

***Michigan State University***  
*in partnership with the*  
***International Food Policy Research Institute***

**Feed the Future Nigeria Agricultural Policy Project**

Associate Cooperative Agreement Number AID-620-LA-15-00001

**Year 5 Work Plan**

October 1, 2019 to June 30, 2020

10 September 2019  
Revised 30 September 2019

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## LIST OF ACRONYMS

ADAN	Association of Deans of Agriculture in Nigerian Universities
ADP	Agricultural Development Programs
ADWG	Agricultural Donor Working Group
AFCTA	African Continental Free Trade Agreement
APP	Agriculture Promotion Policy
APRNet	Agricultural Policy Research Network
ARCN	Agricultural Research Council of Nigeria
CAADP	Comprehensive Africa Agriculture Development Programme
CBO	Community Based Organization
DEC	Development Experience Clearinghouse
ERGP	Economic Recovery and Growth Plan
FCT	Federal Capital Territory
FMARD	Federal Ministry of Agriculture and Rural Development
FTF	Feed the Future
GFSS	Global Food Security Strategy
GON	Government of Nigeria
IFPRI	International Food Policy Research Institute
JSR	Joint Sector Review
KSUSTA	Kebbi State University of Science and Technology Aliero
LGA	Local Government Area
MSU	Michigan State University
N/A	Not Applicable
NAAE	Nigerian Association of Agricultural Economists
NABG	Nigeria Agribusiness Group
NAIP	National Agricultural Investment Plan
NAERLS	National Agricultural Extension and Research Liaison Services
NARI	National Agricultural Research Institute
NAPP	Nigeria Agricultural Policy Project
NGO	Non-Governmental Organization
USAID	United States Agency for International Development
USG	United States Government
YISA	Youth Initiative for Sustainable Agriculture

## EXECUTIVE SUMMARY

Year 5 finds the Feed the Future Nigeria Agricultural Policy Project (NAPP) well positioned to make further important contributions to the policy environment in Nigeria. In particular, in year 5, the Project will continue to focus on components 1 (capacity building) and 3 (dissemination and policy outreach), as requested by United States Agency for International Development (USAID), while also undertaking some targeted activities under component 2 (policy-driven research). It will build on lessons learned in year 3 and 4 to further strengthen the pool of Nigerian collaborators to carry on the training and research dissemination activities across the country. The Project will continue to use research outputs emanating from activities conducted in years 1-4 for its capacity building and dissemination efforts as well as in promoting policy dialogue related to agriculture and food security. In year 4, the Project significantly increased the number of capacity building courses organized in the Feed the Future (FTF) focus states and Federal Capital Territory (FCT). In year 5, the Project will continue to focus on enhancing the quality of the capacity building work at the national and state levels by giving special attention to aspects of mentoring in the overall capacity strengthening process to ensure its lasting impact beyond the Project's life.

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

Capacity building activities for Federal Ministry of Agriculture and Rural Development (FMARD) and its relevant agencies (e.g. Agricultural Research Council of Nigeria {ARCN}) are designed to support federal efforts to improve its capacity to plan and implement effective policy analyses and programs, as well as its capacity to demand and absorb policy research in FMARD policy processes. Capacity building activities from the Project in year 5 will build on the momentum gained in years 3 and 4.

At the state level, capacity building activities in year 5 will build on the success and lessons learned from the implementation of capacity building activities in years 3 and 4. Following close interactions with state ministries in year 4 and activities jointly organized with the ministries, the Project will continue to work with state ministries on specific capacity building initiatives including production of policy briefs on state-specific issues affecting agricultural policies and processes. Continuous mentoring of ministry staff and other stakeholders in the agricultural sector in the 7 FTF states as well as at the national level will be an important new element of capacity building initiatives. Such an approach will ensure that lessons learned from capacity building activities so far are being properly understood and applied by participants. Various capacity building courses will be delivered to Project stakeholders at national and state levels (please see relevant component section of the work plan for further details), building on courses offered by the Project in previous years and responding to the requests and needs of stakeholders.

In Kebbi State, 2 research seminar series (brown bag sessions) were held in year 4. These seminar series were carried out to promote interaction between the ministry and the State University on agriculture related issues. The first seminar was hosted by the Ministry of Agriculture while the second was hosted by the Kebbi State University of Science and Technology Aliero (KSUSTA). In year 5, the projection will hold monthly brown bag sessions hosted alternately by the Ministry and KSUSTA. While MSU faculty will support the process on behalf of the Project, these activities will be organized by the two institutions in Kebbi state.

The Project, in year 5 will enhance the use of research outputs in its capacity building activities so that stakeholders are widely aware of key agricultural issues and results emanating from Project research work so far. To further enhance sustainability of capacity building activities, the Project will

continue to work closely with associations and unions within the agricultural sector so that training courses and mentorship activities are provided to the relevant stakeholders. Finally, for academic training courses, the Project will work closely with the Association of Deans of Agriculture in Nigerian Universities (ADAN) to effectively deliver its mandate. A similar approach will be taken for capacity building activities to be delivered for media, NGOs, CBOs and other stakeholders in the agricultural sector. In year 4, Project Scholars began to offer training in R according to expressed stakeholder needs in their institutions and particular FTF focus states. They also conducted other trainings related to various expertise they gathered during the program. This will continue in year 5. As was done in year 4, the R training in year 5 will continue to be led primarily by Project Scholars with support from MSU.

### **Component 2: Policy-Driven Collaborative Research and Analysis**

This component supports the agricultural policy process with demand-driven research and policy analysis carried out in collaboration with researchers in Nigerian institutions. In year 4 there was no activity under this component, while the Project focused on components 1 and 3, undertaking training events and disseminating research carried out in years 1 to 3. During discussions with the Project management team and USAID in April 2019, a consensus was reached to revert to some of the key topics on which there is demand from the Government of Nigeria and USAID to provide policy-relevant research. The topics have been identified through the Project's policy dialogue during years 1 to 4, and continuing engagement with the Nigerian research community through the Agricultural Policy Research Network (APRNet), ADAN, and other bodies, and also reflect the recently-launched Global Food Security Strategy (GFSS) country plan for Nigeria. In year 5 the Project will conduct policy-driven research on the following topics:

1. Food and nutrition security
2. Constraints and opportunities in a key value chain (aquaculture)
3. Agricultural technology adoption and extension

These topics will build upon the foundation of datasets, research findings, and outputs from years 1 to 3, and will seek to update the existing knowledge and understanding of the key topics. Under the food and nutrition security topic, the Project will study the linkages between agricultural productivity and child nutritional outcomes, a pressing issue for Nigeria; the differences and drivers of rural-rural vs rural-urban youth migration; food consumption patterns and policy options for improving food and nutrition security; and the impact of smallholder farmer commercial orientation on rural economic development in Nigeria. In response to demand from state governments in Cross-River, Delta, and Ebonyi for policy support to improve the aquaculture sector, the Project will study the constraints and opportunities in the value chain, using interviews with key informants and secondary data. Thirdly, under the extension and agricultural technology topic, the Project will investigate the link between access to credit and agricultural technology adoption among smallholders. We will also measure the impacts of agricultural public investments (in agricultural technology) on selected indicators of broad development outcomes (e.g., agricultural and labor productivity, rural employment, private investments, nutrition and poverty reduction).

### **Component 3: Strengthening Evidence-Based Policy Processes and Promoting Impact**

The Policy Project seeks to systematically bring stakeholders together in component 3, Strengthening evidence-based policy processes and promoting impact, to share knowledge that can contribute to improved policy processes and promote impact. In year 5, the Project will continue to support policy dialogue and outreach through a continuous dissemination of Project research outputs from the var-

ious research activities undertaken so far. All dissemination activities will actively involve key stakeholders in the agricultural sector including FMARD, NGOs, CBOs, the private sector, various media, farmer groups, think tanks, and academia.

### **Federal level engagement**

Support to FMARD remains a key objective of the Project. The Project has continuously strengthened the good partnership with FMARD since inception. FMARD has a representative on the Policy Project's National Advisory Committee and the Project has regular meetings with FMARD senior management and the various senior advisors to the Honorable Minister of Agriculture, among others, regarding support to FMARD. In year 4 IFPRI, on behalf of the Project, played an active role advising FMARD on various agricultural policy issues. This will continue in year 5.

### **State level engagement**

In years 2 and 3, the Project supported the production of state-level policy notes on the priority crops of each FTF state, generated by staff of the state's Ministry of Agriculture. In line with the valuable contributions toward the generation of these notes, similar work continued in year 4, according to each state's agricultural priorities. The Project was instrumental in providing support to agricultural policy development in Ebonyi and Delta states, following their requests. Similar support to the states will continue in year 5.

### **Engagement with non-government stakeholders**

The Project has made significant efforts so far to engage with the private sector and non-governmental stakeholders nationally and in the 7 FTF focus states. These actors have included farmer groups, research networks, professional associations and the media. Following consultations with the media in Abuja and state-level media houses, media engagement played a key role in year 4 with particular focus on mentorship and strengthening dialogue in the overall policy process in Nigeria. This activity is expected to continue in year 5. In general, strategic messages and engagement will be designed around key themes and Project research findings. These themes (e.g. Climate change adaptation and food safety) will be the focal points of several engagement activities with different stakeholder groups in the FTF focus states.

## WORK PLAN COMPONENTS

The work that will be done in year 5 (October 2019 through June 30, 2020) is described in detail here, organized according to the three Project components mentioned in the executive summary.

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

This component focuses on developing national capacity to enhance skills, training, and the capacities of institutions to meet the demands for policy analysis by FMARD related to national food security and agricultural policy processes. In order to achieve this, the Project has delivered a number of training courses for FMARD, state ministries, academic institutions, various media and other key stakeholders over the first four years of its implementation. In year 5, the Project will provide several courses in the FTF focus states and FCT. The Project will enhance the quality of the capacity building work at the national and state levels by giving special attention to aspects of mentoring in the overall capacity strengthening process. Thus, a key component of capacity building activities in year 5 will be continuous mentorship and direct contributions to training activities by those already trained by the Project in the previous years. This will promote the sustainability of the capacity building activities and their lasting impact beyond the life of the Project.

The Project will also focus on collaboration with and guidance from various institutions to deliver on training courses. For academic training courses, the Project will work closely with ADAN to achieve effectively delivery. A similar approach will be taken for capacity building activities to be delivered for media, NGOs, CBOs and other stakeholders in the agricultural sector. The Project will intensify its mentoring activities for trainees in such a way as to ensure that participants are successfully applying knowledge and skills gained from capacity building activities. The Project plans to deliver 28 training courses (approximately 3 training courses per month and 9 per quarter in year 5) to various stakeholders in the FTF focus states and FCT in the agricultural sector ([Appendix A](#)).

