken-eggs-value-chains-in-nigeria	Agricultural and Food systems transformation
2020	Working Paper	64	Credit constraints and agricultural technology adoption: Evidence from Nigeria	Bedru Balana, Motunrayo Oyeyemi,	http://ebrary.ifpri.org/utills/getdownloaditem/collection/p15738coll2/id/133937/filename/133937.pdf/mapsto/pdf	Ag. Policy; Transforming Agriculture
2020	Working Paper	66	The relative commercial orientation of smallholder farmers in Nigeria: Household and crop value-chain analyses	Benson Todd, Amare Mulubrhan and Ogunniyi Adebayo	http://ebrary.ifpri.org/utills/getdownloaditem/collection/p15738coll2/id/134163/filename/134163.pdf/mapsto/pdf	Transforming Agriculture
2020	Working Paper	63	Estimating the economic costs of COVID-19 in Nigeria	Andam, K. S., Edeh, H., Oboh, V., Pauw, K., & Thurlow, J.	http://ebrary.ifpri.org/utills/getdownloaditem/collection/p15738coll2/id/133846/filename/133846.pdf/mapsto/pdf	Agricultural and Food systems transformation

Policy Briefs

Date	#	Title	Author	URL	Category
2020	53	Do credit constraints affect Ag technology adoption? Evidence from Nigeria	Bedru Balana, Motunrayo Oyeyemi, Todd Benson	https://www.ifpri.org/publication/do-credit-constraints-affect-agricultural-technology-adoption-evidence-nigeria	Ag. Policy Transforming Agriculture
2020	119	Poor Dietary Quality is Nigeria's Key Nutrition Problem	Olivier Ecker, Andrew Comstock, Raphael Babatunde, and Kwaw Andam	https://www.canr.msu.edu/resources/poor-dietary-quality-is-nigeria-s-key-nutrition-problem	Nutrition, food security and food safety
2020	116	Assessing the Factors influencing Access to land for Urban Agriculture in Southeast Nigeria.	Chukwudi Charles Olumba, Jonathan Okechukwu Alimba and Oyinkan Tasié	https://www.canr.msu.edu/resources/assessing-the-factors-influencing-access-to-land-for-urban-agriculture-in-southeast-nigeria	Land governance and political economy issues
2019	99	Transforming Agriculture to Improve Food and Nutrition Security in Nigeria	Olivier Ecker and Adam Kennedy	https://www.canr.msu.edu/resources/transforming-agriculture-to-improve-food-and-nutrition-security-in-nigeria	Nutrition, food security and food safety
2019	98	Mechanization in Nigeria: What needs to be done to stimulate demand and support market growth?	Hiroyuki Takeshima and Adam Kennedy	https://www.canr.msu.edu/resources/mechanization-in-nigeria-what-needs-to-be-done-to-stimulate-demand-and-support-market-growth	Ag and Food systems transformation
2019	97	Nigeria Land Governance Reform: What needs to be done to stimulate demand and support market growth?	Hosaena Ghebru and Adam Kennedy	https://www.canr.msu.edu/resources/nigeria-land-governance-reform-what-needs-to-be-done-to-stimulate-demand-and-support-market-growth	Land governance and political economy issues
2019	93	Introducing Food Safety Labels in Complex Food Supply Chains: Evidence from a Choice Experiment in Nigeria	Sanou, Liverpool-Tasié, Vincenzina, Kerr	https://www.canr.msu.edu/resources/introducing-food-safety-labels-in-complex-food-supply-chains-evidence-from-a-choice-experiment-in-nigeria	Nutrition, food security and food safety
2019	92	Reducing Post-Harvest Losses in Tomatoes.	Hephzibah Onyeje Obekpa.	https://www.canr.msu.edu/resources/reducing-post-harvest-losses-in-tomatoes	Ag and Food systems transformation
2019	91	Climate Change Adaptation in the Nigerian Ag Sector.	Schmitt-Olabisi, Liverpool-Tasié, Onyeneke, Choko, Osuntade, Sanou, Singa, Chiemela	https://www.canr.msu.edu/resources/climate-change-adaptation-in-the-nigerian-agricultural-sector	Climate Change/Resilience

