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# **Historical Milestones of AFRE International Involvement in Teaching, Research, Outreach and Capacity/Institution-Building Activities: 1933 – 2023**

Eric W. Crawford, Michael T. Weber, and John M. Staatz  
Professors Emeritus

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For inquiries, please contact:

Eric Crawford, Professor Emeritus ([crawfor5@msu.edu](mailto:crawfor5@msu.edu)); Nicole Mason-Wardell, Associate Professor ([masonn@msu.edu](mailto:masonn@msu.edu)); Suzanne Teghtmeyer, Librarian ([teghtmey@msu.edu](mailto:teghtmey@msu.edu))

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## Acronyms

AA	Associate Award
AEC	Agricultural Economics (MSU Department)
AFGRAD	African Graduate Fellowship Project (USAID funding)
AFRE	Agricultural, Food, and Resource Economics (MSU Department)
AGLC	Africa Great Lakes Region Coffee
AGRA	Alliance for a Green Revolution in Africa
ANAPRI	Africa Network of Agricultural Policy Research Institutes
APRA	Agricultural Policy Research in Africa
ARDS	Alternative Rural Development Strategies
AREP	African Rural Employment Project
ASAS	Agricultural Sector Analysis and Simulation
ASPIRES	Agricultural Sector Policy and Institutional Reform Strengthening
ATI	Agricultural Transformation Initiative
AU	African Union
BAME	Bureau d'Analyses Macroéconomiques (ISRA)
BFS	Bureau for Food Security (USAID)
BHEARD	Borlaug Higher Education for Agricultural Research and Development
BMGF	Bill and Melinda Gates Foundation
CAADP	Comprehensive Africa Agriculture Development Programme
CABI	Commonwealth Agricultural Bureaux; CAB International (from 1986)
CACCI	Comprehensive Action for Climate Change Initiative
CEPPAG	Centro de Programas e Políticas Agrárias (Mozambique)
CESD	Centre for Economic and Social Development (Myanmar)
CFA	Communauté Financière Africaine
CGE	Computable General Equilibrium
CIAT	International Center for Tropical Agriculture
CILSS	Permanent Interstate Committee for Drought Control in the Sahel
CIMMYT	International Maize and Wheat Improvement Center
CIP	International Potato Center
COMESA	Common Market for Eastern and Southern Africa
COP	Chief of Party
CRSP	Collaborative Research Support Project (USAID)
CSA	Commisariat à la Sécurité Alimentaire (Mali)
CSNRD	Consortium for the Study of Nigerian Rural Development
CSUS	(Department of) Community Sustainability (MSU)
CTD	Conflict, Terrorism and Development
DAI	Development Alternatives, Inc.
DDL	Development Data Library (USAID)
DEC	Development Experience Clearinghouse (USAID)
EAC	East African Community
ECOWAP	ECOWAS Common Agricultural Policy
ECOWAS	Economic Community of West African States
EDI	Economic Development Institute (University of Nigeria & World Bank)

EPRC	Economic Policy Research Center (Uganda)
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FAS	Foreign Agriculture Service of USDA
FISP	Farmer Input Support Program
FMARD	Federal Ministry of Agriculture and Rural Development
FS II	Food Security II (Cooperative Agreement)
FS III	Food Security III (Cooperative Agreement)
FSA	Food Security in Africa (Cooperative Agreement)
FSG	Food Security Group (MSU)
FSHN	Food Science and Human Nutrition (MSU department)
FSM	Food Systems Management
FSP	Food Security Policy (Feed the Future Innovation Lab)
FSPP	Food Security Policy Project
FSR	Farming Systems Research
FSRP	Food Security Research Project (Zambia)
FTF	Feed the Future
FY	Fiscal Year
GAIN	Global Alliance for Improved Nutrition
GCFSI	Global Center for Food Systems Innovation (MSU)
GDP	Gross Domestic Product
GEMINI	Growth and Equity through Microenterprise Investments and Institutions
GFSS	Global Food Security Strategy
GISAIA	Guiding Investments in Sustainable Agricultural Intensification in Africa
GISAMA	Guiding Investments in Sustainable Agricultural Markets in Africa
GNP	Gross National Product
GRAIN	Grain Research and Innovation
HEPAD	Higher Education Partnership for Agricultural Development
IAAE	International Association of Agricultural Economists
IAAS	Institute of Agriculture and Animal Science (Nepal)
iAGRI	Innovative Agricultural Research Initiative (Tanzania)
IAPRI	Indaba Agricultural Policy Research Institute
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IER	Institut d’Economie Rurale
IFAD	International Fund for Agricultural Development
IFDC	International Fertilizer Development Center
IFPRI	International Food Policy Research Institute
IIAM	Instituto de Investigação Agrária de Moçambique
IL	Innovation Lab (USAID)
IMF	International Monetary Fund
INSAH	Institut du Sahel
IPR/IFRA	Institut Polytechnique Rural de Formation et de Recherche Appliquée (Mali)
IRAM	Institute of Research and Application of Development Methods (French consulting firm now called IRAM Development)
ISP	International Studies and Programs (MSU)

ISRA	Institut Sénégalais de Recherches Agricoles
ISSER	Institute for Statistical, Social, and Economic Research (Ghana)
KAMPAP	Kenya Agricultural Marketing and Policy Analysis Project
LAMP	Latin America Market Planning
LEAP	(Borlaug) Leadership Enhancement in Agriculture Program
LIFT	Livelihoods and Food Security Trust Fund
LSIL	Legume Systems Research Innovation Lab (MSU)
LSMS	Living Standards Measurement Study
M&E	Monitoring and Evaluation
MAFC	Ministry of Agriculture, Food Security and Cooperatives
MAFS	Modernizing African Food Systems
MAPSA	Myanmar Agricultural Policy Support Activity
MCC	Millennium Challenge Corporation
MDRI	Myanmar Development Research Institute (Myanmar)
MIS	Market Information System
MoAIWD	Ministry of Agriculture, Irrigation and Water Development
MOALI	Ministry of Agriculture, Livestock, and Irrigation
MoLF	Ministry of Livestock and Fisheries
MOU	Memorandum of Understanding
MOZCAPAN	Mozambique Policy Analysis and Planning Capacity for Improved Food Security and Nutrition
MSME	Micro, Small, and Medium-Scale Enterprises
MSTAT	Microcomputer Statistical Package
MSU	Michigan State University
MwAPATA	MwAPATA Institute (independent policy research think tank in Malawi)
NAAE	Nigerian Association of Agricultural Economists
NAP	National Adaptation Plan (re: climate change)
NAPA	Nigeria Agricultural Policy Activity
NAPAS	New Alliance Policy Acceleration Support (Malawi)
NAPP	Nigeria Agricultural Policy Project
NARS	National Agricultural Research System
NDC	Nationally Declared Contributions (re: climate change)
NDEA	National Defense Education Act (1958)
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organization
NJAU	Nanjing Agricultural University
OECD	Organization for Economic Co-operation and Development
OMA	Observatoire du Marché Agricole (Mali)
ORD	Organisation Régionale de Développement (Upper Volta)
OSU	The Ohio State University
P4P	Purchase for Progress (World Food Program)
PAPA	Projet d'Appui aux Politiques Agricoles
PASIDMA	Projet d'Appui au Système d'Information Décentralisé du Marché Agricole (Mali)
PEMEFA	Partnership for Enabling Market Environments for Fertilizer in Africa
PFID-FV	Partnership for Food Industry Development—Fruits and Vegetables



PiLAF	Innovation Lab for Policy Leadership in Agricultural and Food Security (Nigeria)
PL	Public Law (as in PL 480)
POLSAT	Policy Support for Agricultural Transformation (Malawi)
PRCI	Feed the Future Innovation Lab for Policy Research, Capacity, and Influence
PRPoSAM	Projet de Recherche sur les Politiques de Sécurité Alimentaire
PRESAO	Programme de Renforcement et de Recherche sur la Sécurité Alimentaire en Afrique de l'Ouest
PRISAS	Programme Régionale de Renforcement Institutionnel en Matière de Recherches sur la Sécurité Alimentaire au Sahel
PROMISAM	Project to Mobilize Food Security Initiatives in Mali
R&D	Research and Development
RCT	Randomized Control Trials
ReNAPRI	Regional Network of Agricultural Policy Research Institutes
ReSAKSS	Regional Strategic Analysis and Knowledge Support System
SA	Structural Adjustment
SADC	Southern African Development Community
SAM	Social Accounting Matrix
SAR	Senegal Agricultural Research
SAR II	Senegal Agricultural Research II
SARA-KEA	Support for Applied Research and Analysis in the Kenya and East Africa Region
SARP	Senegal Agricultural Research Project
SERA BORA	Better Policy (English translation; Tanzania project)
SG2000	Sasakawa-Global 2000
SIAC	Strengthening Impact Assessment in CGIAR
SIDA	Swedish International Development Cooperation Agency
SIMA	Sistema de Informação de Mercados Agrícolas (Mozambique)
SMS	Short Messaging Service
SRAI	Strengthening Regional Agricultural Integration
SSA	Sub-Saharan Africa
SUA	Sokoine University of Agriculture (Tanzania)
TAMPA	TEGEMEO Agricultural Monitoring and Policy Analysis (Kenya)
TAPRA	Tegemeo Agricultural Policy Research and Analysis (Kenya)
TIA	Trabalho de Inquerito Agrícola (Mozambique)
UILTCB	USAID Initiative for Long-Term Training and Capacity Building
UNOPS	United Nations Office for Project Services
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USG	United States Government
VPR	Venezuela Pathways to Recovery
WA	West Africa
WW II	World War II
ZJU	Zhejiang University (China)

## Introduction

The history of agricultural economics and related international activities in AEC/AFRE has roots all the way back to faculty activity in the early 1920s and 1930s in the agricultural economics section of the Economics Department, and in the Department of Farm Management in the College of Agriculture. When the standalone Department of Agricultural Economics (AEC) (now called Agricultural, Food, and Resource Economics (AFRE)) was formed in 1949 by joining these two groups, activities began to increase with new faculty interests, resources and changing international problems and opportunities. From the outset, AEC/AFRE tenure-stream as well as fixed-term faculty, graduate students and host-country research collaborators have been instrumental in carrying out high-quality and relationship-building outputs, and in gaining resources for these efforts.

The goal of this document is to summarize and provide perspective on the international activities of all AEC/AFRE department faculty, to the extent that they are known (see Annexes 1 and 2).<sup>1</sup> The focus is primarily on international development activities, or others that involved some formal institutional agreement, such as a grant funding agreement or Memorandum of Understanding, or similar arrangement under which department faculty collaborated with members of institutions in other countries. This will exclude the many cases where faculty co-authored publications with students, researchers or others from countries outside the U.S. However, where known, we have included instances where department faculty carried out scholarly work at institutions in other countries during sabbatical leaves, which typically involve formal agreements with the host country institution.

Since the 1970s and early 1980s, much of the externally funded international activity of department faculty, especially that funded by the U.S. Agency for International Development (USAID), has been coordinated by a self-organized group within the department that, in the early 2000s, came to be called the Food Security Group (FSG). FSG has been made up of fixed-term faculty and support staff who have been entirely supported by external grants, and tenure-stream faculty and graduate students who have been partially or entirely supported by those grants. Information on FSG fixed-term faculty is shown in Annexes 1 and 2. FSG-coordinated projects frequently involved the participation of other faculty in AEC/AFRE who did not self-identify as part of FSG. Reflections on the factors enabling the long-term success of FSG and on contributions by AEC/AFRE faculty to international program leadership are provided later in this document. Annex 5 includes information about FSG projects and external grant funding levels since the early 1980s as well as available information about internationally oriented grants received by other AFRE faculty and not administered under FSG. Additional information about FSG projects through September 2012 can be found on an [archived website](#). Information about more recent FSG projects can be found on the [current AFRE website](#).