#### Activity 1.1 Capacity Development and Strengthening at the Federal Level:

<b>1.1.1 Developing Capacity in the Agriculture Ministry (FMARD)</b>	
<b>Lead:</b> International Food Policy Research Institute (IFPRI)	<b>Location:</b> Federal Capital Territory
<b>Justification:</b> Capacity-building activities for FMARD and its related institutions are designed to support federal efforts to improve capacity in planning and implementation of effective policies and programs, with a focus on CAADP, NAIP, APP, AFCTA, and CAP-F, as well as the capacity of FMARD to demand and absorb policy research in its policy processes. Under this component, training courses and mentoring activities will also be extended to other government institutions. Along these lines, courses to be offered in year 5 include: <ul style="list-style-type: none"><li>• Policy and Strategy: Agriculture Promotion Policy (APP), Economic Recovery and Growth Plan (ERGP) and Comprehensive Africa Agriculture Development Programme (CAADP)</li><li>• Strengthening monitoring and evaluation within FMARD</li><li>• Extension policy reforms</li><li>• Ad hoc training courses demanded by FMARD</li></ul>	

<b>Approach:</b> A 2 to 5 day training course <sup>1</sup> will be organized for staff members from FMARD and other government institutions on each topic for a maximum of 25 participants. Interactive training will be conducted outside of the Ministry to eliminate distractions from full participation during training. Participants will include Ministry Directors and capacity building initiatives will also include mentoring of various FMARD staff.	
<b>Outputs:</b> Enhanced capacity of FMARD officials, including Directors.	<b>Outcomes:</b> <ul style="list-style-type: none"> <li>• Advancement of Government of Nigeria (GON) implementation of policies and programs such as CAADP, NAIP, APP, CAP-F.</li> </ul>
<b>Sub-activities [Timing]:</b>	<b>Matching indicators [Target]:</b>
Policy and Strategy: Agriculture Promotion Policy (APP), Economic Recovery and Growth Plan (ERGP), African Continental Free Trade Agreement (ACFTA) and Comprehensive Africa Agriculture Development Programme (CAADP) [Q1]	5. Number of individuals who have received United States Government (USG)-supported short-term technical training in agricultural sector productivity or food security policy analysis training. Standard FTF Indicator EG.3.2-1 [100]
Strengthening monitoring and evaluation within FMARD [Q1, Q2]	7. Number of government units or divisions that have received short-term training disaggregated by “New (receiving USG assistance for the first time)” and “Continuing (received USG assistance the previous year)” (Custom) [12]
Extension policy reforms [Q1, Q2]	
Ad hoc training courses demanded by FMARD [Q1, Q2, Q3]	
	Feedback on training courses and suggestions for future training courses

<b>1.1.2 Developing Capacity in the Research System (National Training Universities, Think Tanks, Research Institutions, CBOs, NGOs)</b>	
<b>Lead:</b> IFPRI	<b>Location:</b> 7 FTF focus states and University of Ibadan
<p><b>Justification:</b> Capacity building activities under this component are undertaken to strengthen the national capacity for greater evidence-based policy processes in agriculture by increasing the capacity of Nigerian policy analysts in universities, research institutions, CBOs, think tanks etc. to formulate and use widely available relevant evidence-based policy analysis to support GON’s implementation of policies and programs such as CAADP, NAIP, APP, AFCTA, and CAP-F.</p> <p>The Project will work closely with the Association of Deans of Agriculture in Nigerian Universities (ADAN) to determine where a particular course will be delivered in each of the 7 FTF states as well as Ibadan and FCT. It is worth noting that the Project will engage full time consultants in each of the 7 FTF states for mentoring activities and to actively and continuously follow up with participants following the training course in order to ensure that concepts learned during various capacity building activities are effectively incorporated. Such an approach in year 5 will ensure the sustainability of the capacity building activities delivered by the Project and their lasting impact beyond the Project’s life. To further promote sustainability of capacity building activities, it will be ensured that all faculty members identified by ADAN will also be involved in training other partic-</p>	

<sup>1</sup> The duration will depend on the nature of the course.



<p>ipants at their respective institutions following training by the Project, including CBOs, NGOs, associations and if applicable, think tanks. While ADAN will determine where particular courses will be delivered in the FTF states, the Project will oversee the quality of such interventions.</p>	
<p><b>Methodology/Approach:</b> A 2-10 day<sup>2</sup> training course will be organized for university, research institutions, CBOs, think tanks and NGOs participants, for a maximum of 25 participants.</p>	
<p><b>Outputs:</b> 1. Enhanced capacity of officials of universities, research institutions, CBOs, think tanks and NGOs.</p>	<p><b>Outcomes:</b> • Enhanced ability of universities, research institutions, CBOs, think tanks, and NGOs.</p>
<p><b>Sub-activities [Timing]:</b></p>	<p><b>Matching indicators [Target]:</b></p>
<p>Results-based monitoring and evaluation [Quarterly]</p>	<p>5. Number of individuals who have received USG-supported short-term technical training in agricultural sector productivity or food security policy analysis training. Standard FTF Indicator EG.3.2-1 [300]</p>
<p>Policy analysis using R (training course to be facilitated by Project Scholars following their return from MSU [Q1, Q2])</p>	
<p>Ad-hoc training courses demanded by other universities from FtF focused states [Quarterly]</p>	
<p>Feedback on training courses and suggestions for future training courses</p>	

**Activity 1.2 Capacity Development and Strengthening at the State Level**

<p><b>1.2.1 Policy analysis, group dynamics, and issues in agriculture and development training/workshop for ministry staff and academics in the 7 FTF states and policy analysis for priority areas</b></p>	
<p><b>Lead:</b> IFPRI</p>	<p><b>Location:</b> 7 FTF states</p>
<p><b>Justification:</b> The ability of the Nigerian states to collect or extract and critically review agriculture related data as well as link the information from such data to policy and programs is key for policy related discussions. These skills will be strengthened by advanced training and mentoring of faculty and state staff to produce policy briefs on priority agricultural issues in the respective states that support GON agricultural priorities. Following Project training on the above in years 2, 3, and 4 and the production of policy briefs following the trainings, all 7 states have requested for more of such documents to be generated for other crops (the FTF focus value chains are aquaculture, cowpea, maize, rice, and soybean) and agricultural related issues. This proposed training activity will be undertaken in the 7 FTF states in year 5. In addition to the policy analysis trainings, Agriculture Development Programs (ADPs) in the 7 FTF states have requested for group dynamic trainings to better serve smallholder farmers in their states.</p>	
<p><b>Methodology/Approach:</b> The Project will work closely with staff from state ministries of agriculture and ADPs and train them on the analysis of data and production of policy briefs that are related to pertinent agriculture issues at the state level. To encourage evidence-based contribution to policy, academics from the selected states will also be involved in the process. To further enhance capacity building of Nigerians, this activity will also involve students that have participated in the Visiting Scholars Program at MSU. In particular, the scholars will provide training on statistical analysis using R, a free and open source software. Faculty at MSU will provide intellectual</p>	

<sup>2</sup> The duration will depend on the nature of the course.

support to the scholars for the design and administration of the training while the logistics cost for the training will be provided by the Project through IFPRI.	
<b>Outputs:</b> 1. Increased number of state and local government area (LGA) officials with enhanced understanding.	<b>Outcomes:</b> <ul style="list-style-type: none"> <li>Significantly strengthened engagement of selected states and LGAs with GON and other stakeholders.</li> </ul>
<b>Sub-activities [Timing]:</b> Training for ministry staff, including ministry directors and academics in the 7 FTF states on policies and strategies, including writing policy briefs [Quarterly]	<b>Matching indicators [Target]:</b> 5. Number of individuals who have received USG supported short-term technical training in agricultural sector productivity or food security policy analysis training. [150]
Building capacity for developing and implementing extension policy reforms [Q1, Q2]	7. Number of government units or divisions that have received short-term training disaggregated by New (receiving USG assistance for the first time) and Continuing (received USG assistance the previous year). [5 continuing]
Ad hoc training courses demanded by the state ministries [Quarterly]	Number of agriculture policy communications developed and/or written for stakeholder consumption disaggregated by type of policy communication: developed or written [7 policy briefs in total]

**Activity 1.3: Nigerian Graduate Student Capacity Building**

<b>1.3.1 Project Scholars</b>	
<b>Lead:</b> MSU	<b>Location:</b> study based in MSU, activities in all FtF states
<p><b>Justification:</b> One of the Project’s goals is to train young Nigerian scholars to support the provision of evidence-based policy recommendations using rigorous analytical methods. To achieve this, the Project Scholars program brings young Nigerian scholars and their advisors to MSU. Over the first four years of the Project, the potential of the scholars’ program to yield benefits beyond the scholars; to their departments, institutions and Nigeria more broadly has been demonstrated. The 13 scholars who have gone through the Scholars Program have trained over 1,000 Nigerians on data analysis and research methods. In year 4 alone, the Project Scholars who had been trained and mentored on the software “R” for data analysis were able to train over 100 people on “R”. The experience executing the program has revealed that sustainable capacity development requires more than taking classes and engagement with MSU faculty while at MSU. Sustained engagement with scholars at multiple levels has been necessary to really develop the proficiency and ability of scholars to conduct high quality research and/or to train others (and share more generally, what they have learned while at MSU). The Project has observed that research and analytical proficiency of scholars increase significantly through their engagement with senior researchers on the various steps of the Policy Project’s collaborative research and analysis. This has proven to further strengthen their writing skills and thought processes, complementing the formal training received through classes. So far, these young scholars have also been mentored to produce over 30 research publications. In year 4, the Project engaged scholars in several of its dissemination activities in the</p>	

<p>FCT and FTF focus states. All these experiences are key for the development of the scholars' ability to design and conduct high quality research and train others on the same. They also support the expansion of Project stakeholder engagement.</p>	
<p><b>Approach:</b> The Policy Project's Scholars Program in year 5 proposes to integrate the Scholars' Program further into the Project's activities (particularly dissemination of research findings and engagement with stakeholders) to provide a more thorough and sustainable capacity building experience. In year 5, the 3 remaining Nigerian PhD candidates and their research supervisors will complete their residence in MSU by December 2019. Since the Scholars' Program is designed to provide support for research, the program will engage the scholars in research activities, particularly the analysis of data already collected by the Project in previous years and/or stakeholder engagement activities planned to disseminate the findings of Project research to various stakeholders including government, farmers and researchers.</p>	
<p><b>Outputs:</b></p> <ol style="list-style-type: none"> <li>1. Scholars will give presentations and produce papers on agricultural issues in Nigeria.</li> <li>2. Research Supervisors will present at MSU and their home institutions and build new relationships to further their research/academic activities.</li> <li>3. PhD scholars will provide 6 in-country R training sessions.</li> <li>4. Scholars will write communication pieces.</li> <li>5. Scholars will facilitate article writing trainings.</li> <li>6. A Project Scholar to participate in conducting Aflatoxin training with her advisor.</li> <li>7. Some scholars will work with the climate change adaptation team in engagement and dissemination activities in Ebonyi State.</li> </ol>	<p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Scholars and their institutions will be strengthened in research design, analysis, and writing, as well as in the dissemination of knowledge and skills.</li> <li>• Research Supervisors will return to strengthen their institutions by dialoging with faculty and students within their department and university, as well as the university administration.</li> <li>• PhD scholars will be enabled to provide R training and will be able to continue providing this training after the Project is completed.</li> <li>• More Nigerian researchers will be equipped to use the R statistical package (which is free and open source) as well as STATA.</li> <li>• Scholars will assist with on-line journal uploading onto AgEcon Search.</li> <li>• Scholars will work with media in selected states to improve media programs on agriculture.</li> </ul>
<p><b>Sub-activities [Timing]:</b></p>	<p><b>Matching indicators [Target]:</b></p>
<p>1. Training on data analysis using R (to be extended to other Nigerian graduate students and faculty in FTF states) [Q1] Note: this involves universities only.</p>	<p>4. Number of individuals who have received USG supported short-term technical training in agricultural sector productivity or food security policy analysis training. [30]</p>
<p>2. R training offered by PhD scholars [Q1-Q3]</p>	<p>4. Number of individuals who have received USG supported short-term technical training in agricultural sector productivity or food security policy analysis training. [40]</p>
<p>3. Graduate students come for training at MSU [Q1]</p>	<p>6. Number of individuals who have received USG supported degree-granting agricultural sector productivity or food security training. [3]</p>

4. Nigerian Graduate student presentations at MSU [Q1]	2. Number of participants attending Project organized research and policy events. [36]
5. Scholars will facilitate article writing trainings [Q1-Q3]	4. Number of individuals who have received USG supported short-term technical training in agricultural sector productivity or food security policy analysis training. [180]
6. Nigerian professor's presentations at MSU [Q1]	2. Number of participants attending Project organized research and policy events. Custom indicator [15].
7. Nigerian professors' meetings with various faculty and visits to relevant units at MSU [Q1]	N/A.
8. Blog used by scholars to increase dissemination of best practices [Annual]	
9. Each scholar will produce 3 Project highlights [Q1]	8. Number of agriculture policy communications developed and/or written for stakeholder consumption. (9)
10. Each Research Supervisor will produce a Project highlight [Q1-Q2]	8. Number of agriculture policy communications developed and/or written for stakeholder consumption. (3)
11. "Earlier or Previous" scholars give presentations in Nigeria at dissemination fora [Q1, Q2, Q3]	2. Number of participants attending Project organized research and policy events. [30]
12. Scholars engaged in Project dissemination activities for the findings coming out of the climate change and food systems research conducted in years 1-4. This involves generating appropriate communication pieces [Q2, Q3]	8. Number of agriculture policy communications developed and/or written for stakeholder consumption. (15)
13. Scholars engaged in analyzing the community level climate change adaptation data and in the write up [Q1-Q2]	8. Number of agriculture policy communications developed and/or written for stakeholder consumption. (1)
14. Dissemination and training activity planned by the aflatoxin team led by Project Scholar Ms. Toyin and her advisor in all 7 states [Q1-Q3]	2. Number of participants attending Project organized research and policy events. [210]  4. Number of individuals who have received USG supported short-term technical training in agricultural sector productivity or food security policy analysis training. [70]  8. Number of agriculture policy communications developed and/or written for stakeholder consumption. [3]