Date	#	Title	Author	URL	Category
2019	90	Demographic Factors and Nigeria's Dairy Production for the Year 2015	Onyinye Prince Choko	https://www.canr.msu.edu/resources/demographic-factors-and-nigeria-s-dairy-production-for-the-year-2015	Ag and Food systems transformation
2019	89	Curbing Post Harvest Losses: The Plight of Onion Farmers in Nigeria	Balaraba Abubakar Sule	https://www.canr.msu.edu/resources/curbing-post-harvest-losses-the-plight-of-onion-farmers-in-nigeria	Ag and Food systems transformation
2019	86	Agriculture, Land Access and Economic Growth in Africa: An Instrumental Variable Approach.	Chukwudi Charles Olumba.	https://www.canr.msu.edu/resources/agriculture-land-access-and-economic-growth-in-africa-an-instrumental-variable-approach	Land governance and political economy issues
2019	81	Community-Scale Climate Adaptation: Evidence from Ebonyi State, Nigeria.	Choko, Schmitt Olabisi, Onyeneke, Nwawulu Chiemela, Liverpool-Tasie and Rivers III	https://www.canr.msu.edu/resources/community-scale-climate-adaptation-evidence-from-ebonyi-state-nigeria	Climate Change/Resilience
2019	74	Use of Modern Inputs and Complementary Farm Practices in the Nigeria Rice Value Chain: Implications for Policy.	Osayanmon Wellington Osawe	https://www.canr.msu.edu/resources/use-of-modern-inputs-and-complementary-farm-practices-in-the-nigeria-rice-value-chain-implications-for-policy	Ag and Food systems transformation
2019	114	Entrepreneurial Skills and Job Preference among Agriculture Undergraduates: Evidence from Niger State, Nigeria.	Ayodeji Alexander Ajibola Coker and Balaraba Sule	https://www.canr.msu.edu/resources/entrepreneurial-skills-and-job-preference-among-agriculture-undergraduates-evidence-from-niger-state-nigeria	Ag and Food systems transformation
2019	102	Competitiveness and Comparative Advantage of Rice Production Systems: The Policy Analysis Matrix.	Sule, B. A., Crawford, E. and Coker, A. A. A.	https://www.canr.msu.edu/resources/competitiveness-and-comparative-advantage-of-rice-production-systems-the-policy-analysis-matrix-approach	Ag and Food systems transformation
2018	51	Synopsis: Transforming agriculture for improving food and nutrition security among Nigerian farm households	Olivier Ecker, Patrick Hatzenbuehler, and Kristi Mahrt	https://www.ifpri.org/publication/synopsis-transforming-agriculture-improving-food-and-nutrition-security-among-nigerian	Food and Nutrition Security
2018	85	The Nexus between Malnutrition and Ag Subsector Outputs in Nigeria.	Hephzibah Onyeje Obekpa	https://www.canr.msu.edu/resources/the-nexus-between-malnutrition-and-agricultural-subsector-outputs-in-nigeria-1	Nutrition, food security and food safety
2018	84	Farmers' Perception of Causes of Soil Degradation in Northern Taraba, in Taraba State of Nigeria.	Hegarty James Philip.	https://www.canr.msu.edu/resources/farmers-perception-of-causes-of-soil-degradation-in-northern-taraba-taraba-state-of-nigeria	Climate Change/Resilience