Of necessity, this document does not provide an exhaustive enumeration of all international activities of the faculty mentioned and the details of their objectives and accomplishments, including publications. Where available, project and faculty profile websites are given in the document as a resource for readers who would like additional information. Faculty members who have web profiles are identified by last name only. First names are included for others.

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<sup>1</sup> To the extent possible, information is also provided about project personnel who were hired specifically for international project implementation and who had visiting faculty status even if they were never based on campus. Other individuals who had research associate or specialist status are included in cases where their involvement and contributions were especially significant, but the list of such individuals is not comprehensive. More information about project personnel is generally available through the project-specific web links.

## Notes for Readers

Those who read this document well after its current date may find that some of the hyperlinks no longer work if the site has gotten “lost” during future changes in the structure of the university or college web sites. In such cases, a recommended approach for finding the material is to copy the hyperlink address that you are seeking and search for it using [archive.org](https://archive.org) (also referred to as the [Wayback Machine](https://archive.org)), which does periodic automatic archives of global web sites. On the archive.org site, click on the Web menu option at the top left of the page then insert your copied hyperlink address into the Wayback Machine search box a bit further down on the left side of the page. If the web site is found, a timeline of archive dates will be shown. Click on a point in the timeline where an archive has been done, then in the calendar below click on a highlighted date for a given month, then click on one of the “snapshots” in the box that pops up.

## Evolution of Development Economics, 1930s to Present

Key events and people involved over AEC/AFRE’s enduring international history are highlighted in the next section, grouped into nine periods of roughly a decade each, as outlined immediately below. This categorization draws extensively on reviews by Eicher and Staatz (1998), covering the 1950s through 1998, and Thorbecke (2019), covering the 1950s up to 2017.<sup>2</sup> (See Annex 3 for a table summarizing Thorbecke’s review by period, with excerpts from his summary overview.) Additional material related to the 1960s and 70s was drawn from Byerlee (2024).

- [1933-1948](#): This was the (largely) pre-World War II period and prior to the independence of colonial territories, including many African countries. Economic development as a discipline had not yet emerged. Little focus was given to promoting economic development as distinct from the economic growth policies of individual sovereign countries.
- [1949-1960](#): Economic development emerged as a subdiscipline of economics during this period. Agriculture was not viewed as an important contributor to economic growth. Development was seen as a structural transformation involving a declining share of agriculture in national income and labor force. The role of “development” was to transfer resources (especially labor) from the traditional agricultural sector to industry, those being the two sectors included in Lewis’s 1954 model. Subsistence agriculture was not conceived as hiring labor or using reproducible capital but rather as providing an “unlimited” amount of labor to industry at the prevailing wage. Ideas of the “big push” and the “take-off stage” (Rostow, 1956) suggested that economic growth could be kicked off through an initial major public investment. Low-income countries were encouraged to focus on import substitution of manufactures rather than primary product exports and imports of manufactures, which Prebisch and Singer (1949) separately predicted would result in negative terms of trade effects. In the 1950s, it was also assumed that small

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<sup>2</sup> Background on development economics themes during the following periods is drawn primarily from two sources: (1) Staatz, John M., and Carl K. Eicher, “Agricultural Development Ideas in Historical Perspective,” Ch. 1 in Eicher and Staatz (Eds.), *International Agricultural Development*, 3rd Ed., Baltimore, MD: Johns Hopkins University Press, 1998, pp. 8-38, and (2) Thorbecke, E., “The History and Evolution of the Development Doctrine, 1950–2017,” Ch. 3 in Nissanke, M., and J. A. Ocampo (eds.), *The Palgrave Handbook of Development Economics*, 2019, pp. 61-108; [https://doi.org/10.1007/978-3-030-14000-7\\_3](https://doi.org/10.1007/978-3-030-14000-7_3). Note that works cited in this review section are not included in the References Cited, but can be found in Eicher & Staatz (1998), Thorbecke (2019), or Byerlee (2024).

farmers were not efficient decision-makers, and that Western agricultural technology and extension models could be directly transferred or “diffused” to low-income countries.

- [1961-1970](#): During this period, development planning was widely accepted as the means for achieving more rapid economic growth through public investment, initially in the industrial sector but increasingly in agriculture.<sup>3</sup> Economists began to see that growth in nonfarm employment depended on growth in surplus from agriculture, and that food shortages could choke off nonfarm growth. Johnston and Mellor (1961) argued that agriculture could contribute to structural transformation by providing labor, capital, foreign exchange, and food to a growing industrial sector, and a market for domestically produced goods. Thus, agriculture and industry were interdependent, following somewhat from Hirschman’s 1958 introduction of the concept of “linkages.” The “diffusion” model was called into question by research showing institutional and political barriers to rural development. Shultz’s 1964 book argued that small farmers were “poor but efficient,” and the problem was lack of profitable production innovations. Priority should therefore be given to investing in agricultural research and development (R&D) and strengthening of human capital. In the 1960s it was also observed that the main beneficiaries of early “Green Revolution” technologies were landlords and larger farmers in favorable ecological zones. Political economy and dependency models were introduced in this period, arguing that growth required changes in social and political institutions.
- [1971-1980](#): The 1970s saw a new focus on “growth with equity” and “basic needs,” motivated by observing that development benefits did not automatically “trickle down” in an equitable manner, owing to social and political relations within low-income countries, and the unequal economic power relations between low- and high-income countries. Other focus areas included research on agricultural sector modeling, rural-to-urban migration, employment generation, and product market performance, with an increasing recognition of the need for primary data collection as an input for research and program and policy design. Integrated rural development programs and farming systems research (FSR) programs were introduced in the 1970s, both attempting to broaden the range of factors considered in program and technology design to consider the objectives and constraints of target farm households. Research on the structure of farm households showed that they often did not reflect a “unitary” decision-making process, especially in large extended families with multiple sub-units. This led to increasing attention to gender roles and the differential impacts of development by gender.
- [1981-1990](#): During the 1980s, although FSR programs continued to be important, the dominant theme was macroeconomic policy reform and market liberalization. “Structural adjustment” (SA) programs supported by the IMF and World Bank emphasized the replacement of government-run production and marketing programs by private sector business activity. The first SA program started in Ghana in 1983 and by 1989 SA programs were underway in 32 of the 45 Sub-Saharan African countries. Also during this period, food security—emphasizing the importance of access to food as well as food supply—and sustainable agriculture and environmental impacts of development (including greenhouse effects) became key development issues. Food policy analysis attempted to address both production- and consumption-related incentives and constraints and to take into account important linkages between agricultural policies and macroeconomic and exchange rate policies. Social Accounting Matrix (SAM) studies were introduced, building input-output models that incorporated substantial data on agricultural sector and household activity. Empirical studies also showed

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<sup>3</sup> Todaro (1971), cited in Byerlee (2024).

that many agricultural households were net buyers rather than net sellers, hence were not benefited directly by higher producer prices. Significant investment was made in carrying out large-scale detailed single-visit surveys of household income and expenditure, including in Kenya, Mozambique, and Zambia. Surveys in Kenya and Zambia were panel surveys in which the same sample of households was covered in multiple years. The impact (or non-impact) of agricultural growth on nutrition grew in importance as a research topic.

- [1991-2000](#): During the 1990s, deregulation, liberalization, and reliance on markets received continued emphasis, although the negative effects of SA programs, especially on the poor, began to emerge. Interest arose in extending successful elements of East Asia's development to other countries. Institutional analyses (examining the impact of the "rules of the game" under which economies operate), including the importance of path dependency, became increasingly incorporated in the study of development policies. The implication of path dependency (i.e., that history matters) is that the "one-size-fits-all" approach to policy reform advocated in the early 1980s was unlikely to be successful. Rather, tailoring policies to fit individual country circumstances requires detailed local knowledge, implying the need to strengthen national policy capacity rather than relying heavily on external "experts." A key part of the institutional analyses focused on how transaction costs affect farmers' and traders' incentives to invest in technologies and exchange arrangements that could increase their incomes. Good governance and institution-building, specifically designed for local circumstances, were key objectives, along with poverty reduction, environmental sustainability (promoting a "doubly green revolution") and limiting the effect of global capitalism on income distribution within countries. Research expanded on the economics of corruption and social capital. There was growing use of total factor productivity analysis and computable general equilibrium (CGE) models, the former to understand key drivers of farm-level efficiency and the latter to understand the national or regional impact of adjustment policies. Large-scale expenditure surveys were carried out, some with detailed agricultural modules, including many supported by the World Bank and the Bill and Melinda Gates Foundation under the heading of Living Standards Measurement Study (LSMS). Significant demographic and health surveys were also undertaken. This period also saw a major increase in concern about soil fertility in Africa, addressed through a World Bank and FAO-led donor initiative. USAID supported multiple studies of the economic returns to agricultural research, as input for decisions about increased investment in agricultural research.
- [2001-2010](#): During this period, Millennium Development and Sustainable Development goals were established, incorporating a broader range of development objectives and goals for reducing poverty, inequality, and vulnerability through pro-poor growth strategies. Randomized control trials (RCT), supported by behavioral economics, emerged as a key method for rigorously determining the impact of actual or prospective development initiatives. Investment was made in extending household surveys to support longitudinal and sometimes panel data analysis. The major increase in food and commodity prices in 2007 and 2008 led many governments to channel resources into expanded domestic production of food crops, supported by major subsidy programs drawing heavily on the government budget.
- [2011-2020](#): This period saw much attention given to the pros and cons of government input subsidy programs initiated during the previous decade, on ways to improve their cost-efficiency in reaching the target audience of limited-resource smallholder farmers, e.g., through voucher programs, and on ways to improve yield response to fertilizer. Research on the impacts of climate change on agriculture and land use patterns expanded through modeling efforts that combined temperature and rainfall forecasts from climate models with crop growth models,

sometimes looking at economic implications as well. Biotechnology and conventional breeding were used to develop new crop and livestock varieties that would include characteristics such as drought or pest/disease resistance. This led to research and investment in strengthening improved seed production and marketing systems. Increasing emphasis was devoted to the links between agriculture and nutrition, prompted in part by observations that agricultural growth did not necessarily improve indicators of nutritional status. The onset of COVID-19 in early 2020 quickly led to efforts to monitor the spread and impact of the disease. Large-scale household surveys were carried out in many countries, including the introduction of mobile phone-based surveys after the emergence of COVID-19.

- [2021-2023](#) Research on the impacts of COVID-19 continued to receive major attention, with similar efforts to assess the impact of the war in Ukraine. New survey methods using mobile phones to contact respondents were further developed and implemented.

## Historical Periods of AEC/AFRE International Program Activities

### 1933 – 1948

In the mid-1930s, [Hill and Berg](#) (Department of Farm Management) and [Ulrey](#) (Economics Department, Agricultural Economics Section) traveled in Northern European countries. Ulrey also undertook study tours in England, Scandinavia and Germany studying cooperative farm organization. In 1939, [Hill](#) served 1 year as advisor to the Puerto Rico Agricultural Experiment Station. In 1941, John Hannah became MSU's 12th president. His vision was that MSU should serve not only the people of Michigan but also the world. This was a key source of inspiration and support for MSU units to become engaged internationally. By the time the standalone AEC Department was established in 1949, 6 MS and 2 PhD degrees had already been granted in the Economics Department focusing on international development- and trade-related issues. [Patton \(Harold\)](#), [Ulrey](#), [Hardin](#) and [Witt](#) were important advisors, among others.