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

<b>1.4.1 Media engagement and Training at FCT and the State Level (Agricultural Communication and Grant Writing)</b>	
<b>Lead:</b> IFPRI	<b>Location:</b> FTF focus states & Abuja
<p><b>Justification:</b> Media practitioners in Nigeria acknowledge their limitations in adequate agricultural reportage. Lack of necessary skill sets to deliver on agricultural communication was identified during the interactive sessions with the media in year 3 of Project implementation. Agricultural communication requires specialized skillsets and until these skillsets are acquired, the media’s ability to effectively enhance agricultural reportage would be limited. Hence, it is necessary to strengthen the media’s capacity in this regard. The Project also learned during the interactive sessions in year 3 that journalists wish to have an in-depth understanding of the agricultural issues that they are assigned to. This is particularly important where journalists are assigned to cover an agricultural story but do not have the required agricultural background to successfully report on their assignment. In view of this, the Project will incorporate into the media trainings, research work undertaken by Project researchers since inception of the Project in year 1 to enhance journalists’ understanding of agricultural issues in Nigeria.</p>	
<p><b>Methodology/Approach:</b> The Project will continue the approach used successfully in year 4 to conduct a media training on effective agricultural and policy communication for media representatives in Abuja as well as a media training for media representatives in each of the 7 FTF states. With the help of the Project’s Policy Communications Unit, a training course will be organized in Abuja to be attended by selected media representatives from the 7 FTF states. In addition, experts from the Communications and Public Affairs (CPA) Division at IFPRI headquarters in Washington DC, who are very experienced on agriculture and media issues, will also help to facilitate and provide support in some of the training courses. In collaboration with the relevant state chapters of the Nigerian Union of Journalism, the Nigerian Guild of Editors and the Newspaper Proprietors Association of Nigeria, and the Agriculture Correspondence Association of Nigeria, participants in the FTF focus states will be selected to receive the training. Following training courses delivered in the 7 FTF states in years 3 and 4, the major objective of the Project in year 5 is to ensure that journalists are incorporating knowledge gained from the training courses that they attended. The Project will work closely with journalists through continuous follow up mentorship activities to ensure that lessons learned are incorporated. An important element of Project training and interaction in year 5 will be the use of Project research outputs emanating from the first three years of Project implementation. Such an approach will enhance the journalists’ understanding of various issues of relevance to the Nigerian agricultural sector.</p>	
<p><b>Outputs:</b></p> <ol style="list-style-type: none"> <li>1. Number of training sessions per focus states and FCT.</li> <li>2. Number of media personnel trained per focus states and FCT.</li> </ol>	<p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Improved ability of the media to communicate agricultural information (including output from scientific research) to various stakeholders in the policy process.</li> <li>• Improved ability of faculty of media to develop and deliver courses on agricultural communication for media.</li> <li>• Improved ability of media personnel to write grants to generate funds to enable them to more effectively gather and present accurate</li> </ul>

	information (including output from research) to feed into their media productions.
<b>Sub-activities [Timing]:</b>	<b>Matching indicators [Target]:</b>
1. Revision of course content [Q1]	N/A
2. Identification and selection of course participants across the FTF focus states and Abuja [Q1]	
3. Delivery of course in Abuja [Q2]	5. Number of individuals who have received USG supported short-term technical training in agricultural sector productivity or food security policy analysis training. [50]
4. Follow Up [Q3]	N/A

### Component 2: Policy-Driven Collaborative Research and Analysis

This component supports the agricultural policy process with demand-driven research and policy analysis carried out in collaboration with researchers in Nigerian institutions. These analyses promote Nigeria’s path to sustainable self-reliance and enable the component to enhance capacity development activities by collaborating with Nigeria’s agricultural policy research network to conduct work on key topics. In year 4, the component was on a hiatus as the Project focused on components 1 and 3, undertaking training events and disseminating research carried out in years 1 to 3. During discussions with the Project management team and USAID in April 2019, a consensus was reached to revert to and build upon the work on some of the key topics on which there is demand from the government (state or federal) and USAID to provide policy support through research. The goal is to further strengthen the Project contributions towards evidence-based decision-making in agriculture and rural development policy.

Following these discussions, during Q3 and Q4 of year 4, the Project engaged in policy discussions with the FMARD, FtF states, and other stakeholders during the dissemination events under component 3 to identify the key priorities for further research and analysis. These consultations included a policy workshop organized by the Agricultural Policy Research Network (APRNet) on August 29, 2019, and subsequent discussions with USAID. High on the list, given GON/USAID policy and programmatic priorities, are nutrition, agricultural productivity, and competitiveness of value chains. As such, in year 5 the Project proposes to build upon the research conducted in years 1-3 to undertake analytical work on the following topics:

1. Food and nutrition security
2. Constraints and opportunities in a key value chain (aquaculture)
3. Agricultural technology adoption and extension

#### Activity 2.1 Food and Nutrition Security

<b>2.1.1 The Impact of Agricultural Productivity Changes on Child Nutritional Outcomes</b>	
<b>Lead:</b> IFPRI (Mulubrhan Amare, Bedru Balana et al.)	<b>Location:</b> Nationwide and FtF states

<p>Local collaborator: Prof. Christogonus K. Daudu, Assistant Director, Research, Planning, Monitoring &amp; Evaluation, National Agricultural Extension Research &amp; Liaison Services, Ahmadu Bello University, P.M.B. 1067, Zaria Nigeria.</p>	
<p><b>Justification:</b> This study builds upon the previous studies completed in years 1 to 3 on determinants of child undernutrition in Northern Nigeria, urbanization and child nutritional outcomes, and urbanization and obesity in women. Poverty, food insecurity, limited knowledge about food choices, feeding habits and behaviors, and healthcare-seeking practices are the key factors contributing significantly to negative nutrition outcomes in Nigeria. In this study, we will examine agricultural productivity change and child nutritional outcomes linkages.</p> <p>Agricultural research and development interventions focused on farm intensification and modernization of market channels for agricultural products can lead to agricultural productivity growth and thereby both reduce poverty and meet growing demands for food. Improving the productivity, profitability, and sustainability of smallholder agriculture is therefore considered the key pathway out of poverty for many rural households. In this regard, smallholder-based inclusive agricultural productivity growth will play a key role not only for poverty reduction but also for large scale structural transformation. A salient feature of such transformation is an increased level of specialization and commercialization into high value crops by smallholders. Specialization and commercialization should, <i>ceteris paribus</i>, increase overall productivity, create marketing opportunities and provide additional income, thereby helping smallholders move out of poverty traps and afford a more diversified diet and increasing households' food and nutrition security. However, there are possible mechanisms through which agricultural productivity growth may not improve child nutritional outcomes. First, increased level of commercialization into high value crops could occur at the expense of growing diverse crops, which decreases levels of household food self-sufficiency. Second, diversification into high-value crops may change household consumption behavior such that households may tend to sell the cash crops rather than consume them at home.</p>	
<p><b>Methodology/Approach:</b> This study will examine a key issue, not well explored in the literature: agricultural productivity change and child nutritional outcome linkages in the presence of unobserved heterogeneity, which could cause an endogeneity problem. This paper aims to use LSMS panel data from Nigeria. We will merge the panel data with the satellite-based precipitation and temperature data to deal with such unobserved heterogeneity and exploit exogenous variation in rainfall and temperature during the growing season to proxy for exogenous changes in agricultural productivity growth. It will therefore use exogenous variation in rainfall and temperature as an instrument for agricultural productivity growth. The paper will also examine the distributional implication of agricultural productivity change by estimating its impact on child nutritional outcomes by rural versus urban and geographical zones, with important implications for designing policies intended to improve agricultural productivity that can reduce child undernutrition.</p>	
<p><b>Outputs:</b></p> <ol style="list-style-type: none"> <li>1. Working paper.</li> <li>2. Policy Brief.</li> <li>3. Journal paper.</li> </ol>	<p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>• The linkage between agricultural productivity and child nutrition is well established.</li> </ul>

	<ul style="list-style-type: none"> <li>• Policy towards improving agricultural productivity and child nutrition is influenced.</li> </ul>
<b>Sub-activities [Timing]:</b>	<b>Matching indicators [Target]:</b>
<ul style="list-style-type: none"> <li>• Q1: Conceptual framework finalized, data cleaning and collection of secondary data completed, review of relevant literature and methodology finalized, preliminary data analysis completed</li> <li>• Q2: Draft write-up of results completed, preliminary data analysis completed, draft write-up of results completed</li> <li>• Q3: Working paper completed, policy note completed, journal paper drafted/submitted</li> </ul>	N/A

<b>2.1.2 Differences and drivers of rural-rural vs rural-urban youth migration</b>	
<p><b>Lead:</b> IFPRI [Mulubrhan Amare, Channing Arndt et al]</p> <p>Local collaborator: Prof. Christogonus K. Daudu, Assistant Director, Research, Planning, Monitoring &amp; Evaluation, National Agricultural Extension Research &amp; Liaison Services, Ahmadu Bello University, P.M.B. 1067, Zaria Nigeria.</p>	<p><b>Location:</b></p> <p>Both nationwide and the FtF states</p>



**Justification:** Migration is often considered as an intricate and multidimensional process involving, among other factors, initial locations and potential places of destination. There are longstanding concerns that migration could lead to increased unemployment, affect provision of public services, and potentially contribute to political unrest in destination zones. This is particularly the case where urbanization has been accompanied by the rapid development of unplanned settlements with high concentrations of poor people, and policies to curb migration may subsequently exacerbate poverty. Urbanization trends in many African countries are not accompanied by the required levels of structural and political transformations leading to proliferation of slums and informal sectors. On the other hand, in rural areas, rural-urban migration of labor force may affect the agricultural sector due to the shift in the allocation of labor force from farm to non-farm activities.

Most migration that is taking place in African countries is dynamic and the direction and the nature of movement may involve different forms depending on local social, economic and political conditions: rural-urban; rural-rural; urban-urban; intra-regional and inter-regional. Nevertheless, irrespective of the type of movement, many African youth want to move to urban areas where they perceive greater opportunities to improve livelihood outcomes. As a consequence, urban areas in Africa are becoming enormously congested and overstrained, placing pressure on inadequate infrastructures, sanitation and water systems, health facilities, and schools. In absolute numbers, youth unemployment turns out to be more prevalent in urban areas than rural areas in Africa. Because of this, urban unemployment remains one of the major challenges of sub-Saharan Africa countries.

Ideally, policy makers would be keen to divert rural-urban migration to more rural-rural migration. But there could be incentives, constraints and limitations in such migration patterns. Permanent rural-rural migration is often difficult as this may require moving into new unsettled areas or areas with low population density, unless it is facilitated by some deliberate government policy. Rural-rural migration may however be seasonal labor (e.g. farm workers migrating across states or regions during the harvesting season) and plays important roles in addressing seasonal labor constraints in surplus producing regions and allows efficient use of surplus labor across rural areas. Disparities in planting seasons, per capita land, and rainfall patterns could explain this.

**Methodology/Approach:** The paper employs LSMS-ISA data for Nigeria, which include three waves of longitudinal data. We will merge these panel data with the satellite-based precipitation, temperature incidence of conflict, night light intensity data as proxy for urban growth data and geographical variables to control for disparities in urban growth, planting seasons, per capita land, and rainfall patterns. We will address the drivers rural-rural and rural-urban migration at nationwide and then we will further narrow down the analysis at FtF states.