Date	#	Title	Author	URL	Category
2018	82	Nutrition and growing your own food: Dietary Diversity Evidence from North Central Nigeria	Hephzibah Onyeje Obekpa, Michael Olabisi	https://www.canr.msu.edu/resources/nutrition-and-growing-your-own-food-dietary-diversity-evidence-from-north-central-nigeria	Nutrition, food security and food safety
2018	70	The Co-Occurrence of Aflatoxin and Fumonisin along the Maize Value Chain in Southwest Nigeria.	Lenis Liverpool-Tasie, Nikita Saha Turna, Oluwatoyin Ademola Adewale Obadina, Felicia Wu.	https://www.canr.msu.edu/resources/the-co-occurrence-of-aflatoxin-and-fumonisin-along-the-maize-value-chain-in-southwest-nigeria-1	Nutrition, food security and food safety
2018	69	Changing the Fertilizer Conversation in Nigeria: The Need for Site Specific Soil-Crop Fertilizer Use.	Blessing Agada	https://www.canr.msu.edu/resources/changing-the-fertilizer-conversation-in-nigeria-the-need-for-site-specific-soil-crop-fertilizer-use	Ag and Food systems transformation
2018	68	Climate Change Adaptation among Poultry Farmers: Evidence from Nigeria.	Liverpool-Tasie, Sanou and Tambo	https://www.canr.msu.edu/resources/climate-change-adaptation-among-poultry-farmers-evidence-from-nigeria	Climate Change/Resilience
2018	67	Sustainable Ag Data Collection: Insights from the United States of America for Nigeria.	Ufedo M. Shaibu and Oluwatoyin M. Ademola	https://www.canr.msu.edu/resources/sustainable-agricultural-data-collection-insights-from-the-united-states-of-america-for-nigeria	Ag and Food systems transformation
2018	57	Demand for Imported-Frozen versus Domestic-Traditionally Processed Fish in Africa: Panel Data Evidence from Nigeria.	L.S.O. Liverpool-Tasie, A. Sanou, T. Reardon.	https://ageconsearch.umn.edu/record/270651/?ln=en	Ag and Food systems transformation
2018	56	The Transformation of Value Chains in Africa: Evidence from the First Large Survey of Maize Traders.	Saweda Liverpool-Tasie, Thomas Reardon, Awa Sanou, Wale Ogunleye, Iredele Ogunbayo, Bolarin T. Omonona.	https://www.canr.msu.edu/resources/the-transformation-of-value-chains-in-africa-evidence-from-the-first-large-survey-of-maize-traders	Ag and Food systems transformation
2018	46	Exploring Maize Production in Nigeria under Climate Change Using System Dynamics.	Laura Schmitt Olabisi, Saweda Liverpool-Tasie, Adeola Olajide.	https://www.canr.msu.edu/resources/exploring-maize-production-in-nigeria-under-climate-change-using-system-dynamics	Climate Change/Resilience
2018	40	Agglomeration of Agro Industries and its Potential to Boost Ag Productivity in Nigeria.	Aisha Lawal Ibrahim.	https://www.canr.msu.edu/resources/agglomeration-of-agro-industries-and-its-potential-to-boost-agricultural-productivity-in-nigeria	Ag and Food systems transformation
2017	28	Estimation of the Difference in Ag Yield between Male and Female Farmers in Nigeria.	Epiyaigha Ekerebi and Oluwafunmiso Olajide O. Adeola.	https://www.canr.msu.edu/resources/estimation-of-the-difference-in-agricultural-yield-between-male-and-female-farmers-in-nigeria	Ag and Food systems transformation

Date	#	Title	Author	URL	Category
2017	25	Growth & Transformation of Food Systems in Africa: Evidence from the Poultry Value Chain in Nigeria.	Saweda Liverpool-Tasie, Bolarin Omonona, Awa Sanou, Wale Ogunleye, Samantha Padilla, and Thomas Reardon.	https://www.canr.msu.edu/resources/growth-transformation-of-food-systems-in-africa-evidence-from-the-poultry-value-chain-in-nigeria	Ag and Food systems transformation
2017	19	Contrary to Conventional Wisdom, Smuggled Chicken Imports are not Holding Back Rapid Development of the Chicken Value Chain in Nigeria.	Wale O. Ogunleye, Awa Sanou, Lenis Saweda O. Liverpool-Tasie, and Thomas Reardon.	https://www.canr.msu.edu/resources/contrary-to-conventional-wisdom-smuggled-chicken-imports-are-not-holding-back-rapid-development-of-the-chicken-value-chain-in-nigeria	Ag and Food systems transformation

Communications

Research Output for Practitioners				
Brochure: Properly ferment and prepare your Ogi/Koko/Akamu/Pap!				
Languages:	English	Hausa	Igbo	Yoruba
Brochure: Pamphlet for Better Poultry Management Practices with Changes in Climate				
Languages:	English	Hausa	Igbo	Yoruba
Brochure: Guide on how to account for soil physical properties and fertilizer use in Maize based systems				
Languages:	English			
Brochure: Pamphlet on Urban Agriculture and Food Security in Nigeria				
Languages:	English			
Brochure: Reduction of Post-Harvest Losses in Onion Production				
Languages:	Nigeria			
Brochure: Dietary Diversity isn't far fetched				
Languages:	Nigeria			
Brochure: Reducing Postharvest Loss in Tomatoes				
Languages:	Nigeria			