### 1949 – 1960

With the formal establishment of the AEC Department, teaching, research and outreach activities and faculty greatly increased. [Boger](#), [Brown](#), [Hathaway](#), [Johnson](#), [Larzelere](#), [Mauch](#), [McBride](#), [Riley](#), [Sorenson](#), [Shaffer](#), [Ulrey](#), [Witt](#), [Wright](#), and [Vincent](#) were among the pioneer AEC faculty who began combining domestic with international activities focusing on trade, rural and agricultural development, and post-World War II recovery in Europe through the Marshall Plan. Many of these faculty served abroad in the U.S. Armed Forces in WW II and subsequently brought an international focus to their subject matter and problem-solving work in AEC. Half-way through this period, AEC longer-term international outreach and institutional development projects began: Witt to Brazil, [Ulrey](#) to U. Peshawar and later to [India Ranchi Ag. College, Bihar](#), Brown to OECD, Kyle and Wood to long-term assignments with the [first Colombia project](#), Wright to the [University of Ryukyus Project, Okinawa](#), and Mauch to the Far East to study the use of PL 480 funds and agricultural trade expansion prospects. Witt, Hathaway, and others began seeking funds from Ford Foundation, USDA/FAS, and others for international trade, PL 480 and related policy work. AEC received a five-year grant from the Ford Foundation to support development of AEC international programs. Witt also undertook a special assignment at MSU as temporary Director of Studies for International Programs at MSU, and in 1959 edited a major report "[Towards an International Dimension at MSU.](#)"

### 1961 – 1970

This decade was the big take-off period for international work in the department, with a focus on national economic development: [Witt](#), [Riley](#), [Johnson](#), [Eicher](#), [Hathway](#), [Sorenson](#) and [Stevens](#) increased

their international activities significantly. Five National Defense Education Act (NDEA) fellowships in international development were awarded to AEC. Riley and Wheeler worked for two years on the [Colombia project](#), three PhD students were approved for research in Colombia with Ford Foundation funding, and [Hathway](#) and [Sorenson](#) accepted long-term assignments in Western Europe related to trade issues and the common market. [McBride](#) took on a long-term assignment in West Pakistan with the [Academy for Rural Development](#) under a Ford Foundation grant. Wright accepted a 3-month assignment in Taiwan under an MSU/USAID Project. Stevens went to the [Academy for Rural Development](#) for a 5-month assignment. In 1964, Witt and Eicher began teaching a graduate course on “[Agriculture in Economic Development](#)” and edited a first-ever textbook for their class (used widely elsewhere). Vincent also edited a basic graduate agricultural economics book, entitled “[Economics and Management in Agriculture](#),” with contributions from 12 AEC colleagues drawing on their domestic as well as emerging international development and trade experiences.

One of the early strategies to increase international contacts and linkages was to participate in periodic meetings of the International Association of Agricultural Economists (IAAE). By 1964 one or more AEC faculty had attended 9 of the first 12 IAAE meetings (which started in 1929), with AEC Professor [Karl Wright](#) attending the 1949 meetings in Stressa, Italy, on a mission to extend an invitation for MSU to host the next [IAAE meeting in 1952 in East Lansing](#) which was accepted. The meetings were held on-campus with support of the Kellogg Foundation. [Johnson](#), [Bonnen](#), and [Eicher](#), among others in the Department, continued interactions with the IAAE over their careers.

In the 1950s, MSU President Hannah had supported MSU’s involvement in creating institutions of higher education in Brazil, Colombia, and Okinawa. Similar initiatives were then launched in Nigeria and Pakistan in the 1960s (see [here](#)). Of particular importance, the 1960s saw the beginning of AEC’s significant long-term involvement in Africa, led initially by Johnson and Eicher.<sup>4</sup> Three major initiatives started in the mid-1960s. The first was participation by AEC faculty in MSU’s major support for establishing the [University of Nigeria – Nsukka](#) 60 km from the regional capital of Enugu in Eastern Nigeria, with USAID, Ford Foundation, Carnegie Corporation, Rockefeller Foundation and other funding. A total of 79 MSU faculty were in residence in Nigeria, including four from AEC: Johnson, Eicher, and Vincent, with Kriesel on a fixed-term contract (Byerlee, 2024). An Economic Development Institute was established during the mid-1960s within the University of Nigeria, headed during this period by Johnson. The second initiative was establishment of the [Consortium for the Study of Nigerian Rural Development](#) (CSNRD), led by MSU from 1965-69. Johnson was named Director of CSNRD and [Dike](#), Deputy Director. The third initiative, begun in 1967 and undertaken in parallel with the work of CSNRD, was development of the [Nigerian Agricultural System Simulation Model](#), also led by Johnson along with [Byerlee](#) and Hayenga, and faculty from MSU’s Department of Electrical Engineering and Systems Science (Manetsch and Abkin) and Communications (Carroll).

In addition to the growing focus on Africa, Hathaway and Sorenson received a USDA grant to study the [impact of European Market on U.S. Agriculture](#), and Witt received a USDA grant to study [Food for Peace and trade](#). [Riley](#), [Shaffer](#), and others received a large USAID grant ([Latin America Market Planning—LAMP](#)) to study Latin American food markets and food systems. This work was undertaken jointly with the Marketing and Transportation Department of the MSU School of Business (Slater). [Riley](#) began teaching a graduate course on food and agricultural marketing using insights from the food systems work in Latin America and Sorenson edited a book entitled “[Agricultural Market Analysis: Development, Performance, Process](#)” with chapters from various AEC faculty, for use in teaching domestic and international courses. Johnson used domestic as well as international materials in the graduate course

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<sup>4</sup> See the thorough and very readable account of these origins in Byerlee (2024).

he taught on production economics and farm management. Over their careers at MSU, interacting with both domestic as well as international students, [Johnson](#) advised 93, [Shaffer](#) 58, [Riley](#) 54, [Witt](#) 57, [Eicher](#) 56, [Manderscheid](#) 52, and [Schmid](#) 52 graduate students as major professor.

The 1960s began a period of significant increase in the size of the AEC graduate program, with an emphasis on both domestic and international agriculture (see Table 1). International topics were the focus of nearly one-third of all students' work during the 1960s and then grew quickly to over 50 percent by the 1970s and 1980s. The high percentage of MS students emphasizing international research during the 1970s was partly a result of the [Sahel Masters Training Program](#) (1976-85), which brought a cohort of West African students to MSU. The total number of both PhD and MS students decreased notably since those high points, but the total number of students is still significant, and the relative importance of internationally oriented research has generally remained between 50 and 55 percent.

A similar growth in African graduate students occurred from a very low level in the 1960s to much higher numbers in the 1970s and 80s (

These trends occurred because of a USAID institutional strengthening grant to AEC that supported international graduate students (the "211d grant"), and because the other relatively large early AEC international projects all included funds for MS and PhD graduate students from the U.S. and from host countries to be given important research, outreach and implementation duties both on campus and in-country. This established a model that many other AEC international projects would utilize consistently in the future. Since the early 1960s and into at least the early 2000s, many returning Peace Corps Volunteers with international interests were attracted to graduate work in agricultural economics. Table 2 (from Byerlee, 2024) shows the growth in number of students with international interests by broad region (Africa, Asia, Latin America), for Africa in general, and by sub-region within Africa. Given the importance of in-country collaborative field data collection and analysis in most of these projects, young scholars with applied research tools and interests played an indispensable role. Following degree work in AEC/AFRE, many of these now-experienced young professionals found important domestic and international positions with universities, governments, research organizations and consulting firms.

From early on, fixed-term faculty have also been involved with graduate students and played an important role in most of the related in-country research and outreach activities. Many fixed-term faculty are also authorized to be major professors or guidance committee members for graduate students, thereby making significant contributions to the Department's graduate training program.



**Table 1. Yearly Average Number of AEC/AFRE MS Theses and PhD Dissertations, and Percentage Focused on International Economic and Agricultural Development and Trade, by Decade.**

Period	All AEC/AFRE PhD Dissertations Completed	Relative Importance of PhD Dissertation Topics per Period On International Development/Trade*	All AEC/AFRE MS Theses Completed (Plan A and B)	Relative Importance of MS Theses Topic (Plan A and B combined) On International Development/Trade*
	Yearly Average Per Period	Percent of All Dissertations Per Period	Yearly Average Per Period	Percent of All Theses Per Period
1949-1960	4.1	4%	10.7	3 %
1961-1970	11.6	30 %	9.5	27 %
1971-1980	14.5	47 %	15.0	82 %
1981-1990	11.1	56 %	20.0	62 %
1991-2000	8.4	63 %	11.3	52 %
2001-2010	5.5	56 %	12.3	53 %
2011-2020	8.2	52 %	10.6	53 %
2021-2022	9.5	42 %	6.0	50 %

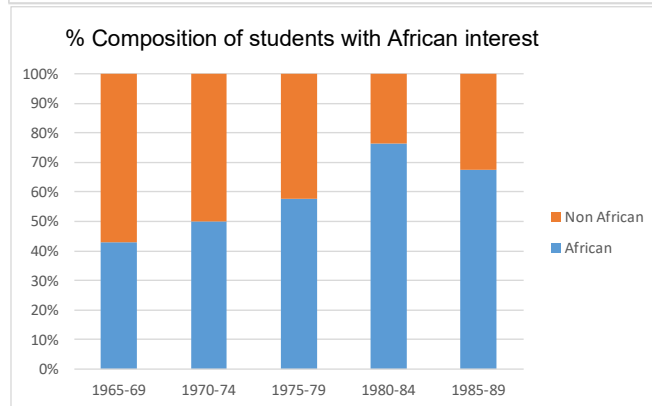
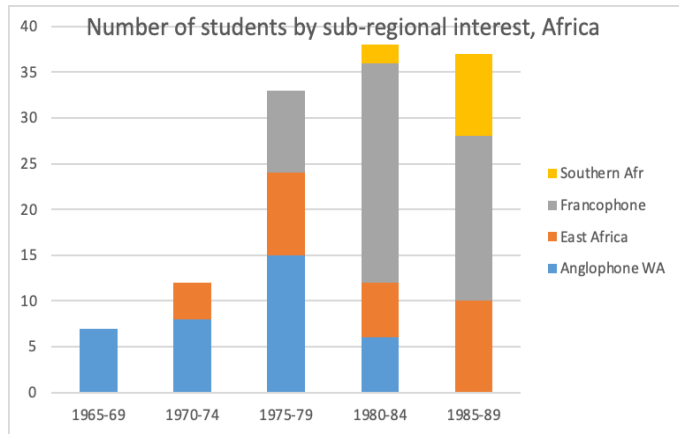
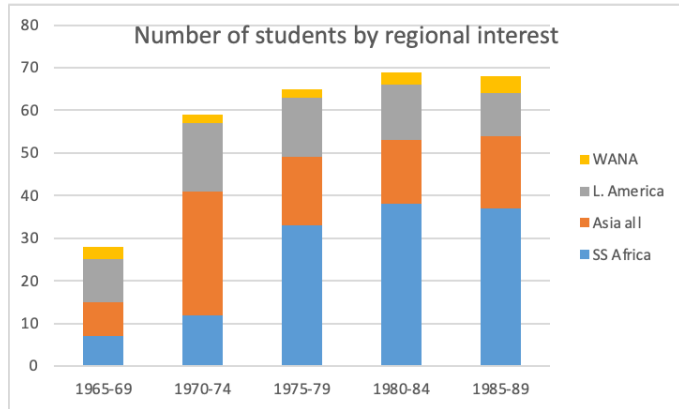
Note: International Development/Trade is broadly defined to include research done by both U.S. and international students in AEC/AFRE focused on any topic related to the analysis of international economic development or trade in areas of food, agricultural and environmental economics. Not included in this definition are dissertations and theses that focus exclusively on economic analysis of U.S. domestic food, agricultural and environment topics, regardless of geographical origin of the student. The modest decline in % international for PhD in the 2011-20 and 2021-22 periods may result partly from increased use of the three-essay format, with short dissertation titles such as “Three Essays in . . . ,” that specify the research theme or methodology but not the geographical data source or focus of the research.