<p><b>Outputs:</b></p> <ul style="list-style-type: none"> <li>• Working paper completed.</li> <li>• Policy note completed.</li> <li>• Journal paper.</li> </ul>	<p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Drivers of rural-rural and rural-urban migration and the policy options are well established.</li> <li>• Policy influence towards addressing different drivers of youth migration.</li> </ul>
<p><b>Sub-activities [Timing]:</b></p> <ul style="list-style-type: none"> <li>• Q1: Conceptual framework finalized, data cleaning and collection of secondary data completed,</li> </ul>	<p><b>Matching indicators [Target]:</b></p> <p>N/A</p>

<p>review of relevant literature and methodology finalized, preliminary data analysis completed</p> <ul style="list-style-type: none"> <li>• Q2: Draft write-up of results completed, preliminary data analysis completed, draft write-up of results completed</li> <li>• Q3: Working paper completed, policy note completed, journal paper drafted/submitted</li> </ul>	
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<p><b>2.1.3 Analysis of Food Consumption Patterns and Policy Options for Improving Food and Nutrition Security in Nigeria</b></p>	
<p><b>Lead:</b> IFPRI (Olivier Ecker)</p> <p><b>Local collaborator:</b> Dr. Raphael Babatunde, Associate Professor, Department of Agricultural Economics and Farm Management, University of Ilorin, Nigeria</p>	<p><b>Location:</b> Country-wide, as well as disaggregation by urban and rural areas and North and South</p>
<p><b>Justification:</b> The Nigeria Federal Ministry of Agriculture and Rural Development (FMARD) started a process of re-aligning Nigeria’s agricultural strategy with the country’s nutrition goals to accelerate its progress toward achieving SDG2 (“end hunger, achieve food security and improved nutrition, and promote sustainable agriculture”). Nigeria’s nutrition challenges have expanded in recent years: in addition to prevailing high prevalence of chronic child malnutrition and micronutrient deficiencies, overweight and obesity is rising rapidly. Urban-rural and regional gaps in food and nutrition security are widening. Improving household diets is the most powerful lever to effectively and sustainably improve nutrition. Household food consumption is driven by local food availability, household income, and food prices, which are all influenced by agricultural and other food policies.</p> <p>While FMARD’s current agricultural strategy (“Agriculture Promotion Policy 2016-2020”) and complementary food security and nutrition strategy for the agricultural sector recognize the country’s nutrition challenges and the unique role that agriculture can play in improving nutrition, the existing food policies fall short of tackling Nigeria’s nutrition problems, and new approaches are scarce. For example, existing subsidies, regulatory support, and investments in agricultural infrastructure and technology go largely toward cereals, less so to livestock, and hardly at all to vegetables and fruits. However, animal products, vegetables, and fruits are under-consumed by most food insecure people and have greatest potential to improve nutrition outcomes. The lack of reliable, precise data and policy-relevant analysis is one of the main reasons for this shortfall.</p> <p>Understanding household food consumption patterns across different geographies, economic strata, and agricultural seasons, and what drives consumption changes as income and food prices change (due to e.g. economic growth, shocks, or targeted policies), is fundamental for the design and implementation of effective policies and investments. Moreover, such data and knowledge are key inputs for estimating food demand and dietary effects of policy reforms (including agricultural and trade policies) and sector investments (such as in rice production and marketing), as supported by USAID Nigeria.</p>	

<p>The proposed work will be leveraged by a CGIAR A4NH Project, Flagship 1 (“Food Systems for Healthier Diets”), which is led by Olivier Ecker.</p>	
<p><b>Methodology/Approach:</b> The analysis uses the most recent data from the Nigeria General Household Survey – Panel (GHS-Panel). The GHS-Panel is a nationally representative survey that tracks households’ living conditions and consumption over time. The data were collected during the post-planting and post-harvest seasons in 2010-11, 2012-13, and 2015-16. The analysis includes three components: (1) The descriptive analysis will document food consumption patterns by agricultural seasons in urban and rural areas in North and South Nigeria, as well as by economic strata (with a focus on the poor). (2) The econometric analysis will use Quadratic Almost Ideal Demand System models to estimate income and price elasticities. These elasticities provide information about changes in the consumption of specific food groups (e.g., rice, cassava, fish, vegetables, fruits, etc.) due to 1%-change in household income (e.g., of the lowest quintile in the rural North) or 1%-change in the prices of specific foods. (3) The scenario analysis will use these data and information from FMARD and other ministries to estimate the likely food demand and dietary effects of specific policy options to assess their relative effectiveness. The policy scenarios will be defined in close collaboration with experts from FMARD and other local partners.</p>	
<p><b>Outputs:</b></p> <ol style="list-style-type: none"> <li>1. Research paper.</li> <li>2. Policy note.</li> <li>3. Workshop presentation.</li> <li>4. Worksheet with elasticities (for usage in e.g. follow-up analyses by local researchers and policy analysts).</li> </ol>	<p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Detailed knowledge of food consumption patterns and food demand responses and dietary effects due to income and food price changes.</li> <li>• Input for evidence-based decision making in agricultural policy.</li> <li>• Leverage of complementary Projects on food and nutrition security in Nigeria.</li> </ul>
<p><b>Sub-activities [Timing]:</b></p> <ul style="list-style-type: none"> <li>• Q1, Q2: Conduct descriptive and econometric analysis</li> <li>• Q3: Conduct policy scenario analysis and produce outputs</li> </ul>	<p><b>Matching indicators [Target]:</b></p> <p>N/A</p>

<p><b>2.1.4 Impact of smallholder farmers commercial orientation on rural economic development</b></p>	
<p><b>Lead:</b> IFPRI (Todd Benson, Mulubhran Amare)</p>	<p><b>Location:</b> 7 FTF focus states</p>
<p><b>Justification:</b> The commercial orientation of farming households in rural Nigeria is an important consideration in planning rural economic development efforts. Increasing the productivity of such farmers results in greater incomes for their households. This increased income, in turn, increases their demand for the goods, services, and labor that can be supplied by the other, often poorer, households in their community, expanding local non-farm employment opportunities and raising incomes for those other households. Appropriately targeting agricultural development invest-</p>	

ments and programs towards commercially-oriented farmers has important second-round economic development benefits in their communities, effects which cannot be achieved without properly identifying such commercially-oriented farming households.

**Methodology/Approach:** This analysis will provide empirical findings on the importance of commercially-oriented smallholder farming households for agricultural and rural economic development. An essential principle of the APP, and the preceding policy under the Agricultural Transformation Agenda, is that government policies promote private sector-led activities in agriculture to drive economic growth. In ongoing IFPRI research in Malawi, researchers have used LSMS survey data (similar to Nigeria’s LSMS-ISA data) to develop a typology of rural households based on information on crop production and crop sales to determine how commercial orientation in agricultural production might translate to rural economic development.

A parallel study using the LSMS-ISA data is envisaged for Nigeria either for the country as a whole or for the FtF states (decision to be made in Q1). A household typology based on the commercial orientation of household agricultural production (and possibly engagement in non-farm employment) will be developed for use in categorizing sample households in the LSMS-ISA survey series. Analysis of the survey data will then be done to understand what are the characteristics associated with households in each category, which household types are most likely to be involved in selected agricultural commodity value chains, and the economic mobility of households over time in how they are categorized according to the household typology scheme and the factors that propel those changes. These analyses will be done to guide household-level targeting of rural economic and agricultural programs at LGA and state levels and in better understanding the risks to household food security and the scale of the need for social protection in rural communities across Nigeria.

The analysis also will involve examining the participation of survey households, disaggregated by household category, in two or three agricultural commodity value chains. This will be done to explore how different categories of rural households are able to exploit or, alternatively, are excluded from participating in strengthened value chains for these commodities. These value chain analyses will provide insights as to how the pool of farmers who participate in the value chains might be expanded for greater impact on agricultural and rural economic development. The value chains that will be examined will be identified in consultation with USAID/Nigeria and by reviewing development potential rankings that have been done of the value chains for different commodities produced in Nigeria.

<p><b>Outputs:</b></p> <ol style="list-style-type: none"> <li>1. A Working Paper on the LSMS-ISA analysis of a household typology with application of the typology to strengthening selected commodity value chains.</li> <li>2. Research briefs (written for a general audience and no more than 4 pages each) on the household typology approach and, if merited, on the commodity value chains examined.</li> </ol>	<p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Increased recognition in agricultural and rural economic development planning of differentiation across households in rural communities in order to promote more realistic planning and targeting of programs.</li> </ul>
<p><b>Sub-activities [Timing]:</b></p> <p>By end-October 2019:</p> <ol style="list-style-type: none"> <li>1. Definitional criteria finalized for household typology</li> <li>2. Commodity value chains to be assessed, identified</li> </ol>	<p><b>Matching indicators [Target]:</b></p> <p>TBD</p>

By end-March 2020: 1. Report describing analytical approach and overall results in detail 2. Brief(s) for general audience.	
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## Activity 2.2 Constraints and Opportunities in a Key Value Chain (Aquaculture)

2.2.1 Constraints and Opportunities in a Key Value Chain (Aquaculture)	
<b>Lead:</b> IFPRI (Kwaw Andam and Bedru Balana)	<b>Location:</b> Cross-River, Delta, and Ebonyi States
<p><b>Justification:</b> During Y4 the Project supported federal and state government efforts to improve their capacities to plan and implement effective extension policies. As part of these efforts, state governments have started identifying key value chains to be the focus of improved extension services. Aquaculture has emerged as a value chain that could represent the move towards Nigeria’s policy goal of operating ‘agriculture as a business’ if extension services for farmers could be improved. Some subsectors of the aquaculture value chain are profitable, but at the same time key problems remain, including lack of farm management skills, inadequate supply of good quality feed, capital constraints, high cost of feed, and unreliable markets for final products.</p> <p>The aquaculture sector faces constraints and opportunities for improvement all along the value chain. For example, farmers do not have access to a wide range of good quality breeds (fish seed). In terms of feed, commercial feed costs are so high that even at a high feed conversion ratio (the rate at which livestock convert feed into growth), fish farming may not be sustainable. At the same time, lack of extension capacity and poor feed production practices result in low quality of locally-produced feed. At the other end of the value chain, inadequate infrastructure, such as cold chain facilities, power supply, and road connectivity affect market penetration opportunities, making locally-produced fish less competitive against imported products.</p> <p>Rather than a comprehensive assessment of the entire sector, which will require new, representative datasets, this study will use the subsector mapping approach to describe the aquaculture sector in each state and to identify the main points where extension services can make incremental improvements in farm practices and productivity.</p>	
<p><b>Methodology/Approach:</b> The study will take a descriptive approach for each of the states and conduct in-depth interviews with farmers, processors, extension officers, and policymakers to achieve the following:</p> <ol style="list-style-type: none"> <li>1. Depict the main features of aquaculture production by applying the subsector mapping approach described by Haggblade (1991) and Holtzman (1986);</li> <li>2. Quantify the cost structure and prices in the value chain;</li> <li>3. Identify approaches for improving extension delivery through targeted interviews with subsector participants.</li> </ol>	

<b>Outputs:</b> 1. Working paper. (1) 2. State-level policy briefs. (3)	<b>Outcomes:</b> Application of extension reforms to improve aquaculture sector.
<b>Sub-activities [Timing]:</b> <ul style="list-style-type: none"> <li>Q1: Carry out interviews in the three states</li> <li>Q2: Complete subsector analysis and publish working paper</li> <li>Q3: Produce policy briefs</li> </ul>	<b>Matching indicators [Target]:</b>  N/A

**Activity 2.3 Agricultural Technology Adoption and Extension**

<b>2.3.1: Micro-level analyses on the impacts of agricultural public investments on selected indicators of broad development outcomes</b>	
<b>Lead:</b> Hiro Takeshima (IFPRI), Bedru Balana (IFPRI), Kwaw Andam (IFPRI), Hyacinth Edeh (IFPRI), Akeem Lawal (ABU-NAERLS), Abdul-lahi Mohammed Nasir (ARCN)	<b>Location:</b> Nationwide including all seven FtF states
<p><b>Justification:</b></p> <p><u>How this builds upon previous research in Years 1-3</u></p> <p>This sub-activity builds upon the previous research in years 1 to 3 (seed, irrigation and mechanization) by providing evidence on the joint effects of investments in these inputs and technologies. In years 1 to 3, the evidence centered more on the effects of individual investments, which did not fully offer insights into the complementarity of these investments with each other. At the same time, the project also builds on these previous studies by utilizing the data and extending the methodologies used in these studies.</p> <p><u>Which stakeholders expressed demand for this work</u></p> <p>This sub-activity responds to persistent concerns among FMARD and State Ministries of Agriculture, regarding continuous decline in agricultural expenditure in Nigeria (2% of total public expenditure) – which is low given the sector’s share in GDP (20%) and employment (50%). These stakeholders often stated during the dissemination activities in Y4, that the declining budget allocations for agriculture may be partly due to insufficient micro-level evidence showing the effects of agricultural investments on broader development outcomes, using nationally representative data.</p> <p><u>Link with GFSS</u></p> <p>This sub-activity will be linked closely with GFSS, particularly its objectives on inclusive and sustainable agricultural-led economic growth, by providing clearer evidence on the roles of public investments and expenditures in agriculture on growth outcomes, as well as its inclusivity and economic sustainability. The project will also contribute to the other objectives of GFSS, i.e., strengthened resilience among people and systems, and a well-nourished population, especially among women and children, by providing certain evidence on the effects on these outcomes at micro-levels.</p> <p><u>Leveraging opportunities</u></p>	

This sub-activity will potentially leverage the growing interest by the new administration on poverty reduction, and as well as other donors' interests in contributing to public investments in agriculture (including R&D by Harvest Plus, irrigation investments by the World Bank, etc.)