Researchers

	Researchers	Institutions
1	A. Sidibe	
2	J. Li	
3	Toba Adeyeye	
4	Buba Wahe	ABU
5	Jamila Rame Mani	ABU
6	Makama Aliyu Saleh	ABU
7	Zakari Absulsalam	ABU
8	Abdulahi Mohammed Nasir	Agriculture Research Council of Nigeria
9	Justice A. Tambo	Centre for Agriculture and Biosciences International (CABI)
10	Evans Osabuohien	Covenant University
11	Ngozi Adeleye	Covenant University
12	Jennifer Iveren Abagyeh-Igbudu	Defense University Graduate Student
13	Kazeem Bello	Federal University of Agriculture, Abeokuta
14	J. H. Tsado	Federal University of Technology Minna
15	J.Jirgi	Federal University of Technology Minna
16	T. L. Matthias	Federal University of Technology Minna
17	Ebilom	Federal University of Technology Minna, Nigeria
18	Gwoni Woji	Fish farmer in Abuja,
19	Olorunsanya Nmadu	Ibrahim Badamasi Babangida University Lapai
20	R. F. Olatunji	Ibrahim Badamasi Babangida University Lapai
21	Bedru Balana	IFPRI
22	Danielle Resnick	IFPRI
23	George Mavrotas	IFPRI
24	Hiroyuki Takeshima	IFPRI

	Researchers	Institutions
25	Hosaena Ghebru	IFPRI
26	Hyacinth Edeh	IFPRI
27	Kwaw Andam	IFPRI
28	Motunrayo Oyeyemi	IFPRI
29	Mulubrhan Amare	IFPRI
30	Olivier Ecker	IFPRI
31	Olusegun Fadare	IFPRI
32	Patrick Hatzenbuehler	IFPRI
33	Suresh Babu	IFPRI
34	Todd Benson	IFPRI
35	Ayuba Gona	Kebbi State University of Science and Technology, Aliero
36	Hajaru Muhammad	Kebbi State University of Science and Technology, Aliero
37	Sunday Norbert	Kebbi State University of Science and Technology, Aliero
38	Arika Ligmann-Zielinska	MSU
39	Awa Sanou	MSU
40	Felicia Wu	MSU
41	Laura Schmitt Olabisi	MSU
42	Michael Olabisi	MSU
43	Nikita Saha Turna	MSU
44	Oyinkan Tasje	MSU
45	Samantha Padilla	MSU
46	Sandra T Marquart-Pyatt	MSU
47	Saweda Liverpool-Tasje	MSU
48	Thomas Reardon	MSU
49	Udita Sanga	MSU
50	Bukola Osuntade	Nigerian Faculty

	Researchers	Institutions
51	Roberty Onyeneke	Nigerian Faculty
52	Louie Rivers	North Carolina State University
53	Abubakar Balaraba Sule	Project Scholar
54	Agada Iveren Blessing	Project Scholar
55	Aisha Lawal Ibrahim	Project Scholar
56	Chukwudi C. Olumba	Project Scholar
57	Ekerebi Epiyaigha Charity	Project Scholar
58	Hegarty James Philip	Project Scholar
59	Hephzibah Onyeje Obekpa	Project Scholar
60	Oluwatoyin Ademola	Project Scholar
61	Onyinye Prince Choko	Project Scholar
62	Osayanmon Wellington Osawe	Project Scholar
63	Stella Nwawulu Chiemela	Project Scholar
64	Ufedo Monday Shaibu	Project Scholar
65	Wale Ogunleye	Project Scholar

Nigerian Agricultural Policy Project Scholars Status Update as at January 31, 2021

S/N	Name of Scholar	Gender	Institutional Affiliation during Participation	Academic Status during Participation	Home Institution Supervisor	Academic Status as at January 31, 2021	Institutional Affiliation as at January 31, 2021
1	Oluwatoyin Ademola	Female	Federal University of	MSc Candidate	Adewale Olusegun Obadina, Food Science	MSc. completed Food Science Federal	PhD Candidate, Food Science, Federal