Source: Lists of [MS theses and Plan B papers](#) and [PhD dissertations](#) on the [AFRE > Graduate](#) website, November 2023.

Table 2. Change in Graduate Student Interests by Geographical Region, 1965-89.

Based on MS thesis and PhD dissertation topics and student origins, Byerlee (2024) notes the following trends as illustrated by the graphs shown here:

- Top graph: A steady rise in number and share of African students, especially from 1976-80.
- Middle graph: A shift in source or focus of the students from anglophone West Africa to East Africa, and then to francophone Africa and Southern Africa.
- Bottom graph: A generally increasing share of students with interests in Africa.



Source: Byerlee (2024)

1971 – 1980

[Johnson, Riley](#) and [Eicher](#) extended work started earlier into a series of new related projects. Johnson, [Byerlee](#) (who joined AEC on a tenure-track position), and other faculty extended the Nigeria agricultural sector systems simulation project into multiple related projects on [sector analysis and simulation in Korea \(1971-73\)](#). Riley, Shaffer, and [Harrison](#) (who joined AEC on a tenure-track position in 1966) continued marketing system-related work of the LAMP project and [Weber](#) joined AEC to work on new projects in [Costa Rica](#) and [Colombia](#). Later Fienup and Weber participated as long-term university advisors/teachers on the [MSU Brazil project](#), and Fienup also coordinated a large MSU institution-building project with the [Nepal Institute of Agriculture and Animal Sciences, IAAS](#). Riley and Fienup also undertook a project on [Latin America Agricultural Sector Planning and Policy](#), and the AAEA contracted with Riley and Fienup to conduct an assessment of “[Training Agricultural Economists for Work in International Development](#).”

Following assignments in Nigeria, Eicher and [Liedholm](#) (Economics Dept.), joined now by [Byerlee](#), began additional long-term work in Africa, starting a large new research and institution-building project, [African Rural Employment Project/Network](#) (1972-75), later extended (to 1977) with the help of Byerlee, Sorenson and Vincent into a [second phase](#) in multiple African countries, most importantly Sierra Leone.<sup>5</sup> This work reflected a change in objective from economic growth maximization to employment generation, given rapid population growth and urbanization in Africa, as well as emphasis on food rather than cash crops, and on the importance of collecting primary data on farm and nonfarm activities at the household level to improve the empirical basis for planning (Byerlee, 2024). Building on AREP, Eicher obtained new funding for the [Poor Rural Household Technical Change and Income](#) project in Nigeria and Sierra Leone (1976-79), on which Byerlee and later Matlon were co-PIs. Also building on AREP, new activities began in the West African Sahel with the assistance of Tom Zalla, [Bingen](#) and [Manderscheid](#), also cooperating with the MSU Library and the African Studies Center through the [Sahel Secretariat/Documentation Center](#), and the [Sahel Master’s Degree training program](#). In the mid-1970s, Eicher obtained five years of funding for six African students annually through an allocation from the African Graduate Fellowship Project (AFGRAD) managed by the Africa-America Institute. As part of this Africa focus, mid-way through this period, the Department also took on a major institution-building project called [Integrated Rural Development, Eastern ORD, Upper Volta \(Burkina Faso\)](#), supported by Eicher, Matlon, and a large in-country team including AEC Ph.D. graduates David Wilcock and Edouard Tapsoba and Cornell Ph.D. Greg Lassiter, among others. This significant expansion of activity into francophone Africa, led by Eicher, was both made possible by and provided financial support for an influx of African students from the region and by U.S. students with French language skills (Byerlee, 2024).

Following a lot of visibility for successful efforts in Africa, in 1977 Eicher and a series of AEC and other MSU faculty (Weber and [Crawford](#), who both began AEC tenure-track positions in 1979), competed successfully for a grant under a new USAID long-term funding mechanism, and began work on the [Alternative Rural Development Strategies \(ARDS\) Cooperative Agreement](#), with focus in selected countries of Africa as well as Latin America and the Caribbean and Asia. The ARDS project, and the faculty members involved, constituted the starting point for the [Food Security Group](#) (FSG) within the department. FSG has been a self-organized group of tenure-stream and fixed-term faculty, joined frequently by others in AFRE and elsewhere at MSU, that has implemented a large portfolio of externally

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<sup>5</sup> Byerlee (2024) describes efforts under AREP to establish country-level programs in Nigeria, Ethiopia, and Democratic Republic of the Congo, all of which for various reasons were ultimately unsuccessful.

funded international research, capacity-building, and outreach activities in Africa, Asia, and Latin America. FSG projects have featured extensive involvement of graduate students and support from three to five grant-supported administrative staff. Information about FSG-managed international projects from the 1970s through the present is provided throughout the remainder of this document, as well as information about international activities undertaken by other AFRE faculty and managed by them and AFRE department office staff.

Also in the late 1970s, Liedholm with [Mead](#) (who joined AEC in 1979 on a fixed-term appointment), Herb Kriesel, Vincent, Shaffer, Weber and Yakob Fisseha from MSU African Studies, competed successfully for a large new Cooperative Agreement on [Off-Farm Employment and Rural Small-Scale Industries](#), focusing on research and outreach in Thailand (implemented jointly with the MSU [Alternative Rural Development Strategies](#) Project and Ohio State University Agricultural Finance Project), and in Bangladesh, Jamaica, Honduras, Sierra Leone, Bolivia, and Egypt.

### 1981 – 1990

In 1982, Eicher, Crawford, Fienup, Manderscheid and [Bingen](#) (Department of Resource Development, now Community Sustainability) began a 11-year USAID-funded institution-building project in Senegal ([Senegal Agricultural Research Projects I and II](#)), which provided support for the establishment of two new units within the Institut Sénégalais de Recherches Agricoles: a Department of Production Systems Research and Technology Transfer, and a Macroeconomic Analysis Bureau (BAME) focused on agricultural policy research. Bingen and Crawford led a multi-person in-country team that included three advisors in ISRA's Dakar offices,<sup>6</sup> advisors at three new regional research centers,<sup>7</sup> and three AEC PhD students resident for 18-21 months.<sup>8</sup> Crawford, supported by Malcom Versel, also completed a comprehensive annotated bibliography on agricultural development in Senegal for the period 1983-89, funded by USAID/Senegal.

Liedholm (Economics) and [Mead](#), with many colleagues and AEC graduate students, extended their prior focus for another eight years, implementing an additional small/micro enterprise and employment project under the Cooperative Agreement mechanism ([Small Enterprise Approaches to Employment](#)). An additional component of this work was conducted in collaboration with Paul Strassman (Economics) on [Small Enterprise Approaches to Employment/Housing](#). In the period 1985-1989, this group became subcontractors with Harvard University on a project entitled [Employment and Enterprises](#).

Eicher and Weber worked with USAID in 1984 to amend the ARDS Cooperative Agreement to extend its life to 1992 and to alter its focus to concentrate on issues of [Food Security in Africa \(FSA\)](#).<sup>9</sup> This became the first of five FSG-managed long-term (5 to 10 years) USAID-funded cooperative agreements focusing on food security-related research, capacity-building, and policy outreach (see Annex 5).<sup>10</sup> [Staatz](#) (1984),

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<sup>6</sup> Jim Bingen, Eric Crawford, and Mark Newman, a fixed-term project hire.

<sup>7</sup> Philippe Lambrecht at St. Louis in the Fleuve Region, Mulumba Kamuanga (MSU/AEC PhD 1982) and Joshua Posner at Djibélor in the Casamance, and Valerie Kelly at Kaolack in the Peanut Basin.

<sup>8</sup> Michael Morris (St. Louis), Valerie Kelly (Kaolack), and Frederic Martin (Dakar).

<sup>9</sup> The FSA "[Fact Sheet](#)" gives the project's duration as September 1984 to November 1992. A master copy of all FSA project fact sheets is available in [this archive](#).

<sup>10</sup> Each cooperative agreement provided core funding from USAID/Washington and buy-in or associate award funding from USAID bureaus or country missions. During the implementation of each cooperative agreement, FSG faculty also obtained grants from other sources to implement activities that were often related in theme and/or methodology to work implemented under the cooperative agreements. These are referred to as "related" projects in the tables given in Annex 5, which includes an overall summary of FSG projects and grant funding from 1983

[Bernsten](#) (1985), and [Oehmke](#) (1985) joined AEC in tenure-track positions to work partially on this activity, and (in the case of Oehmke) on the Senegal project. [Jayne](#), [Tschirley](#), as new AEC fixed-term appointments in 1990, and Shaffer became involved over the life of this project, and a large number of AEC graduate students and host country collaborators worked on the campus-based core agreement tasks and [in-country through a series of project add-ons](#) in Senegal, Mali, Malawi, Mozambique, Rwanda, Somalia, Tanzania, Zimbabwe/Southern Africa, Sahel West Africa/Regional, and on topics of nutrition and agricultural technology assessment.

Projects in Mali, primarily funded by USAID, started to be managed in 1985 by an in-country MSU team located at two offices in Bamako, one for work at the national level and another for work at the regional levels, the latter office located at the Institut du Sahel (INSAH). After the INSAH office closed in 2007, some regional work was managed out of the “national” office, which was housed in rented facilities but linked, via MOUs, to various national organizations. The national office periodically hosted staff supporting other AFRE or MSU projects and study abroad programs offered by units outside AFRE. The last MSU office in Bamako closed in 2021, after 35 years of continuous work in the country.

Given the length of time and breadth of activities implemented in and from Mali, it is hard to summarize them succinctly. However, since Mali represents a prime example of long-term AFRE/FSG engagement at the country level in Africa, some summary information is presented in Box 1 below. Other examples of long-term engagement in specific African or Asian countries are summarized briefly in Annex 4.

During 1983-86, Crawford and Fienup worked with the MSU [Farming Systems Project](#), and Weber, Bernsten, and Crawford cooperated with Russell Freed in the MSU Crop and Soil Science Department to refine the [Microcomputer Statistical Package \(MSTAT\)](#) created initially by Freed’s colleague, Dr. O. Nissen, Agricultural University of Norway. Crawford led the addition to MSTAT of a module to conduct economic analysis of agronomic trials. Riley and Fienup began implementing the [Kellogg International Fellows Program in Food Systems](#) with Kellogg Foundation support. Riley, Tschirley, [Robison](#), and Weber began working on an [Ecuador marketing research and policy analysis project](#) via a subcontract with Sigma One Corporation. Crawford taught two courses with strong international focus, one on farm management analysis and research (FSM 430/AEC 850), and one on agricultural benefit-cost analysis (AEC 863/865). [Bernsten](#) developed a new AEC graduate course on data collection and analysis (AEC 874) and taught an undergraduate course on World Food, Population, and Development (FSM 260). Staatz began teaching the AEC food system organization and performance course (AEC 841), with Weber adding a section on marketing in developing countries. In 1990, Eicher and Staatz published the second edition of their text book on [Agricultural Development in the Third World](#),<sup>11</sup> and Staatz also began teaching the AEC graduate international development course (AEC 861). [Myers](#) joined AEC in 1986 on a tenure-track appointment on research and teaching in the area of commodity market analysis (AEC 845) and agricultural policy, and gradually became an important contributor and graduate student advisor on many international projects.