**Methodology/Approach:**

The methodologies to be used largely consist of household-level analyses using LSMS-panel data as well as various spatial agroecological data. The analyses also use secondary data / information on spatial variations in the intensity of public investments/expenditures on agriculture in Nigeria, such as the locations of agricultural R&D institutes and outstations, locations of dams, and state-level public expenditures from selected states (e.g., <https://yourbudgit.com/>). LSMS-community survey data also offer certain indicators on where these public investments / expenditures-funded projects were actually implemented.

Using these datasets, short-term effects of public expenditures will be obtained through standard fixed-effects regressions, while long-term effects may be assessed by investigating the relationship between the estimated fixed effects and geographical variations in public investments and expenditures. The work will largely build on data and methodologies that have been used in earlier work (Takeshima 2018, 2019; Takeshima et al. 2018, 2019).

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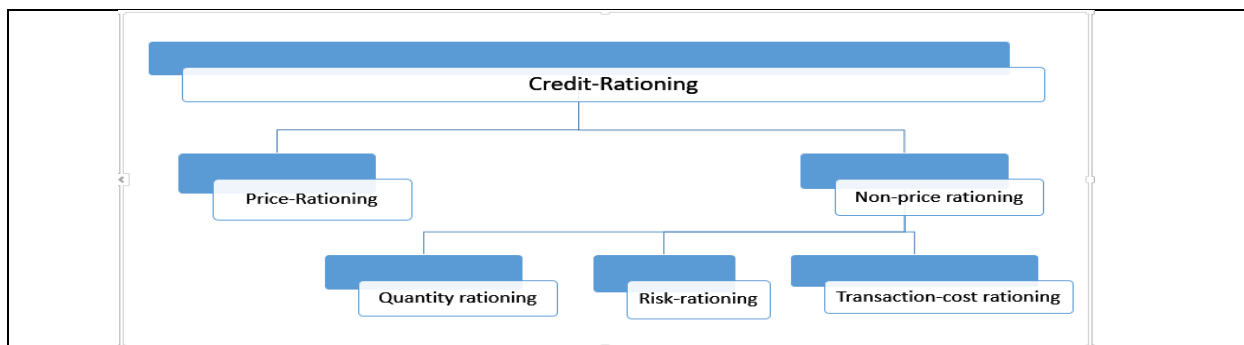
Takeshima H. (2018). Distributional effects of agricultural infrastructure in developing countries: Large irrigation dams and drought mitigation in Nigeria. *Journal of Developing Areas* 52(3), 1–13.

Takeshima H, M Amare & G Mavrotas. (2018). *The role of agricultural productivity in non-farm activities in Nigeria: Effects on sector orientation and factor intensity*. IFPRI Discussion Paper 01761.

<p><b>Outputs:</b></p> <ol style="list-style-type: none"> <li>1. An empirical paper on the micro-level impacts of public investments / expenditures on agricultural outcomes in Nigeria.</li> <li>2. An empirical paper on the micro-level impacts of public investments / expenditures on broader development outcomes in Nigeria.</li> <li>3. A policy brief that summarizes the findings in these papers.</li> </ol>	<p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Improved understanding by the stakeholders on the micro-level impacts of public investments and expenditures in agriculture on various development outcomes.</li> <li>• Improved understanding by the relevant stakeholders on the research methodologies used.</li> </ul>
<p><b>Sub-activities [Timing]:</b></p> <p>Q1: Literature review, collection/processing of remaining data, and data analyses</p> <p>Q2: Completion of draft reports</p> <p>Q3: Dissemination of findings to stakeholders and completion of final reports which incorporate the stakeholders' feedback</p>	<p><b>Matching indicators [Target]:</b></p> <ul style="list-style-type: none"> <li>• 75 stakeholders from the government, civil society, research organizations, and the private sector, benefited, by way of the dissemination of research findings.</li> <li>• 25 stakeholders benefited from the training on research methodologies.</li> </ul>

<b>2.3.2 Credit Access and Agricultural Technology Adoption</b>	
<b>Lead:</b> IFPRI (Bedru Balana)	<b>Location:</b> Both nationwide and the FtF states
<b>Local collaborator:</b> Dr Anthony Onoja (APR-Net)	
<p><b>Justification:</b> Limited access to credit has been ubiquitously claimed as a main constraint to agricultural technology adoption among smallholder farmers in developing countries. Even when studies do not directly analyze the role of credit, it is common to see improved access to credit as a benign policy option to boost productivity. Credit constraint to smallholders is often associated with either absence of accessible credit sources in local areas, absence of credit products in line with smallholder needs or high cost of borrowing (i.e., high interest rates). Factors other than interest rates could play important roles in the functioning of credit markets and credit-rationing to smallholder borrowers. Credit rationing due to factors other than the interest rate is termed as ‘non-price credit rationing’.</p> <p>Even if farmers can access a potential source of credit, they may not take it up or use it to finance agricultural technologies for several reasons: (i) risk-aversion: fear of inability to pay back and subsequently lose collateral or group responsibility (ii) interest rates and collateral requirements and repayment schedules that most small holders cannot afford, (iii) farmers find it economically more attractive to finance the input purchases from crop sales or other sources of income(e.g. non-farm employment) than taking loans; and (iv) high transaction costs such as complicated loan application procedures or access to microfinance services are costly because of distance. When farmers take up credit, the likelihood of its use for acquiring inputs and technologies depends on several factors: the source of credit (as rural financial intermediaries may differ in products and services they offer), the amount of the loan, interest rates, repayment schedules, and farmers’ intended purpose in seeking a loan.</p> <p>Understanding credit constraints, the reasons why farmers do not take up credit or what types of credit are more suitable to facilitate agricultural technology adoption could help generate a more nuanced menu of policy options. In the context of smallholder farmers in Sub-Saharan Africa, empirical knowledge gaps exist in understanding the nature of credit constraint (‘price and non-price credit constraints’) and whether credit is in fact a major limiting factor for agricultural technology adoption by smallholders. Understanding the nature of credit constraints among smallholders and credit-rationing mechanisms help identify the causal impacts of the multiple potential forms of credit constraints in agricultural technology adoption and provide empirical evidence to support policy decisions. Thus, two sets of key research questions can be advanced:</p> <ol style="list-style-type: none"> <li>1. What are the different forms of credit constraints facing smallholder farmers? How do we identify and measure them?</li> <li>2. What are the effects of credit constraints on agricultural technology adoption? Is access to credit a major limiting factor to agricultural technology adoption? How do we measure the effects?</li> </ol>	
<b>Methodology/Approach:</b> For analytical purposes, we will adapt a conceptual framework of credit rationing in the agricultural sector, depicted in the diagram below.	





Credit-constraints and its rationing mechanisms can be categorized into two: (1) price-constraint – this is essentially credit-rationing mechanism via interest rates, and (2) non-price factors— here potential borrowers are credit-constrained due to several non-price factors such as: (a) ‘lack of the required collateral’ (borrowers who lack collateral and involuntarily excluded from the credit market(‘*quantity-rationing*’); (b) borrowers may voluntarily withdraw from the credit market due to ‘fear of risk of losing collateral’ (*risk-rationing*) even if they have the collateral wealth needed to qualify for a loan; and (c) high transactions costs, for instance, bureaucratic administrative processes; lengthy loan application and processing; transport costs due to distance etc. (‘*transaction cost- rationing*’).

To explore the extent to which credit access is a limiting factor for the adoption of agricultural technology adoption in developing countries, we will use survey data drawn from the LSMS and other surveys in Nigeria. Gaps in the existing data will be filled in by additional field data collection. Finally, econometric analysis will be used to examine whether gender-specific credit constraints have differentiated effects on agricultural/irrigation technology adoption.

<p><b>Outputs:</b></p> <ul style="list-style-type: none"> <li>• Working paper.</li> <li>• Policy Brief.</li> <li>• Journal paper.</li> </ul>	<p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>• The linkage between agricultural technology adoption and credit constraint is well established.</li> <li>• Policy towards improving smallholder’s access to credit is influenced.</li> </ul>
<p><b>Sub-activities [Timing]:</b></p> <ul style="list-style-type: none"> <li>• Q1: Literature review; Collate existing data; Identify data gap, Design instruments for collection of new data; Collect new data (if required); Data cleaning/organization; Model development</li> <li>• Q2: Data analysis; Draft write-up of results (working paper); Dissemination of results</li> <li>• Q3: Write a policy note on credit constraint and agricultural technology adoption; Journal paper drafted/submitted</li> </ul>	<p><b>Matching indicators [Target]:</b></p> <p>N/A</p>

**2.3.3 Gap analysis and investment plan for extension reform**

<p><b>Lead:</b> Suresh Babu, IFPRI;</p> <p>Local collaborators: Director and staff of FMARD Department of Extension; and directors and staff of state level ADPs in 4 FTF states. In addition, NAERLS, one of the 18 NARIs under FMARD, will collaborate to provide sustainability to the efforts beyond Y5.</p>	<p><b>Location:</b> FMARD, Abuja, Niger and Cross River States in 2018-19 and 2 other FTF states in 2019-2020.</p>
<p><b>Justification:</b> The government of Nigeria has requested IFPRI’s help to review and reform its extension systems at the state and federal levels. IFPRI has been helping to set up the Federal Department of Extension, starting its advocacy since 2011. Further, IFPRI has been assisting in developing the national extension policy, which has been approved. Following the development of the national policy on extension, the Permanent Secretary of the Federal Ministry of Agriculture, has requested IFPRI / USAID mission’s assistance in institutional strengthening for implementation of the National Extension Policy at the federal and state levels. Given the USAID mission’s specific priorities in the implementation of the GFSS and the focus on the FTF states, in 2018-19 IFPRI agreed with FMARD to work with Niger and Cross River States. Based on this request IFPRI, with USAID support, has been helping to strengthen the institutional capacity of the Federal Department of Extension to strengthen its staff for identifying priorities, organizing human resources, developing a monitoring and evaluation and learning system and applying the Kaleidoscope Model and the Capacity Development for Agricultural Innovation System (CDAIS) approach to capacity for implementation of the national extension policy. This proposed work in Y5 will build on Y4 activities and develop a systemic approach to develop gap analysis and investment plans for the rest of the FTF states and other non-FTF states going beyond Y5. We have brought together other FTF actors and players in the respective states to work together on the implementation of the national extension policy and recognize their role in the gap analysis. We will continue this consultative process also in Y5. Finally, the institutional capacity development process will involve the National Agricultural Extension and Research Liaison Services (NAERLS) as one of the 18 National Agricultural Research Institutes (NARIs) under the Federal Ministry of Agriculture and Rural Development to provide the continuity and sustainability of the efforts beyond Y5 that will extend to other FTF states and other non-FTF states.</p>	
<p><b>Methodology/Approach:</b></p> <ol style="list-style-type: none"> <li>1. The methodology of policy dialogue and consultation on the Implementation Strategies for the National Extension Policy that was used in Y4 will continue in Y5. In addition, the Federal level workshop will involve FMARD professionals in Abuja and NAERLS staff (training of trainers) for sustainability.</li> <li>2. The workshop at the FMARD level will involve institutional capacity development for guiding the state level Agricultural Development Programs (ADPs) for the 2 identified states.</li> <li>3. State level implementation consultation workshops in 2 FTF states will involve development of the implementation gaps and identified investment needs for the implementation of the National Extension Policy.</li> <li>4. The above workshops will be supplemented by key informant interviews with state level officials involved in the extension policy implementation including the staff of the ADPs and the State Ministry of Agriculture.</li> </ol>	

<p><b>Outputs:</b></p> <ul style="list-style-type: none"> <li>• Consultations at the federal Level to bring actors and players together to develop implementation strategies for 2 FTF states.</li> <li>• Training workshop to develop the gap analysis and investment plans for the implementation of National Extension Policies for the 2 FTF states.</li> <li>• Two gap analysis and investment plans for the 2 FTF states.</li> </ul>	<p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Improved institutional capacity for the development of implementation plans for the rest of the FTF states and other non-FTF states beyond Y5.</li> <li>• Use of gap analysis and the investment plan reports for the 2 FTF states to guide resource allocation and develop monitoring, evaluation and learning systems implementation of the National Extension Policy.</li> <li>• Continued implementation of the implementation strategies for other FTF states and non-FTF states after Y5 through the capacity development of NAERLS to further implement institutional capacity development activities.</li> </ul>
<p><b>Sub-activities [Timing]:</b></p>	<p><b>Matching indicators [Target]:</b></p>
<ul style="list-style-type: none"> <li>• Q1, Q2: Work in 2 FTF states</li> <li>• Q2, Q3: Preparation of the reports and finalization of the investment plans and dissemination</li> </ul>	<p>N/A</p>

**Component 3: Strengthening Evidence-Based Policy Processes and Promoting Impact**

This component serves as an outlet for research findings and evidence-based recommendations of ongoing research, policy analysis, and/or outcomes from roundtable discussions or seminar dialogues sponsored by the Project and its partners. The Project goal remains to promote a “think tank” culture within the agricultural policy process – through organizing various seminars and events targeted at all the actors in the process including policy makers, the local research community, FMARD, state level actors, development partners, and the general media. In year 5 of Project implementation, special attention will be placed on promoting Project research that has been undertaken so far and some of the activities emanating from various consultations held in year 4. For example, the Project will work with a team in Ebonyi State to prepare a climate change adaptation plan based on the research conducted by the Project and conversations exchanged at the May 2019 stakeholder event in Ebonyi. In year 5, the Project will also intensify its dissemination efforts through a number of outlets (e.g. a combination of seminars, workshops, and policy roundtables involving all key stakeholders in the sector; policy briefs accompanying more technical research outputs; and the Project blog) and extend partnership with other research networks and institutes within the country to further promote its policy findings and recommendations. In year 5, a majority of the research dissemination efforts will be led by Nigerian collaborators (supported by MSU faculty in the case of research teams initially led by MSU) just as in the delivery of R training by NAPP scholars. As needed, MSU faculty will provide support and general oversight for quality control and as a form of mentoring.