S/N	Name of Scholar	Gender	Institutional Affiliation during Participation	Academic Status during Participation	Home Institution Supervisor	Academic Status as at January 31, 2021	Institutional Affiliation as at January 31, 2021
			Agriculture Abeokuta		Federal University of Agriculture Abeokuta	University of Agriculture Abeokuta	University of Technology Minna, Niger State
2	Blessing Agada	Female	Federal University of Agriculture Makurdi, Benue State	PhD Candidate	Agber Philip, Plant, Soil and Microbial Science, Federal University of Agriculture Makurdi, Benue State	PhD completed Plant, Soil and Microbial Science, Federal University of Agriculture Makurdi, Benue State	Lecturer, Plant, Soil and Microbial Science, Federal University of Agriculture, Benue State
3	Stella Chude-Chiemela	Female	University of Nigeria Nsukka, Enugu State	PhD Candidate	Ifeyinwa Achike, Agricultural Economics, University of Nigeria Nsukka, Enugu State	PhD Candidate Agricultural Economics, University of Nigeria Nsukka, Enugu State	Lecturer, Department of Agricultural Economics, University of Nigeria Nsukka, Enugu State
4	Onyinye Choko	Male	University of Port Harcourt	MSc Candidate	Adedapo, Aiyeloja, Forestry & Wildlife Management (Forest Economics & Management), University of Port Harcourt	MSc completed, Forestry & Wildlife Management (Forest Economics & Management), University of Port Harcourt	Lecturer, Department of Forestry & Wildlife Management, University of Port Harcourt
5	Charity E. Ekerebi	Female	University of Ibadan, Oyo State	MSc Candidate	Funso Olajide, Agricultural Economics, University of Ibadan	MSc completed Agricultural Economics, University of Ibadan	Ministry of Agriculture, Bayelsa State

S/N	Name of Scholar	Gender	Institutional Affiliation during Participation	Academic Status during Participation	Home Institution Supervisor	Academic Status as at January 31, 2021	Institutional Affiliation as at January 31, 2021
6	Philip Hegerty	Male	Federal University of Agriculture Makurdi, Benue State	MSc Candidate	Aminu Ali, Agricultural Economics, Federal University of Agriculture Makurdi, Benue State	MSc completed Agricultural Economics, Federal University of Agriculture Makurdi, Benue State	Federal University, Gashua, Yobe State
7	Aisha Ibrahim	Female	Ahmadu Bello University, Zaria, Kaduna State	MSc Candidate	Damisa Maiyaki. Agricultural Economics, Ahmadu Bello University, Zaria, Kaduna State	MSc completed Agricultural Economics, Ahmadu Bello University, Zaria, Kaduna State	PhD Candidate, Agricultural Economics, Ahmadu Bello University and Faculty Member, National Agricultural Extension and Research Liaison Services (NAERLS)
8	Hephzibah Obekpa	Female	Federal University of Agriculture Makurdi, Benue State	PhD Candidate	Abu Godwin, Agricultural Economics, Federal University of Agriculture Makurdi, Benue State	PhD completed Agricultural Economics, Federal University of Agriculture Makurdi, Benue State	Lecturer, Department of Agricultural Economics, Federal University of Agriculture, Benue State
9	Wale Ogunleye	Male	University of Ibadan, Oyo State	PhD Candidate	Omonona Bolarin Agricultural Economics, University of Ibadan	PhD Candidate, Agricultural Economics, University of Ibadan	Research Coordinator, Innovation for Poverty Action (IPA) & PhD Candidate University of Ibadan

S/N	Name of Scholar	Gender	Institutional Affiliation during Participation	Academic Status during Participation	Home Institution Supervisor	Academic Status as at January 31, 2021	Institutional Affiliation as at January 31, 2021
10	Charles Chukwudi Olumba	Male	Ebonyi State University	PhD Candidate	Jonathan Okechukwu Alimba, Agricultural Economics, Ebonyi State University	PhD completed Agricultural Economics, Ebonyi State University	Post-Doctoral Researcher, Ebonyi State University
11	Wellington Osawe	Male	University of Ibadan	PhD Candidate	Kabir Kayode Salman, Agricultural Economics, University of Ibadan	PhD completed Agricultural Economics, University of Ibadan	Post-Doctoral Researcher, National University of Ireland, Galway
12	Monday Shaibu	Male	Kogi State University	MSc Candidate	Ibrahim Mohammed Kebiru, Agricultural Economics, Kogi State University	MSc, completed Kogi State University	PhD Candidate, Kogi State University and Lecturer, Kogi State University, Anyimgba
13	Balaraba Sule	Female	Federal University of Technology, Minna	PhD Candidate	Ayodeji Coker, Federal University of Technology, Minna	PhD Candidate, Federal University of Technology, Minna	Lecturer, Ibrahim Badamosi Babangida University, Lapai, Minna State