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through 2022, and—for illustrative purposes—lists associate awards and related projects for each of these five cooperative agreements.

<sup>11</sup> This book was extensively revised in a third edition entitled *International Agricultural Development* and published in 1998 by Johns Hopkins University Press.

### **Box 1. Summary of Mali-based Project Activities.**

#### **National-level Activities**

Starting in 1985, national work focused on the impact of the gradual liberalization of agricultural markets in Mali on farmers, traders, consumers and the government. This work was funded by USAID/Mali. Over time, it evolved to a broader analysis of agricultural policy issues (e.g., helping the Malian government develop a new agricultural marketing strategy) as well as strengthening national and donor capacity to respond to market opportunities. Examples of the latter include:

- Helping the national agricultural research institute (IER) with its strategic planning process in the mid-1980s, leading to the creation of new divisions focusing on FSR and subsector economics.
- Supporting the creation of a national agricultural market information system (Observatoire du Marché Agricole (OMA)) and subsequently a regional network of such systems across West Africa).
- Helping each of Mali's 703 communes (townships) develop their own food security plans, which were used in creating food security plans at the cercle (county) and region (state) levels.
- Carrying out a national agricultural sector assessment that served as the basis for USAID's five-year agricultural strategy in 2010.
- Organizing West Africa regional market outlook conferences, which in turn led to the creation of a regional agricultural traders' network and a regional network of market information systems.
- Providing technical support to the Malian government for its creation of the Food Security Secretariat (CSA), a policy arm directly reporting to the President on food security issues.
- Working with regional trader organizations to open the livestock trade between Mali and Guinea, which had previously been largely blocked due to conflicting animal health policies.
- Supporting the incorporation of economics training at the Institut Polytechnique Rural de Formation et de Recherche Appliquée (IPR/IFRA).

Over time, the USAID-funded Mali program expanded and attracted other donor support, including from the Syngenta Foundation for Sustainable Agriculture, the Hewlett Foundation, IFAD, the World Bank, the Bill and Melinda Gates Foundation, and EU Commission and the French consulting firms Issala and IRAM. Examples of themes included analyses of capacity and barriers to regional agricultural integration and globalization, impact of the CFA (Communauté Financière Africaine) franc devaluation, and impact of different models of contract agriculture on farmers, agro-entrepreneurs and consumers. The program also involved technical support to Mali's national CAADP team in developing its national agricultural investment plan and to ECOWAS in the development of its regional plan.

A key component of the work was its very close link with policy makers (thanks mainly to relations developed by [Dembelé](#)), leading to lots of informal policy extension work and responding to urgent requests for analyses on specific issues from both the Malian government and USAID.

#### **Regional-level Activities**

Work with INSAH on regional agricultural issues began in 1987 and ran through 2005, managed by an MSU office based at INSAH (headed initially by Josué Dioné and subsequently by Mbaye Yade). The program developed a regional network of researchers across the CILSS member countries, initially focusing on comparative studies of the impact of market liberalization in different countries and scope for expanded regional trade. Subsequent analyses included the impact of international trade agreements on West African agriculture and policy options for water pricing throughout the region. Later, the program evolved to also include strengthening INSAH's capacity to make its research products and those of its partner NARS more accessible through its website and expand visibility of its regional database on approved regional pesticides for West Africa.

#### **Impacts on Human Capital**

Many of the participants in the Mali projects went on to high-level policy positions. Three examples are Josué Dioné, who became chief agricultural development and food security advisor to the African Union, Nango Dembelé, who became both Food Security Commissioner and Minister of Agriculture of Mali, and Oumou Camara, who became IFDC Regional Director for West and Central Africa.

In 1985, Weber and Shaffer obtained a USAID grant to conduct agricultural policy analysis in Rwanda, as a complement to a U.S. Bureau of the Census project started in 1980 to support annual national agricultural surveys. In 1987, Weber obtained USAID funding through a five-year subcontract with Development Alternatives, Inc. (DAI) for further agricultural surveys and related policy analysis. Lassiter was recruited to serve as the in-country chief of party (COP) of this project.

In 1988, [Loveridge](#) was hired in a fixed-term position to extend results from his Ph.D. research to policy-makers in Rwanda and to provide technical assistance to a cooperative management training center in Rwanda and to marketing information, food and nutrition policy research projects in Mali.

In 1990, an important new focus for the food security work began on [technology assessment studies](#) led by [Oehmke](#) and [Crawford](#), covering many international as well as domestic projects and involving a number of AEC graduate students. The number of AEC MS and PhD degree completions with international focus continued at a high level in this period, with about half or more of AEC graduate students working in this area (Table 1).

In 1990, under the USAID-funded [Food Security in Africa](#) Cooperative Agreement (1984-92), MSU launched a two-year project in Mozambique that was the beginning of a multi-decade engagement. The project collaborated with the Directorate for Rural Economy in the Ministry of Agriculture. Objectives were to analyze the effect of recent market adjustments on incentives facing traders and producers, and to assist the Government of Mozambique to establish in 1991 a pilot national market information system (Sistema de Informação de Mercados Agrícolas, SIMA). MSU's in-country project leader during this period was Raul Varela. Tschirley and Weber provided on-campus backstopping.

## 1991 – 2000

A new ten-year phase of the Mozambique project (1991-2001) was launched under the Food Security II (FS II) Cooperative Agreement (see below). The project was led by Weber, with assistance from Tschirley, who had recently returned from a three-year long-term assignment in Ecuador. The Mozambique project's goal was to extend the MIS and to undertake rural household, trader, and firm-level research evaluating the effects of institutions, technologies, and policies on household incomes, food security and broader agricultural productivity. Tschirley, working with Weber, two graduate students, and in-country partners, led research and programmatic backstopping for Mozambique through 1995. During this time Tschirley and Weber served as major advisors and thesis advisors for Maria Nita Dengo, the first Mozambican woman to get an advanced degree in agricultural economics. Tschirley moved to Mozambique in 1995 to serve as in-country director for three years. [Boughton](#) was recruited in 1998 to replace Tschirley as the in-country project coordinator. [Liedholm](#) and [Mead](#) competed in 1994 for their last large small-enterprise project that began in 1989 ([Growth and Equity Through Microenterprise Investments and Institutions – GEMINI](#)).<sup>12</sup> Various external reviews of the contributions from research on off-farm and microenterprises, as well as the market system and food policy work at MSU, have documented the [fundamental empirical and conceptual contributions](#) made on this topic by over 25 years of efforts of AEC faculty, students and host country collaborators.

[Strauss](#) was hired via a joint Econ/AEC Department tenure-track appointment, strengthening development and household modeling courses and research advising for AEC graduate students. The ten-year USAID-funded [Food Security II Cooperative Agreement](#) (FS II) project, led by Weber and Staatz, began in 1992 as follow-on to the earlier Food Security in Africa project with a focus on food security and food system development in Africa (see [FS II fact sheet](#)). Long-term work continued in some of the

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<sup>12</sup> This was a USAID-funded project on which MSU was a subcontractor to the consulting firm Development Alternatives Incorporated (DAI).

African countries where FSA had worked and [additional country-level projects](#) were undertaken. A number of new faculty joined AEC via fixed-term appointments to work on FS II projects: [Kelly](#) (1991), [Howard](#) (1994), [Donovan](#) (1999), and [Maredia](#) (2000). In 1992, Weber and colleagues obtained a five-year associate award under FS II for further survey and policy analysis in Rwanda. Dan Clay<sup>13</sup> was recruited as the in-country COP until 1994 when the genocide forced termination of the project and evacuation of project personnel.

The new focus begun under the Food Security in Africa Cooperative Agreement (FSA) on [technology assessment](#) and economic returns to agricultural research continued in the FS II period, led by [Oehmke](#), [Crawford](#), [Kelly](#) and [Howard](#). [Reardon](#) (hired in a tenure-track position in 1992) provided leadership, working with Crawford and Kelly, for research on farm household productivity. Starting around 1999, a number of AFRE faculty ([Bernsten](#), [Swinton](#) (hired in 1991), Reardon, Kelly, and Crawford) began related work on agricultural technology development and transfer issues, especially factors affecting farm-level demand for new technology intended to boost farm productivity and/or arrest declining soil fertility. Work in Latin America was undertaken in cooperation with the [Bean and Cowpea Collaborative Research Support Program](#) headquartered at MSU. See Annex 5 for details on related projects funded through FS II associate awards and grants from other donor agencies.

In 1995, Jayne, Weber, and colleagues (Shaffer, Howard, and Kelly), received USAID funding for a three-year [grain marketing research project in Ethiopia](#). Uniquely, the project was brought to an early end by the Ethiopian government when the project's initial findings showed that the government's marketing and food distribution programs were targeted primarily to the home region of prominent officials.

In 1997, Jayne and colleagues (Tschirley and [Smale](#), among others) obtained a two-year USAID-funded subcontract from Egerton University in Kenya under the Kenya Agricultural Marketing and Policy Analysis Project (KAMPAP) to work with the Tegemeo Institute to implement a national farm household survey, carry out related analysis of household production and marketing activities and incomes, and host selected Egerton/Tegemeo staff for PhD training at MSU. This was followed by the two-year Tegemeo Agricultural Marketing and Policy Analysis (TAMPA) project (1999-2001), during which a second national survey was conducted in 2000 using the same panel of households as in 1997.

Also in 1997, Weber and colleagues obtained a five-year associate award under FS II for continued survey and policy analysis work in Rwanda. David Tardif-Douglin, recruited by subcontractor DAI, served as in-country COP. Donovan, Kelly, Reardon and AEC graduate students contributed to this project.

In 1999, [Reardon](#), [Weatherspoon](#) and [Allen](#) also assumed key roles in the [Partnership for Food Industry Development Project—Fruits and Vegetables \(PFID-FV\)](#), implemented by the MSU Institute for International Agriculture. This work focused on rapid restructuring of the food system in many developing countries in Asia, Latin America and Africa, and implications for small-farmer participation in emerging profitable markets. [Ricks](#) contributed his expertise in strategic planning with U.S. horticultural industry groups, bringing together growers, marketing and processing firms, and government personnel to develop policies and programs to benefit the industry overall.

Staatz, Weber and other involved faculty also led FS II outreach efforts to assist MSU President McPherson and other U.S. and African leaders to establish the [Partnership to Cut Hunger and Poverty in Africa](#). At one point, the Partnership had five African presidents as co-chairs: Konaré of Mali, Kufuor of Ghana, Obasanjo of Nigeria, Museveni of Uganda and Chisano of Mozambique, along with Robert Dole

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<sup>13</sup> Clay was appointed first in the Department of Sociology, then became Director of the Institute of International Agriculture within CANR, then was appointed in the Department of Community Sustainability.



and Rep. Lee Hamilton of the U.S. The Partnership was influential in getting major donors, such as USAID and the World Bank, to increase their attention and funding to agriculture and also had an influence in persuading the African Union to pursue CAADP. Research and policy analysis done under the various Food Security Cooperative Agreements helped support the Partnership's advocacy for a greater focus on Africa. AFRE faculty member [Howard](#) eventually became the director of the Partnership.

During the 1990's Swinton undertook agricultural and natural resource management research on soil conservation in Ethiopia and pesticide risks in Zimbabwe with doctoral students on Rockefeller Foundation support. During a 1999 sabbatical at the International Potato Center (CIP) in Lima, Peru, Swinton researched links between poverty and farmer investments in natural resource conservation.