### Activity 3.1 Strengthening Policy Processes by Bridging the Gap between “Knowledge Providers” and “Knowledge Users”: Outreach, Engagement and Dissemination of Results from Component 2

This intervention is designed to strengthen the capacity of a wide range of players from public actors, private actors, and farmer associations, and the role each has in policy debate and dialogue. To this end the various seminars, roundtables, policy dialogues and workshops planned by the Project in its remaining year will bring together “knowledge providers” (e.g. policy analysts, academics, technical experts) and “knowledge users” (i.e. policymakers, donors, farmers, civil society and the private sector) to share research results and/or ongoing policy analysis efforts, promoting further policy dialogue around them.

<b>3.1.1 National/ State Level Dissemination</b>	
<b>Lead:</b> IFPRI/MSU	<b>Location:</b> FCT and 7 FTF focus states
<b>Justification:</b> Under this component, the Project seeks to systematically bring together various stakeholders and actors in the policy process to share knowledge that can contribute to improved policy processes and promote impact.	
<b>Methodology/Approach:</b> Dissemination activities including seminars and policy events will be organized at the national and state level to share knowledge and key results from the various Project activities since its inception in year 1. Workshops and seminars will be organized on a quarterly basis in the 7 FTF states as well as Ibadan and the FCT. Research Team Leads involved in various research activities, since Project implementation, will travel to Nigeria in year 5 to deliver seminars/workshops based on their various research work undertaken so far. To further enhance national capacity, local research collaborators involved in the various research teams will also be involved in the delivery of workshops/seminars on behalf of the Project.	
<b>Outputs:</b> 1. Number of seminars, workshops, symposia and other high-level policy events organized.	<b>Outcomes:</b> <ul style="list-style-type: none"> <li>• Policy processes in the agricultural sector improved.</li> <li>• Trainees will be equipped to effectively disseminate research results to a range of stakeholders.</li> </ul>
<b>Sub-activities [Timing]:</b>	<b>Matching indicators [Target]:</b>
1. Policy seminars/workshops organized at the federal and state level to disseminate Project related research [Quarterly]	2. Number of participants attending Project organized research and policy events. (Custom) [300]
2. GFSS sensitization in three FTF states [Q1, Q2]	2. Number of participants attending Project organized research and policy events. Ibadan [30], 3 state level disseminations. [300] 7. Number of agriculture policy communications developed and/or written for stakeholder consumption. (3)

<b>3.1.2 Support to FMARD policy processes</b>	
<b>Lead:</b> IFPRI	<b>Location:</b> Abuja
<b>Justification:</b> Policy makers often seek information and evidence on emerging issues or challenges for which a policy response is needed. This can range from simple statistics that describe current conditions or trends to an analysis of the potential tradeoffs among different policy options they may be considering. In some cases, policy makers also need support in the review of upcoming policies in terms of design and analysis.	
<b>Methodology/Approach:</b> The Project will provide support to FMARD on various agricultural policy processes on a rolling demand basis. Such support will involve review of policy documents as well as technical assistance (such as contribution to and review of reports – already done in the case of the Joint Sector Review (JSR )process report prepared by the FMARD, with further contributions planned in year 5) to policies implemented by FMARD (see APP, NAIP, JSR & CAADP, CAP-F). The Project will support the Policy Coordination Unit in connection with the APP implementation process regarding the need to make further progress with the alignment consultation process that was initiated in year 3. Support will also be provided to other Departments under FMARD including the Extension Department, ARCN and the National Agricultural Extension and Research Liaison Services (NAERLS).	
<b>Outputs:</b> 1. Policies reviewed. 2. Number of policies passing through one or more processes/steps of policy change.	<b>Outcomes:</b> • FMARD ability to implement policies enhanced.
<b>Sub-activities [Timing]:</b>	<b>Matching indicators [Target]:</b>
1 Support to FMARD policies (e.g. APP, NAIP, CAADP, CAP-F) [Quarterly]	3. Number of agricultural and nutritional enabling environment policies completing the following processes/steps of development as a result of United State Government assistance (USG) in each case: 1. Analysis 2. Stakeholder consult/public debate 3. Drafting or revision Standard Feed the Future (FTF) Indicator EG.3.1-12 [1]
2 Support to the Projects Coordination Unit (PCU) [Quarterly]	
3 Support to ARCN [Quarterly]	
4 Stakeholder learning forums jointly undertaken with NAERLS [Q2, Q3]	

**Activity 3.2 Support for State Agricultural Policy Development (or Review) for two FTF states**

<b>3.2.1 Support for State Policy Development (or Review) Ebonyi State and Delta State (FTF states)</b>	
<b>Lead:</b> IFPRI	<b>Location:</b> Two FTF states
<b>Justification:</b> Four FTF focus states (Cross River, Delta, Ebonyi and Kebbi) approached the Project to support their effort at state agricultural policy formulation/review. In some states, prior to reaching out to the Policy Project, the intention was to merely adopt the Agriculture Promotion Policy (APP) as a state policy without any further input, not even capturing the areas of agriculture where the state had comparative advantage. The Project has already worked with Kebbi and Cross River States in year 3 of Project implementation. The Project will work with the remaining two	

states in year 5 (Ebonyi and Delta States) to address the demand for a holistic state agricultural policy in tandem with the APP.	
<b>Methodology/Approach:</b> Formulation of policy objectives. Evaluation of the performance of current policy. Definition of operational characteristics of the new policy set.	
<b>Outputs:</b> 1. A well-informed state agricultural policy modelled after the APP but suited to enhance the states' comparative advantages in agriculture.	<b>Outcomes:</b> • State level agricultural policies that are based on current data and are applied to the agricultural sector.
<b>Sub-activities [Timing]:</b> <b>Comprehensive Agricultural Policy review (development)</b> 1. Situation analysis in Ebonyi State [Q1] 2. Situation analysis in Delta State [Q1] 3. Stakeholder engagement Ebonyi State [Q2] 4. Stakeholder engagement in Delta State [Q1] 5. Drafting/stakeholder review Ebonyi State [Q2] 6. Drafting/stakeholder review Delta State [Q2] 7. Validation/presentation in Ebonyi State [Q3] 8. Validation/presentation in Delta State [Q3]	<b>Matching indicators [Target]:</b> 3. Number of milestones in improved institutional architecture for food security policy achieved with USG support. (6)

<b>3.2.2 Support for Kebbi State Policy Development Completion and Implementation</b>	
<b>Lead:</b> MSU	<b>Location:</b> Kebbi
<b>Justification:</b> The Project has worked with the Kebbi State Government, particularly the State Ministry of Agriculture and Natural Resources to develop an evidence based agricultural policy in year 3. Once completed, the next step is implementation. However, it appears evident that onsite technical capacity for its implementation is limited and this appears to be a lingering challenge not peculiar to Kebbi State. Hence, the Project envisages that without technical support, progress on the implementation of the state agricultural policy might be hampered. In this regard, on completion of the policy validation process, the Project proposes to provide technical support for the implementation of the said agricultural policy. The technical support is envisaged to commence in Quarter 1 and continue all through year 5.	
<b>Methodology/Approach:</b> Technical support for the implementation of the policy. Onsite collaborative monitoring and evaluation largely led by collaborators on the ground.	

<b>Outputs:</b> 1. A high-level implementation record of the state agricultural policy.	<b>Outcomes:</b> • State level agricultural policy implementation that promotes enhanced agricultural productivity, increased incomes and nutrition rates for the state population.
<b>Sub-activities [Timing]:</b> 1. Technical Support for the implementation of the State Agricultural Policy (Q1, Q2, Q3) 2. Offsite Collaborative Monitoring and Evaluation (Q1, Q2, Q3) 3. Onsite Collaborative Monitoring and Evaluation (Q2, Q3)	<b>Matching indicators [Target]:</b> N/A

**Activity 3.3: Engagement with Private Sector**

<b>3.3.1: Engagement with Private Sector</b>	
<b>Lead:</b> IFPRI	<b>Location:</b> FCT and 7 FtF states
<b>Justification:</b> The private sector can play an important role in the development of the agricultural sector in Nigeria. The Government of Nigeria recognizes that a vibrant private sector is key to attaining some of the objectives outlined in the APP and other key policy documents.	
<b>Methodology/Approach:</b> The Project will interact closely with the FTF Partnership for Inclusive Agricultural Transformation in Africa (PIATA) implemented by the Alliance for a Green Revolution in Africa (AGRA), the FTF Nigeria Nestle Maize Quality Improvement Partnership activity (implemented by CNFA) and ADAN for private sector actors that the Project could engage with, The above listed will guide the Project on capacity building activities and dissemination events to be delivered for its members with a focus on the 7 FTF states. The Project will also work with the other stakeholders such as: <ul style="list-style-type: none"> <li>• All Farmers Association of Nigeria (AFAN)</li> <li>• Association of Small-scale Agro Producers in Nigeria</li> <li>• Nigerian Women Agro-Allied Farmers Association</li> </ul>	
<b>Outputs:</b> 1. Number of dissemination events undertaken with the private sector. 2. Number of meetings undertaken with private sector organizations.	<b>Outcomes:</b> • Increased awareness of issues affecting the private organizations in the agricultural sector.
<b>Sub-activities [Timing]:</b> 1. Interact with and attend Nigeria Agribusiness Group (NABG) stakeholder meetings [Q1, Q2, Q3] 2. Organize joint dissemination events and stakeholder interactions with NABG [Q2]	<b>Matching indicators [Target]:</b> 9. Number of public private advocacy dialogues focused on policy that supports private sector investment (Custom) [2]  10. Number of for-profit private enterprises, producer’s organizations, water users’ associations, women’s groups, trade and agribusiness associations (such as farmer-based organizations) and

	community-based organizations (CBOs) receiving USG assistance disaggregated by: New (receiving USG assistance for the first time) and Continuing (received USG assistance the previous year) Standard Feed the Future Indicator EG3.2-4
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**Activity 3.4: Engagement with Other Non-governmental Stakeholders (Civil Society and Think Tanks) with Particular Focus on FTF states, where possible**

<b>3.4.1: Engagement with non-governmental stakeholders (e.g. civil society, NGOs, and think tanks) with particular focus on FTF states #1</b>	
<b>Lead:</b> IFPRI/MSU	<b>Location:</b> Various
<b>Justification:</b> Besides the private sector, civil society, NGOs and think tanks play an important role in the agricultural sector and the Project will also continue to work closely with such stakeholders in year 5.	
<p><b>Methodology/Approach:</b> The Project will participate in stakeholder meetings and organize events jointly with non-governmental stakeholders where applicable. The Project will work with the following stakeholders in year 5:</p> <ul style="list-style-type: none"> <li>• Agricultural Donor Working Group (ADWG). The purpose of the ADWG is to discuss major agriculture policies and issues with the leadership of the Government of Nigeria, coordinate donor support for the implementation of the Comprehensive African Agriculture Development Program (CAADP), and improve donor collaboration and effectiveness. The Project will continue to actively participate in meetings organized by the ADWG every two months. Meetings are normally organized in Abuja.</li> <li>• Agricultural Policy Research Network (APRNet). APRNet is a network devoted to bridging the gap between research and policymaking for agricultural and rural development. The Project supports the network to fulfil its mandate and attends and contributes in the network’s events in Abuja and FTF states.</li> <li>• Association of Deans of Agricultural Universities (ADAN). The Association engages with various stakeholders on key issues related to agriculture and economic development in Nigeria. The Project will engage with the Association on policy issues in FCT and FTF states.</li> <li>• NAAE. This is the Professional Association of Agricultural Economists in Nigeria and brings together researchers and educators from all over Nigeria. The Policy Project will engage with the association in its capacity building efforts. This includes jointly organizing conferences and seminars to support research on agriculture and as well as activities to support engagement with and dissemination of research findings to various Project stakeholders.</li> <li>• Youth initiative for sustainable agriculture (YISA). YISA is an agro-knowledge based organization of young graduates of agricultural discipline and other young people with genuine interest and passion for agriculture. The Project will work closely with YISA in Abuja in areas of youth involvement in agriculture, capacity building, and dissemination activities.</li> <li>• The Federation of Muslim Women’s Association in Nigeria. This is a faith- based umbrella organization that links Islamic women’s groups in Nigeria. The organization aims at improving the status of Muslim women and children, to advance Nigerian development Projects, and to promote the “positive social behavior of Muslim girls,” embracing girls’ education as a means to eradicating poverty. The organization plays a key role in nutrition and</li> </ul>	



<p>agricultural issues for women in Kebbi State and the Project will continue working with the organization in this capacity.</p>	
<p><b>Outputs:</b></p> <p>1. Number of stakeholder learning forums undertaken to disseminate Project related findings/best practices.</p>	<p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>Increased awareness of policy issues in the agricultural sector.</li> </ul>
<p><b>Sub-activities [Timing]:</b></p> <p>1. Meeting with various stakeholders in the policy process (APRNET) [Quarterly]</p> <p>2. Engage with associations that would enable the Project to reach the agricultural economics community in Nigeria more broadly (Nigerian Agricultural Economics Association, ADAN) [Quarterly]</p> <p>3. Meeting with various stakeholders in the policy process identified during the course of the Project (ADWG) (Quarterly)</p> <p>4. Attend stakeholder meetings [Quarterly]</p>	<p><b>Matching indicators [Target]:</b></p> <p>N/A</p> <p>5. Number of individuals who have received USG supported short-term technical training in agricultural sector productivity or food security policy analysis training.</p>

## Program Management

<b>4.1 Project Administration</b>	
<b>Lead:</b> MSU/IFPRI	<b>Location:</b> Various
<b>Outputs:</b> 1. Close out activities.	<b>Outcomes:</b> • Smooth and efficient administration of the Project.
<b>Sub-activities [Timing]:</b>	<b>Matching indicators [Target]:</b>
1. Close out activities	
2. Financial management of Project resources, efficient submission and reimbursement of invoices [Q1-Q3]	N/A
3. Update Project communication pieces as needed: pamphlet, poster	

<b>4.2 Project Coordination</b>	
<b>Lead:</b> IFPRI/MSU	<b>Location:</b> Nigeria
<b>Outputs:</b> 1. Stakeholder engagements.	<b>Outcomes:</b> • Promoting stakeholder consultation in the Project and improving likelihood of program buy-in and success.
<b>Sub-activities [Timing]:</b>	<b>Matching indicators [Target]:</b>
1. Meetings and coordination among Project implementers and with other stakeholders to ensure consistency and to avoid duplication of action [Quarterly]	N/A
2. Meetings with other USAID implementing partners in the area of agricultural policy reform to coordinate activities and communications outreach [Quarterly]	
3. Advisory committee meetings to discuss the Project [Q2, Q3]	
4. Management team meetings every 2 weeks	
5. Ensure that Project outputs are available: Project website, Development Experience Clearinghouse DEC	
6. Quarterly field visits with USAID to monitor progress	

<b>4.3 Reporting and Monitoring and Evaluation</b>	
<b>Lead:</b> IFPRI/MSU	<b>Location:</b> Nigeria
<b>Outputs:</b> 1. Data base of indicators. 2. Survey report. 3. Project quarterly reports.	<b>Outcomes:</b> <ul style="list-style-type: none"> <li>• Adherence to award requirements.</li> <li>• Promoting stakeholder consultation in the Project and improving likelihood of program buy-in and success.</li> </ul>
<b>Sub-activities [Timing]:</b>	<b>Matching indicators [Target]:</b>
1. Collect indicator information for reporting purposes [Quarterly]	1. 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. [1.568] 2. 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. [1.745]
2. Financial Reports [Quarterly]	
3. Quarterly reports [Q1, Q2]	
4. Final report (including indicators) [Q3]	

## Appendix A: Training Courses

### Overall Picture

States	Type of Beneficiary	Training Topic	Estimated Number of Days Per Training Session (to be finalized with stakeholders)
FTF states and On-demand	Faculty, graduate students, state and federal ministry officials and the private sector (including farmers and media, as relevant)	<ul style="list-style-type: none"> <li>• Policy analysis using R</li> <li>• Article-writing training</li> <li>• Aflatoxin training</li> <li>• Soil science analysis methods and phone applications</li> </ul>	2-5
FCT and On-demand	Staff members and directors from FMARD and other government institutions	<ul style="list-style-type: none"> <li>• Policy and Strategy: Agriculture Promotion Policy (APP), Economic Recovery and Growth Plan (ERGP) and Comprehensive Africa Agriculture Development Programme (CAADP), African Continental Free Trade Agreement (ACFTA)</li> <li>• Strengthening monitoring and evaluation</li> </ul>	2-5
Delta, Ebonyi, Cross-River, Niger, Kaduna, Kebbi and Benue and On-demand	Universities, think tanks, research institutions, CBOs, NGOs, farmer groups, and the private sector	<ul style="list-style-type: none"> <li>• Policy brief writing</li> <li>• Extension policy reforms</li> <li>• Group dynamics</li> <li>• Issues in agriculture and development</li> <li>• Result-based monitoring, evaluation and learning</li> </ul>	2-5
FCT, Delta, Ebonyi, Cross-River, Niger, Kaduna, Kebbi, Benue and On-demand	National Assembly media and the 7 FTF focus states media personnel	<ul style="list-style-type: none"> <li>• Agricultural policy communication based on revised course content</li> </ul>	2

## Appendix B: Summary Year 5 Work Calendar

Component/Activity Description		Y5 2019/2020		
		Oct-Dec	Jan-Mar	Apr-Jun
<b>Component 1: A Strategy for Enhancing National Agriculture and Food Security Policy Capacity</b>				
<b>Activity 1.1 Capacity Development and Strengthening at the Federal Level</b>				
<b>1.1.1 Developing Capacity in the Agriculture Ministry (FMARD)</b>				
	1. Policy and Strategy: Agriculture Promotion Policy (APP), Economic Recovery and Growth Plan (ERGP), African Continental Free Trade Agreement (ACFTA) and Comprehensive Africa Agriculture Development Programme (CAADP) [Q1]			
	2. Strengthening monitoring and evaluation within FMARD [Q1, Q2]			
	3. Extension policy reforms [Q1, Q2]			
	4. Ad-hoc training courses demanded by FMARD [Q1, Q2, Q3]			
<b>1.1.2 Developing Capacity in the Research System (National Training Universities, think tanks, research institutions)</b>				
	1. Results based monitoring and evaluation [Quarterly]			
	2. Policy analysis using R (training course to be facilitated by Project Scholars following their return from MSU [Q1, Q2]			
	3. Ad-hoc training courses demanded by other universities from FtF focused states [Quarterly]			
<b>Activity 1.2 Capacity Development and Strengthening at the State Level</b>				
<b>1.2.1 Data and Policy analysis training/workshop for ministry staff and academics in the 7 FTF states and Policy Analysis for Priority areas</b>				
	1. Training for ministry staff, including Ministry Directors, and academics in the 7 FTF states on policies and strategies, including writing policy briefs [Quarterly]			
	2. Building capacity for developing and implementing extension policy reforms [Q1, Q2]			
	3. Ad-hoc training courses demanded by the state ministries [Quarterly]			
<b>Activity 1.3 Nigerian Graduate Student Capacity Building</b>				
<b>1.3.1 Project Scholars</b>				
	1. Training on data analysis training in R (to be extended to other Nigerian graduate students and faculty in FTF states) [Q1] Note: this includes only Universities.			
	2. R training offered by PhD scholar [Q1-Q3]			
	3. Graduate students come for training at MSU [Q1]			
	4. Nigerian Graduate student presentations at MSU [Q1]			

	5. Scholars will facilitate article writing trainings [Q1-Q3]			
	6. Nigerian professor's presentations at MSU [Q1]			
	7. Nigerian professors' meetings with various faculty at MSU [Q1]			
	8. Blog used by scholars to increase dissemination of best practices [Annual]			
	9. Each scholar will produce 3 Project highlights [Q1]			
	10. Each Research Supervisor will produce a Project highlight [Q1-Q2]			
	11. "Earlier or Previous" scholars give presentations in Nigeria at dissemination fora [Q1 -Q3]			
	12. Scholars engaged in Project dissemination activities for the findings coming out of the climate change and food systems research conducted in years 1-3. This involves generating appropriate communication pieces [Q2, Q3]			
	13. Scholars engaged in analyzing the community level climate change adaptation data and in the write up [Q1-Q2]			
	14. Dissemination and training activity planned by the aflatoxin team led by Project Scholar Ms. Toyin and her advisor in all 7 states [Q1-Q3]			
<b>Activity 1.4: Media engagement and Training (Agricultural Communication and Policy Advocacy)</b>				
<b>1.4.1 Media engagement and Training (Agricultural Communication and Grant Writing)</b>				
	1. Revision of course content [Q1]			
	2. Identification and selection of course participants across the FTF focus states and Abuja [Q1]			
	3. Delivery of course in Abuja [Q2]			
	4. Follow up [Q3]			
<b>Component 2: Policy-Driven Collaborative Research and Analysis</b>				
<b>Activity 2.1 Food and Nutrition Security</b>				
<b>2.1.1 The Impact of Agricultural Productivity Changes on Child Nutritional Outcomes</b>				
	1. Finalize methodology and complete preliminary data analysis			
	2. Prepare draft paper for review			
	3. Finalize working paper and policy brief			
<b>2.1.2 Differences and drivers of rural-rural vs rural-urban youth migration</b>				
	1. Finalize methodology and complete preliminary data analysis			
	2. Prepare draft paper for review			
	3. Finalize working paper and policy brief			
<b>2.1.3 Analysis of Food Consumption Patterns and Policy Options for Improving Food and Nutrition Security in Nigeria</b>				

	1. Conduct descriptive and econometric analysis [Q1, Q2]			
	2. Conduct econometric analysis [Q2, Q3]			
	3. Conduct policy scenario analysis and complete outputs [Q3]			
<b>2.1.4 Impact of smallholder farmers commercial orientation on rural economic development</b>				
	1. Finalize methodology and complete preliminary data analysis			
	2. Prepare draft paper for review			
	3. Finalize working paper and policy brief			
<b>Activity 2.2 Constraints and Opportunities in a Key Value Chain (Aquaculture)</b>				
<b>2.2.1 The Aquaculture Value Chain</b>				
	1. Review secondary data and conduct scoping visits			
	2. Conduct subsector mapping exercise, and prepare draft paper for review			
	3. Finalize working paper and policy brief			
<b>Activity 2.3 Agricultural Technology Adoption and Extension</b>				
<b>2.3.1 Impacts of agricultural public investments on development</b>				
	1. Collect secondary data and conduct preliminary analysis			
	2. Prepare working paper, policy brief, and dissemination event(s)			
<b>2.3.2 Credit Access and Agricultural Technology Adoption</b>				
	1. Literature review; Collate existing data; Collect new data (if required); Data cleaning/organization; Model development			
	2. Data analysis; Draft write-up of results (working paper); Dissemination of results			
	3. Write a policy note on credit constraint and agricultural technology adoption; Journal paper drafted/submitted			
<b>2.3.3 Gap analysis and investment plan for extension reform</b>				
	1. Consultations at the federal level to bring the actors and players to develop implementation strategies for 2 FTF states			
	2. Training workshop to develop gap analysis and investment plans for the implementation of National Extension Policies for the 2 FTF states			
	3. Two gap analyses and investment plans for the 2 FTF states			
<b>Component 3: Strengthening Evidence-Based Policy Processes and Promoting Impact</b>				
<b>Activity 3.1 Strengthening Policy Processes by Bridging the Gap between “Knowledge Providers” and “Knowledge Users”: Outreach, Engagement and Dissemination of Results from Component 2</b>				
<b>3.1.1 FMARD/National/ State Level Dissemination</b>				