In 1999, [Low](#) joined the department and led policy analysis training within the Mozambique food security project. Her later work focused on nutrition–agriculture linkages and on promotion and impact evaluation of orange-fleshed sweet potatoes in eastern and southern Africa (work for which she was eventually awarded the World Food Prize in 2016). Also in 1999, Reardon served as Fellow in the Program for Academic Cooperation, FAO Regional Office for Latin America and the Caribbean, in Santiago, Chile.

In 2000, Maredia became Associate Director of the Bean/Cowpea Collaborative Support Project, continuing this assignment at 50-80% time through 2009. [Yamano](#) joined the Department in 2000 as a fixed-term faculty member, undertaking research on food aid in Ethiopia as part of the FSA cooperative agreement, and on credit, land distribution, and HIV/AIDS impacts in Eastern and Southern Africa.

## 2001 – 2010

In 2001, Jayne and colleagues obtained a third grant from Egerton University for the TAMPA II project, which ran from mid-2001 to mid-2005 and which included a third wave of the national panel survey conducted in 2004. In 2005, new funding was received for the Tegemeo Agricultural Policy Research and Analysis ([TAPRA](#)) project, running from mid-2005 to mid-2009, which included a fourth wave of the national panel survey in 2007, as well as continued PhD training in AEC.

In 2001 and 2004, Oehmke received grants for impact assessment studies of international agricultural biotechnology projects. In 2003, [Hanson](#), who joined AFRE in 1988, began serving as AFRE Department Chair. In this position, which he held through early 2014, Hanson was a strong supporter of the Department's international activities. Beginning in 2009, Hanson also assumed the position of Assistant Dean in International Studies and Programs at MSU.

During this decade, beginning in 2002, Reardon was involved as a budgeted co-PI in 25 grant-funded international projects. Topics addressed included strategies for promoting nonfarm employment in rural areas, the structure and changing nature of value chains in Africa and Asia, fruit and vegetable industry development, vertical coordination in Asian food systems, food policy analysis, horticultural marketing in Beijing, private sector agrifood standards in Latin America, fruit and vegetable marketing in Guatemala and Nicaragua, strengthening institutions to improve the investment climate, and perhaps most influentially, the rise of supermarkets in Asia, Latin America, and Africa. In 2009, Reardon was the first agricultural economist to be invited to the World Economic Forum (WEF) in Davos.

In 2002, [Walker](#) was hired as a fixed-term professor under the Mozambique food security project. He helped provide senior leadership for capacity building, research and policy analysis. Robison obtained a grant in 2002-03 to compile an annotated bibliography on social capital.

In 2003, [Joshi](#) (hired in a tenure-track position in 2000 to focus on environmental and natural resource management and policy) obtained the first of three grants to study cellulose-based biofuels in Canada,

work that stretched through 2010. In 2003 and 2004, Schmid received funding for research on improved maize marketing for food security in Southern Africa, and on rural development in Zambia. Also in 2003, [Weatherspoon](#) (hired in 1998) received a grant for research on private-sector agrifood standards in global markets. He then received a series of grants from 2003 to 2005 under PFID-FV, for research in India, Nicaragua, Azerbaijan, and southern Africa, and two related grants on the rise of supermarkets and private-sector standards.

Under Staatz's and Weber's Co-Directorship of the Food Security Group, AFRE successfully competed for a new [Food Security III \(FS III\) Cooperative Agreement](#), running from 2002 to 2012. Earlier FS II work initiated in [Mali, Sahel Regional, Mozambique, Zambia and Kenya](#) continued. In Mozambique, Boughton remained as in-country coordinator until moving to the MSU campus in 2004, [Ellen Payongayong](#) and [Margaret Beaver](#) were recruited as survey data specialists to assist with national household data collection, and [Cynthia Donovan](#) joined in providing campus-based support, then moving to Mozambique for the period 1999-2001. New country-level work began in Malawi and Southern Africa via COMESA and CAADP. Both Payongayong and Beaver provided indispensable support, which stretched over two decades, for design and analysis of field surveys and implementation of related training for enumerators, faculty, and graduate student researchers—Payongayong especially in Mozambique and later in Myanmar and Beaver especially in Africa. Their involvement was also vital for building the capacity of FSG research collaborators and their home institutions. In 2004 and 2005, under FS III, Weber led the preparation of a [Food Security and Food Policy Information Portal for Africa](#), which provided information on African countries and regional organizations and on key development topics, as well as online professional skill-building resources to support policy analysis.

In 2004, [Thornsby](#) (hired in 2002) received funding for research on markets for U.S. tart cherries in Poland, with follow-up grants in 2005 to study the tart cherry trade between the U.S., Serbia, and Montenegro, and in 2006 to identify capacity development in the U.S. to promote tart cherry exports to China. She received other grants in 2006 to develop a multidisciplinary protocol for assessing climate impacts, and to evaluate competitiveness in global horticulture markets. In 2009, she received grants to examine sales opportunities in mainland Europe and distribution channels for the Philippines bakery industry.

In Kenya, the USAID-funded [TAPRA I](#) project (through a subcontract from Egerton University, working directly with the Tegemeo Institute of Agricultural Policy Analysis and Development), ran from mid-2005 to mid-2009 and was the fourth in a series of projects that started with KAMPAP (1997-98), TAMPA (1999-2001), and TAMPA II (2001-2005).

In 2005, Crawford obtained a three-year grant for the [Higher Education Partnership for Agricultural Development \(HEPAD\)](#), joint with the Ohio State University (OSU). USAID funded HEPAD as one of several projects designed to test out more cost-effective graduate training programs to strengthen African universities. HEPAD supported six M.S. and Ph.D. students at MSU and six at OSU for degree programs in agricultural economics, community sustainability, and food science and nutrition, joint between MSU/OSU departments and three universities in Kenya, Tanzania, and Uganda, with field research conducted in the students' home countries.

In 2006, there was an FSG leadership transition, with Boughton and Crawford succeeding Weber and Staatz as FSG Co-Directors. A more decentralized leadership model was adopted as a strategy to share management responsibilities more broadly between the FSG Co-Directors and lead PIs on major projects and to attract new funding. Also in 2006, [Black](#) (hired in 1970) received a grant under the Agents of Change: A Multidisciplinary Protocol for Assessing Climate Impacts, Vulnerability, and Adaptation project in Germany, Hungary, Poland, and Ukraine. During his career, Black also served as a valuable resource

for faculty studying farm productivity and risk management topics, especially in African countries. [Chapoto](#) was hired in a fixed-term position in 2006 under FS III. He undertook a long-term assignment with the USAID-funded [Food Security Research Project](#) (FRSP) in Lusaka, Zambia, where his work focused on food policy research, capacity building and outreach.

In 2006, Crawford, Kelly, and Jayne received support from the World Bank to prepare synthesis reports on promoting fertilizer use in Africa using “smart” subsidies, and to prepare related content for the 2008 World Bank Development Report.

During the 2000-2010 period, [Maredia](#) helped develop a number of technology impact evaluation projects focused on Africa, Asia, and Latin America. This included evaluation of the impact of new varieties produced under MSU’s [Bean/Cowpea Collaborative Research Support Program](#) (CRSP), including work directed by Swinton in Ecuador, Nicaragua, and Honduras. Maredia also led impact evaluations of projects funded by USDA, USAID, Millennium Challenge Corporation (MCC), World Bank. This work was expanded in the following decade.

During 2004 and 2005, [Hoehn](#) (tenure-track hire in 1984) obtained grants to carry out work under the PFID-FV project. At other times in his career, Hoehn worked on projects in [Egypt, Brazil, Uruguay, Venezuela, and Mexico](#). [Loveridge](#) (beginning a tenure-stream position in 2000) received several international grants in 2006-2007 to undertake work on climate change in Eastern Europe, to administer a Borlaug LEAP fellowship, and to internationalize teaching on rural community development. [Lupi](#) (hired in 1999) received a grant in 2006 to develop a systems approach to integrating economics and ecology for managing forest landscapes, with a global dimension.

From 2007 to 2009, Gow occupied a tenure-track position focused on marketing and agribusiness. He participated in the PFID-FV project, obtaining related grants including one in 2008 to support a PFID workshop. In 2007, [Jin](#) joined AFRE in a tenure-system appointment with interests in the broad areas of microeconomics of international agricultural development. Jin collaborated with several other AFRE/FSG faculty on impact assessment and land tenure research topics. This included grants from the Millennium Challenge Corporation (MCC) for research on land titling in Lesotho and Mozambique and on program impact evaluation in East and Southern Africa beginning in 2008 and running through 2014, including impact evaluation of school feeding programs in Mozambique, funded by USAID under a trilateral project with Brazil. Jin obtained another grant in 2009 to study lessons from China on Land and Labor Institutions in the Process of Rural Development.

In 2008, Jayne led an AFRE/Food Security Group effort to compete successfully a new large 2008-2012 grant from the Bill and Melinda Gates Foundation for Guiding Investments in Sustainable Agricultural Markets in Africa ([GISAMA](#)). The objectives addressed by the GISAMA project’s team of five faculty members were to identify investment opportunities to improve smallholder household incomes, to [disseminate research results through policy outreach](#), and to build local capacity for research and policy analysis within five countries: Kenya, Malawi, Mali, Mozambique, and Zambia. Beginning in 2010, a three-year FS III associate award project was also undertaken with the Bureau for Food Security on [climate change](#) under the leadership of Crawford and [Olson](#) (MSU Dept. of Telecommunications, Information Studies and Media).

In 2009, Staatz, along with Boughton, [Diallo](#), and Haggblade, received funding from the Syngenta Foundation for the [Strengthen Regional Agricultural Integration in West Africa](#) project (SRAI 1).

Reardon began work on food systems in Asia in cooperation with the International Food Policy Research Institute (IFPRI) and others. He implemented a project on value chains in Bangladesh ([Value Chains in](#)

[Bangladesh](#)), and documented much of this work with an important book published by the Asian Development Bank and IFPRI (Reardon et al., 2012).

In 2010, Swinton obtained a grant from the Howard G. Buffett Foundation for an economic impact assessment of an integrated rural development project in Nicaragua. Also in 2010, [Adelaja](#) (hired in 2004)<sup>14</sup> shifted from his U.S.-oriented work on land policy to focus on Africa-related topics including land transactions and “land grabbing,” causes and consequences of conflict, terrorism and insurgency, and effects of conflict on economic progress.

In 2009 and 2010, [Ross](#) (hired in 2008) provided support to work carried out under the Mali associate award under FS III to help create Mali’s first undergraduate degree program in agribusiness and agricultural economics at the Institut Polytechnique Rural et de Recherche Appliquée (IPR-IFRA). Staatz, Crawford, and [Dembélé](#) were also involved in this effort.

Beginning in 2010, MSU’s FSRP team in Zambia initiated steps to create the Indaba Agricultural Policy Research Institute (IAPRI), in order to transform the policy research capacity embodied in FRSP into a formal Zambian institution that would be sustainable over the long run. This effort was led by Jayne and had the backing of FSRP’s main donors, USAID and the Swedish International Development Cooperation Agency (SIDA). IAPRI was incorporated as a Zambia organization in 2011 with Zambian leadership, and officially launched in 2012, by which time IAPRI had obtained multi-year funding directly from USAID and SIDA.

## 2011 – 2020

In 2011, Jin obtained new World Bank grants to study land-related issues in China and India, and a new USDA/MCC-funded project to evaluate Site-Specific Land Policy Intervention in Lesotho, and to undertake impact evaluation and capacity-building activities in Mozambique and Benin, funded by USDA/MCC. Both the Lesotho and Mozambique projects were implemented jointly with Maredia and faculty in MSU’s Department of Community Sustainability (CSUS). These projects continued through 2014-15. (See Annex Table 5.7 for a list of externally funded projects during this decade, with web links.)

In 2011, Crawford, Minde, and Haggblade obtained what became six years of funding from USAID/Tanzania through the [Innovative Agricultural Research Initiative](#) (iAGRI), where MSU joined a consortium led by OSU that supported capacity strengthening in food and agricultural development research and policy in Tanzania, especially at the Sokoine University of Agriculture (SUA). An AFRE team led an initial needs assessment, and faculty from AFRE, CSUS, and Food Science and Human Nutrition (FSHN) advised students doing field research for MSU M.S. and Ph.D. degrees under iAGRI.

During this decade, Reardon was involved in 21 grant-funded international projects, with an increasing and influential focus on actors in the midstream of value chains, between producers and consumers. From 2012-14, Reardon was a resident scholar for part of the year at Renmin University, China, where he engaged in teaching and research. In 2014, Reardon was resident in Myanmar for about six months and served as Chief of Party for the USAID/Burma-funded associate award from mid-September to mid-December.

[Benfica](#) joined the department in 2011 as a fixed-term Associate Professor to work on food security-related projects, especially in Southern Africa and Asia. [Cunguara](#) also joined in 2011. Under the food security project in Mozambique, he took a position in the Instituto de Investigação Agrária de Moçambique (IIAM). [Mason](#) joined the department in 2011 in a fixed-term position on long-term

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<sup>14</sup> Adelaja established MSU’s Michigan-oriented Land Policy Center in 2006 and served as Director until 2011.

assignment to do food policy research and outreach at IAPRI in Lusaka, Zambia, under a USAID-funded project.

In 2011, Adelaja accepted an invitation from the Nigerian Presidency to serve as Special Adviser (SA) on Economic Intelligence, which ultimately resulted in a five-year sabbatical leave of absence from MSU. This role grew to include an additional role as Director of Economic Intelligence at the Office of the National Security Adviser (ONSA). Adelaja founded the Presidential Initiative for the Northeast (PINE), serving as PINE's chairman from 2013 to 2016. He led the planning for revitalization of Northeast Nigeria after its devastation by the Boko Haram insurgency. In 2015, Adelaja led the development of the Buhari Plan for the Northeast and design of the Presidential Committee on the Northeast Initiative (PCNI), PINE's successor organization, to which he was appointed as technical consultant in 2016.

In 2012, Crawford, [Derksen](#) and other MSU co-PIs received a five-year USAID grant for the Borlaug Higher Education for Agricultural Research and Development ([BHEARD](#)) Program. This project supported M.S. and Ph.D. training for over 30 agricultural researchers from over 7 countries in Africa and Asia.<sup>15</sup> In 2012, Jayne and colleagues obtained a further grant for collaboration with the Tegemeo Institute in Kenya under the [TAPRA II](#) project, which ran from mid-2012 to the end of 2017. Co-PIs on this grant included [Muyanga](#), Smale, Mason-Wardell, Tschirley, and Crawford. Work focused on monitoring trends and patterns in rural livelihoods; policy research, analysis, and advocacy; and capacity building (both short-term and longer-term degree training).

[Sitko](#) was hired under in 2012 to work on projects in eastern and southern Africa. He contributed to the establishment of IAPRI in Zambia, to research under FS III in Angola and Madagascar during 2012-15, on sustainable agricultural productivity in Mozambique (2017) and on similar topics in Tanzania under FSP (2018). During much of this period, he was resident in Zambia as part of AFRE's team supporting IAPRI.

Also in 2012, funding from USAID/Cambodia was received to support an impact assessment of USAID's Feed the Future programming that aimed to link agriculture to nutrition outcomes. The [Cambodia](#) project (September 2012 through March 2017) was led by [Murari Suvedi](#) and other faculty members from MSU's Department of Community Sustainability, joined by Maredia and Benfica from AFRE.

In October 2012, Boughton and Haggblade obtained a two-year USAID buy-in to FS III under which Haggblade led a [food security and agricultural development needs assessment](#) with agricultural sector program recommendations for the newly re-opened USAID mission in Burma. This resulted in a significant multi-year program of investment in the agricultural sector by the mission's Economic Growth Office through later FSG and MSU/AFRE/IFPRI projects. Activities in Myanmar were initially conducted by working through the Myanmar Development Research Institute (MDRI), and in particular its Centre for Economic and Social Development (CESD). The Food Security III Leader agreement ended in 2012, but FS III activities continued for longer periods in selected countries ([Mali](#), [Mozambique](#), [Myanmar](#), and [Zambia](#)) under FS III associate awards and buy-ins.

In 2012, [Haggblade](#), Tschirley, and Minde began a stand-alone project with IFAD funding on [Modernizing African Food Systems \(MAFS\)](#). Staatz, Haggblade and [Thériault](#) also began an IFAD-funded project ([Improving the Inclusiveness of Agricultural Value Chains in West Africa: The Role of Market Segmentation and Emerging Sub-Channels](#)).

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<sup>15</sup> In mid-2014, the directorship of this project was assumed by Frederik Derksen from the Department of Food Science and Human Nutrition, when Crawford began serving as Director of MSU's Global Center for Food Systems Innovation (GCFSI).

[Dillon](#) joined AFRE in a tenure-track position in 2012 and began teaching the graduate course on field survey research methods. Dillon developed projects on household labor supply and education decisions, the interrelationship of agriculture, health and nutrition, the [impacts of malaria on labor productivity](#), and social network effects on technology adoption, primarily in Africa, for which he received eight external grants during the period 2012-2018. [Liverpool-Tasie](#) also joined AFRE in a tenure-track position, and later began cooperating with the [GISAIA](#) project (Guiding Investments in Sustainable Agricultural Intensification in Africa), a second large Gates Foundation grant received by Jayne and others. GISAIA ran from 2013-17 and involved a team of 9 faculty members who worked with 10 African universities, institutes, and government ministries in seven countries (Kenya, Zambia, Tanzania, Nigeria, Malawi, Burkina Faso, and Mali) to implement policy and programmatic strategies that help African farmers become more productive and food-secure, and to build the capacity of national policy institutes. [Liverpool-Tasie's](#) research at the time focused on differential effects of policies and poverty reduction strategies on farmer behavior and welfare. She served as PI or co-PI on numerous other projects during this period on topics related to strengthening agricultural and food policy processes and value chains in Nigeria, women's land rights in Tanzania, food-agriculture-nutrition linkages, and impacts of COVID-19 in Nigeria.

In 2012, Lupi received a grant to study algal blooms in Lake Erie, incorporating impacts on Canada. [Shupp](#) (hired in 2007) received a grant for work during 2012-2014 on the potential contribution to Great Lakes watershed sustainability of payments for agricultural ecosystem services. [Uaiene](#) was hired (2012) to take a position within the Mozambique food security project, where he was based at the Instituto de Investigação Agrária de Moçambique (IIAM) and served as in-country Chief of Party. At that time, steps were taken to strengthen the involvement of the University of Eduardo Mondlane faculty in national agricultural policy analysis by establishing the Centro de Programas e Políticas Agrárias (CEPPAG) within UEM. CEPPAG became fully operational only in 2014.

Another significant FSG-supported institution-building initiative, led by Jayne, was the establishment of the Regional Network of Agricultural Policy Research Institutes (ReNAPRI) in 2012. This network was coordinated initially through IAPRI in Zambia, joined by six other similar policy research institutes in eastern and southern Africa. Jayne's experience with a project funded by the Bill & Melinda Gates Foundation had convinced him of the importance of helping to create national policy research institutions that external donors would be confident in funding directly, rather than through external institutions. ReNAPRI subsequently expanded to 16 members including 1 in West Africa, has achieved operational and funding success, and in 2023 was renamed as the Africa Network of Agricultural Policy Research Institutes (ANAPRI).

In 2013, Maredia and Boughton started a CGIAR-funded project to strengthen project impact assessment ([SIAC](#)). The Food Security Group in AFRE successfully competed for a new long-term USAID grant to establish the [Feed the Future Innovation Lab for Food Security Policy \(FSP\)](#), to be implemented jointly with IFPRI and the University of Pretoria. FSP had a worldwide focus and involved significant activity in Asia and to a lesser extent in Latin America. FSP was led by Boughton as Project Director, later succeeded by Maredia. In addition to members of the core AFRE/FSG team, FSP co-PIs included [Awokuse](#) (hired in 2015) and [Ortega](#) (hired in 2013) in AFRE and [Clay](#) and [Schmitt-Olabisi](#) from the Department of Community Sustainability. AFRE/FSG also began new associate awards in [Malawi](#) and [Myanmar](#) under this cooperative agreement. [Mason](#) (later Mason-Wardell) entered a tenure-system position in 2013 and continued working with the Food Security Group under FS III and FSP on research and capacity-building projects in [Kenya](#), Tanzania, and [Zambia](#). Jin contributed to FSP projects in Tanzania and to the GAIN project in Kenya, and contributed to research on emerging vertical

coordination in Asian value chains under projects led by IFPRI and other donors. (See Annex Table 5.4 for a full list of associate awards and buy-ins implemented under FSP, which ran through 2019.)

In 2013, Ortega began work on projects looking at the safety of imported foods, the pork marketing chain and market opportunities for U.S. livestock products in China, and nutrition aspects of value chains in Malawi. His research in China examined the impacts of the largest acquisition of a U.S. company by a Chinese firm and helped industry marketing efforts following the reintroduction of U.S. beef in the Chinese market after a decade-long ban.

In 2013, [Porter](#) joined AFRE in a fixed-term position. She obtained a grant to study the role of social networks in adoption of new sorghum seed in Burkina Faso, which ran through 2016. Also in 2013, Staatz and colleagues received additional funding from the Syngenta Foundation for [phase II](#) of the SRAI project in West Africa, and Tschirley and colleagues (Benfica, Uaiene, Cunguara, and Donovan) received a four-year USAID grant for the Mozambique Policy Analysis and Planning Capacity for Improved Food Security and Nutrition Outcomes ([MOZCAPAN](#)) project.

In 2013, Tschirley and Reardon took up roles in the new MSU [Global Center for Food Systems Innovation \(GCFSI\)](#), established in late 2012 and housed within the Dean's office of International Studies and Programs. GCFSI was funded by USAID's Global Development Lab under their Higher Education Solutions Network, whose goal was to enlist university-based innovation centers to help solve big development problems. Tschirley and Reardon helped prepare one of three major white papers. [Me-Nsope](#) (hired in a fixed-term position in 2015) and Ortega also participated in GCFSI studies and Me-Nsope led gender research activities in Malawi. Crawford served as Director of GCFSI from mid-2014 through 2021, while continuing in his role as FSG Co-Director.

During this period, a number of fixed-term faculty were engaged to work on campus or in-country on AFRE international projects ([Cunguara](#), [Diallo](#), [Mather](#), [Minde](#), Gideon Mlay, [Muyanga](#), [Porter](#), [Smale](#), [Tasie](#), [Temé](#), [Thériault](#), [Uaiene](#), and [Yeboah](#)). Key research topics for these faculty (among others) were agricultural input subsidy programs (Mather, Theriault, Muyanga), youth employment and entrepreneurship (Yeboah), development policies and programs in West Africa (Diallo, Temé, Theriault, Smale), Nigeria (Tasie), Mozambique (Cunguara, Mlay, Uaiene), and Kenya (Muyanga, Smale), and role of medium-scale farms (Muyanga), and impact assessment (Porter).