	1. Policy seminars/workshops organized at the federal and state level to disseminate Project-related research [Quarterly]			
	2. Global Food Security Strategy (GFSS) sensitization in three FTF states [Q1, Q2]			
<b>3.1.2 Support to FMARD policy processes</b>				
	1. Support to FMARD policies (APP, NAIP, JSR, CAADP, CAP-F)			
	2. Support to the Project Coordination Unit of FMARD			
	3. Support to the Agricultural Research Council of Nigeria (ARCN)			
	4. Stakeholder learning forums jointly undertaken with NAERLS			
<b>Activity 3.2 Support for State Agricultural Policy Development (or Review) for two FTF states</b>				
<b>3.2.1 Support for State Policy Development (or Review) Delta and Ebonyi States (FTF states)</b>				
	1. Situation Analysis Ebonyi State [Q1]			
	2. Situation Analysis Delta State [Q1]			
	3. Stakeholder engagement Ebonyi State [Q2]			
	4. Stakeholder engagement Delta State [Q2]			
	5. Drafting/Stakeholder Review Ebonyi State [Q2]			
	6. Drafting/Stakeholder Review Delta [Q2]			
	7. Validation/Presentation in Ebonyi [Q3]			
	8. Validation/Presentation in Delta [Q3]			
<b>3.2.2 Support for Kebbi State Policy Development Completion and Implementation</b>				
	1. Technical Support for the implementation of the State Agricultural Policy (Q1, Q2)			
	2. Offsite Collaborative Monitoring and Evaluation (Q1, Q2)			
	3. Onsite Collaborative Monitoring and Evaluation (Q2)			
<b>Activity 3.3 Engagement with Private Sector</b>				
<b>3.3.1 Engagement with Private Sector</b>				
	1. Interact with and attend private sector stakeholder meetings [Q1, Q2, Q3]			
	2. Organize joint dissemination events and stakeholder interactions with NABG [Q2]			
<b>Activity 3.4 Engagement with Other Non-governmental Stakeholders (Civil Society and Think Tanks) with Particular Focus on FTF states, where possible</b>				
<b>3.4.1 Engagement with non-governmental stakeholders (e.g. civil society, NGOs, and think tanks) with particular focus on FTF states</b>				
	1. Meeting with various stakeholders in the policy process (APRNet) [Quarterly]			



	2. Engage with associations that would enable the Project to reach the agricultural economics community in Nigeria more broadly (Nigerian Agricultural Economics Association, ADAN) [Quarterly]			
	3. Meeting with various stakeholders in the policy process identified during the course of the Project (ADWG) (6 meetings per year)			
	4. Attend stakeholder meetings [Quarterly]			
<b>Program Management</b>				
<b>Activity 4.1 Project Administration</b>				
	1. Close out activities			
	2. Financial management of Project resources, efficient submission and reimbursement of invoices [Q1-Q3]			
	3. Update Project communication pieces as needed: pamphlet, poster			
<b>Activity 4.2 Project Coordination</b>				
	1. Meetings and coordination among Project implementers and with other stakeholders to ensure consistency and to avoid duplication of action [Quarterly]			
	2. Meetings with other USAID implementing partners in the area of agricultural policy reform to coordinate activities and communications outreach [Quarterly]			
	3. Advisory Committee meetings to discuss the Project [Q2, Q3]			
	4. Management Team meetings every 2 weeks			
	5. Ensure that Project outputs are available: Project website, DEC			
	6. Quarterly field visits with USAID			
<b>Activity 4.3 Reporting and Monitoring and Evaluation</b>				
	1. Collect indicator information for reporting purposes [Quarterly]			
	2. Financial Reports [Quarterly]			
	3. Quarterly reports [Q1, Qs]			
	4. Final report (including indicators) [Q3]			

## Appendix C: Year 5 Indicator Targets

[Strategic Objective]											
Indicator	Data Source	Baseline data		FY 2020 Annual Cumulative		Quarterly Status - FY 2020				Annual Performance Achieved to Date (in %)	Comment(s)
		Year	Value	Planned target	Actual	Q1	Q2	Q3	Q4		
<b>Intermediate Result (IR):</b>											
1.1 Increased agricultural competitiveness											
1.2 Improved business environment											
3.2 Improved responsiveness of targeted government institutions											
3.3 Increased capacity for civic advocacy, monitoring, and engagement											
<b>Sub-IR: 1.3 Improved agricultural policy environment</b>											
1. Number of high-quality research reports published having undergone peer review (internal/external) and disaggregated by type (working papers and journal articles).  Custom Indicator	Project records	2015	7	5							With approval of some research activities under Component 2, at least a working paper (WP) is expected to be published from each of the research topics identified in the current year.
2. Number of participants attending Project organized research and policy events  Custom indicator	Project records	2015	200	300							A maximum of 50 participants are expected per research and policy dissemination event. Six of such events are targeted between Q1 and Q2 with the

<p>3. Number of agricultural and nutritional enabling environment policies analyzed, consulted on, drafted or revised, approved and implemented with USG assistance (RAA)</p> <p>Standard Feed the Future Indicator (FTF) EG. 3.1-12</p>	Project records	2019	6	4							The states of Ebonyi, Delta, Benue and Niger are planned following the proposed dropping of the earlier Sub-IR which the Project is not expected to report on.
<p>4. Number of individuals participating in USG food security programs.</p> <p>Standard Feed the Future (FTF) Indicator EG.3.2</p>	Project records	2016	100	450							The set target follows that 3 trainings per month will be conducted for 25 individuals. The trainings are expected for Q1 and Q2 only since Project close out is expected in Q2.
<p>5. Number of individuals who have received USG supported degree-granting non-nutrition-related food security training.</p> <p>Standard Feed the Future (FtF) Indicator EG.3.2-2</p>	Project records	2016	3	7							
<p>6. Number of organizations with increased performance improvement with USG assistance.</p> <p>Standard Feed the Future (FTF) indicator 3.2-29</p>	Project records	2018	11	10							This is a new indicator adopted for the annual work plan in year 4.

<p>7. Number of agriculture policy communications developed and/or written for stakeholder consumption disaggregated by: Type of communication (policy brief, newspaper article, white paper, radio program, television program), main stakeholder group targeted (GON, private sector, civil society), and Lead in policy communication developed or written: GON, USG, private sector, civil society.</p> <p>Custom Indicator</p>	Project records	2018	18	5							<p>It is expected that at least a Policy Note will emanate from the research results of published research and improved performance of government institutions in developing or writing policy communications materials as well as output from Project Scholars.</p>
<p>8. Number of public private advocacy dialogues focused on policy that supports private sector investment.</p> <p>Custom Indicator</p>	Project records	2018	4	2							<p>The Project anticipates organizing 2 dialogues in Y5 related to private sector issues. This will include the close out conference expected in Q3.</p>
<p>9. Index (or scorecard) of quality of agriculture and food security policy processes in Nigeria, as measured by stakeholder evaluation to capture level of satisfaction and confidence.</p>	Baseline, mid-term and end-line	2016	1.206	1.568							<p>30% positive change from baseline</p>

10. 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.	Baseline, mid-term and end-line	2016	1.342	1.745						30% positive change from baseline
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## Appendix D: MSU Budget (USD) and Personnel

YR 5 - Oct 2019 to June 2020	Total Direct Costs	Indirect Costs	Total
MSU Personnel	\$162,183	\$42,168	\$204,351
Project Scholars	\$59,150	\$15,379	\$74,529
Dissemination Activities	\$67,900	\$17,654	\$85,554
Program Management	\$61,760	\$16,058	\$77,818
<b>Total</b>	<b>\$350,993</b>	<b>\$91,259</b>	<b>\$442,252</b>

Personnel	
Name	Role
Saweda Liverpool-Tasie	Principal Investigator
Oyinkan Tasie	State Ministry and University Outreach
Steve Longabaugh	Administration, NAPP Scholars
Laura Olabisi-Schmitt	Climate Change Outreach
Tom Reardon	Value Chain Training
Scott Frump	Business Office Manager: contracting, budgets
Chad Odom	Accounting
Nicole Walworth	Reimbursements, travel
Graduate Assistant	Data Analysis and Output creation
Graduate Assistant	Data Analysis and Output creation

## Appendix E: IFPRI Budget (USD) and Personnel

### IFPRI budget by Component

	Component 1	Component 2	Component 3	Project Management	Total
<b>Direct costs</b>	\$507,684	\$381,834	\$396,647	\$310,133	\$1,596,298
<b>Indirect costs</b>	\$81,411	\$54,274	\$81,411	\$54,274	\$271,371
<b>Total</b>	\$589,095	\$436,108	\$478,058	\$364,407	\$1,867,668
<b>Percentages</b>	<b>32%</b>	<b>23%</b>	<b>26%</b>	<b>20%</b>	<b>100%</b>

### IFPRI Budget (USD)

Budget category	TOTAL \$
Total direct labor	
<i>Salary and wages</i>	355,343
<i>Fringe benefits</i>	207,876
Locally recruited IFPRI Abuja Office Personnel	112,500
Consultants	109,000
Travel, transportation, and per diem	90,000
Facilities and supplies	328,300
Sub-awards	
Allowances	79,647
Participant training	90,000
Other direct cost	11,930
Indirect Cost	271,371
General & administrative costs	176,704
Material overhead	
<b>Total Estimated Cost</b>	<b>\$ 1,870,000</b>

## IFPRI Personnel

<b>Name</b>	<b>Role</b>
Dr. Kwaw Andam	Chief of Party (Project management and coordination, research, policy engagement)
Dr. Bedru Balana	Research, capacity building, and dissemination of research
Dr. Mulubrhan Amare	Research, capacity building, and dissemination of research
Dr. Suresh Babu	Capacity building and extension policy reform
Dr. Todd Benson	Research and dissemination
Dr. Hiroyuki Takeshima	Research and dissemination
Dr. Olivier Ecker	Research and dissemination
Mr. Hyacinth Edeh	Project operations, federal and state ministry engagement
Ms. Theodora Adene	Administration and logistical support
Ms. Amina Yakubu Bashir	Administration and logistical support
Ms. Medinah Ayuba	M&E and capacity building (Results based monitoring and evaluation)
Ms. Elisabeth Douglas	Communications and capacity building
Ms. Bisola Oyediran	Communications and capacity building
Mr. Namita Paul	Research support and capacity building for extension policy reform
Mr. Segun Fadare	Research support and capacity building
Mr. Adebayo Ogunniyi	Research support and capacity building
Ms. Motunrayo Oyeyemi	Research support and capacity building
Mr. Benjamin Onoja	Driver
Mr. Hashim Ibrahim	Driver



## Appendix F: Project International Travel

A total of 26 international trips will be undertaken by Project lead researchers and Project staff members in year 5, in line with activities under capacity building, dissemination and project management. Please see table below for further details.

Name of traveler	Number of trips	Activity
Dr. Titus Awokuse	1	Close out conference
Dr. Saweda Liverpool-Tasie	2	1) Dissemination activities 2) Close out conference
Dr. Tom Reardon	1	Close out conference
Dr. David Tschirley	1	Close out conference
Dr. Laura Schmidt-Olabisi	1	1) Dissemination activities. Close out conference
Dr. Oyinkan Tasie	1	Close out conference
Dr. Kwaw Andam	2	Project management and coordination
Dr. Bedru Balana	1	Research coordination
Dr. Mulubrhan Amare	3	Dissemination and capacity building
Dr. Suresh Babu	2	Dissemination and capacity building
Dr. Todd Benson	1	Dissemination and close out conference
Dr. Hiroyuki Takeshima	2	Capacity building, dissemination, and close out conference
Dr. Olivier Ecker	1	Dissemination
Mr. Hyacinth Edeh	1	Project operations
<b>Project Scholars<sup>3</sup></b>		Activity 1.3.1
Ms. Balaraba, Abubakar Sule	1	PhD student from Federal University of Technology Minna
Mr. Chukwudi, Charles Olumba	1	PhD student from Ebonyi State University, Abakaliki
Mrs. Obekpa, Hephzibah Onyeje	1	PhD student from University of Agriculture, Makurdi
<b>Project Scholars Research Supervisors</b>		Activity 1.3.1
Dr. Ayodeji Coker	1	Professor from Federal University of Technology Minna
Dr. Jonathan Oke Chukwu Alimba	1	Professor from Ebonyi State University, Abakaliki
Dr. Abu Godwin	1	Professor from University of Agriculture, Makurdi
<b>Total</b>	26	

<sup>3</sup> The PhD Project Scholars will return to Nigeria in Dec 2019, at the end of their 2<sup>nd</sup> and final semester at MSU.