Also in 2013:

- Jin and Donovan, in collaboration with the University of Florida, obtained a three-year grant from USAID for a trilateral project involving universities in Mozambique, the U.S., and Brazil, to reduce poverty and hunger in Mozambique through improved agricultural productivity and nutrition. Jin and Donovan led an impact analysis of a school feeding program in Mozambique.
- Maredia led two new multi-year impact assessment projects, [one on activities of the Bean/Cowpea \(later Dry Grain Pulses\) CRSP](#) (involving Crawford and [Reyes](#), hired in 2012), and another to [evaluate the Yaajeende agricultural development project in Senegal](#) with Kelly as co-PI.
- [Chamberlin](#) (hired as a fixed-term Assistant Professor in 2013) accepted a long-term assignment in Lusaka, Zambia with the Indaba Agricultural Policy Research Institute (IAPRI), with funding from the [third phase](#) of the Food Security Research Project. He conducted collaborative research and training on microeconomic analysis of smallholder livelihoods in Zambia and elsewhere in sub-Saharan Africa.
- [Wu](#) joined AFRE on a 25% tenure-stream appointment (75% in Food Science and Human Nutrition). Her focus was on food safety and food-related health risks. She received grants for

research on mycotoxins as risk factors in childhood growth (2013), insect adaptation to transgenic insecticidal corn (2015), training caregivers to enhance early child neurodevelopment in the prevention of Konzo disease from toxic cassava in the Democratic Republic of Congo (2019-20), and human health risks of aflatoxin M1 in dairy products (2020-21).

- [Zhao](#) (hired in 2008) received a grant for research on the Influence of short-term financial incentives on social norms and behaviors. Later, he received grants for quantifying human and climate impacts on wetland ecosystems in the Lower Mekong River Basin (2017-20), for research on conservation tillage using linked econometric and process models (2020), and for studying the dynamics of food, energy and water in Kazakhstan and Mongolia (2020-22).
- A buy-in to FSP was received from USAID/Tanzania for the Agriculture Sector Policy and Institutional Reforms Strengthening (ASPIRES) project, running from July 2013 to January 2020. (Complementary funding was provided by the Bill and Melinda Gates Foundation.) [Nyange](#) was the in-country project leader, supported by [Minde](#) in Tanzania and Tschirley at MSU. This project supported the in-country Policy Analysis Group, organized annual agricultural policy conferences, conducted policy analysis and outreach, and provided short-term training to government personnel. A local NGO, also named ASPIRES, was formed to create the local institutional capacity to carry forward similar work after the project's end.
- Donovan and Kelly received a subcontract from World Vision for an [Impact Evaluation of Raising Incomes of Smallholder Farmers in the Central Highlands of Angola](#).
- [Simpson](#) (hired in 2012) received grant funding in 2013-14 to lead a component of a West Africa vulnerability assessment.

In April, 2014, Hanson stepped down as AFRE department chair and was named Associate Provost and Dean of International Studies and Programs (ISP) at MSU. In this role, he continued to support AFRE international activities and their connections with other MSU international programs. In September, 2014, Dillon received funding from IFPRI for a nine-month project in Pakistan entitled [Agricultural Productivity Growth and Food Security](#), which provided implementation and research support for round 3.5 of the Rural Household Panel Survey. Later in 2014, Jin, Maredia, Porter and [Chung](#) (from CSUS) received a grant from CIP/DFID entitled "Scaling up Sweet Potato through Agriculture and Nutrition (SUSTAIN)" to evaluate factors affecting the scaling up of orange fresh sweet potato in Kenya, Mozambique, Rwanda, and Zambia (2014-2018).

In September 2014, Boughton and colleagues received a [5.5-year associate award](#) from USAID/Burma under FSP. Its focus was on studies of agricultural and rural livelihoods in all major agro-ecological zones of Myanmar. [Belton](#) was hired and became resident long-term in Myanmar from 2014 to 2018. Boughton moved to Myanmar in early 2016 to expand capacity strengthening for the new civilian government. The project established an Agricultural Policy Unit in the Ministry of Agriculture, Livestock and Irrigation, prepared an agricultural research investment plan and an agricultural research decentralization pilot program, and collaborated with Yezin Agricultural University Department of Agricultural Economics.

[Nankhuni](#) was hired in 2015 as Chief of Party for the USAID-funded New Alliance Policy Acceleration Support ([NAPAS](#)) project in Malawi, continuing in this role through its completion in 2018. In 2015, Ortega joined the African Great Lakes Coffee project, led by [Clay](#) in the Department of Community Sustainability. Jin received grants from the World Bank for evaluating the effects of Vietnam's Land Law (2015-20). In 2015, Liverpool-Tasie led design and implementation of the USAID-funded Nigeria Agricultural Policy Project (NAPP), running from 2015-20. NAPP involved collaboration with many government and other institutions, including universities in Ibadan, Niger, Kebbi, and Ebonyi states.



In mid-2015, Boughton, Belton, and colleagues received what would become eight years of funding under the United Nations Office for Project Services (UNOPS) Livelihoods and Food Security (LIFT) Agri-food Value Chain Development Project. Work was designed and implemented in close coordination with the USAID/Burma-funded associate award to FSP, with a focus on value chain studies led by Belton.

In 2016, Adelaja returned to MSU. Along with Howard, he carried out the Nigeria component of the Agrifood Youth Employment and Engagement Study. He then participated in the follow-up [Agricultural Youth Lab project](#), funded by the Mastercard Foundation (MCF) in 2017 with implementation in Nigeria and Tanzania.<sup>16</sup> He also launched an internationally focused and multi-departmental program on Conflict, Terrorism and Development (CTD). Under this initiative, Adelaja hired [Kappiaruparampil](#) in 2017 as a post-doctoral Research Associate, who became a fixed-term Assistant Professor in 2020. CTD's four research areas were: (a) understanding conflicts, especially terrorism, and its impact on agriculture and food security; (b) understanding the effects of conflict, climate and other shocks on economic transformation; (c) understanding the role of resilience in agricultural and economic development, and (d) developing new theoretical models of growth and development that incorporate shocks and resilience. Since 2016, the research program resulted in approximately 20 articles in prestigious journals.

In 2016, Jayne, Muyanga, Liverpool-Tasie and Awokuse received a five-year grant from the UK Department for International Development (DFID) for a consortium project entitled [Agricultural Policy Research in Africa](#) (APRA). MSU's work under the consortium focused on two main areas: agricultural commercialization synergies and trade-offs between small-scale and medium-scale farms in Nigeria, and rapidly changing farm size distributions in Ghana, Nigeria, Tanzania and Zimbabwe.

In 2017, Mason launched a new project, the Partnership for Enabling Market Environments for Fertilizer in Africa ([PEMEFA](#)), leading a consortium of five partners to improve African small farmer access to and use of fertilizers by establishing national and regional fertilizer policies and regulatory frameworks that facilitate increased private sector participation in fertilizer value chains. A follow-up grant in 2020 supported work into 2021. Also in 2017, [Awokuse](#) (hired in 2015) received a four-year grant for research collaboration with the Institute of Development Studies, Nigeria.

In 2017, Jin began a three-year leave of absence at Zhejiang University (ZJU) in China. In addition to conducting research, he taught courses, mentored students, and advised on approaches to strengthening the graduate program in agricultural economics. During Jin's residence at ZJU, other AFRE faculty, including Awokuse, Ortega, Robison, and Shupp, visited to make presentations and to work with ZJU students and faculty members. Ortega was made an adjunct faculty member by ZJU. These activities have led to a productive linkage between AFRE and ZJU, with continuing research collaboration, visits to AFRE by several ZJU PhD students, and one AFRE PhD and one MS graduate being hired at ZJU.

In 2018, Tschirley led a group of AFRE/FSG faculty (including Jayne, Mason-Wardell, Theriault, Liverpool-Tasie, Maredia, Mather, Reardon, and Crawford) to seek a five-year follow-on grant to FSP, received in May 2019, which established the Feed the Future Innovation Lab for [Food Security Policy Research, Capacity, and Influence \(PRCI\)](#). Tschirley serves as Director of PRCI, which has an African and Asian scope. PRCI is led by MSU in partnership with IFPRI, Cornell University, and the African Network of Agricultural Policy Research Institutes (ANAPRI). The project's goal is "to enhance the ability of local policy research organizations to conduct high-quality food security policy research and influence food security policy more effectively while becoming increasingly self-reliant." Its major components focus on strengthening the capacity of agricultural policy research institutes, doing collaborative food security-oriented research, and strengthening the influence of policy research and analysis on policy-making.

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<sup>16</sup> This project ended by mid-2018 when MCF withdrew its funding.

PRCI includes significant support for policy research institutes not previously engaged under FSG projects, including the Institute for Statistical, Social, and Economic Research (ISSER) in Ghana, the Innovation Lab for Policy Leadership in Agricultural and Food Security (PiLAF) in Nigeria, and the Economic Policy Research Center (EPRC) in Uganda.

In 2018, Awokuse began participating in PRCI projects with funding through 2021. Also in 2019, Awokuse received a 22-month grant from USDA to work with South Carolina State University to study the impact of international trade policy on global food security and South Carolina agriculture. In 2018, [Caputo](#) (hired in 2016) and [Nakasone](#) (hired in 2015) received funding for work, along with Tschirley, Maredia and others, under the [Global Alliance for Improved Nutrition](#) (GAIN) project in Kenya funded by a consortium of international donors. In 2018, Porter began a two-year involvement with the GAIN project in Kenya and obtained a grant to study models of financial inclusion in Pakistan. In 2018, Ortega was invited to provide [congressional testimony](#) on China's agricultural policies regarding trade, investment, safety and innovation. He also began a three-year involvement in the GAIN project in Kenya. In 2019, he began participating with others in a two-year FSP associate award to assess food security-related issues and potential solutions in Venezuela.

The [Nanjing Agricultural University \(NJAU\)-MSU Joint Institute and dual-degree agreement](#) was announced in September 2019. The program included dual-enrollment opportunities for undergraduate and graduate programs in food and agriculture. AFRE is one of four departments offering M.S. and Ph.D. degrees through this program, which is coordinated by Perry Ng in the Department of Food Science and Human Nutrition, and within AFRE by Associate Chairperson and Graduate Program Director, Mason-Wardell, with significant student and research mentoring provided by Jin. Additional information can be found on the [CANR](#) and [ISP](#) websites.<sup>17</sup>

Also in 2019, Reardon served as technical advisor and lead author for AGRA's flagship report, "Africa Agriculture Status Report 2019," whose subtitle "The Hidden Middle: A Quiet Revolution in the Private Sector Driving Agricultural Transformation" reflects Reardon's influential research focus. Reardon also received a three-year appointment as Extraordinary Professor at the University of Pretoria, South Africa.

[Olabisi](#), hired in 2017, received a grant from MSU's Legume Systems Innovation Lab in 2019 with Maredia to study value chain linkages between markets in West Africa. In 2020, he received a National Science Foundation (NSF) grant for research on Trade and Global Economic Shocks: A Network Perspective.

In 2019, [Goeb](#) was hired to join the [MAPSA](#) project team in Myanmar. In 2020, Nilar Aung and Cho-Cho San were recruited from Myanmar to work as in-country research associates under the MAPSA project.<sup>18</sup> In October 2019, a five-year subaward was received from the IFPRI-led [Myanmar Agricultural Policy Support Activity](#) by Belton, Boughton, Goeb, Maredia, Aung, San. Work involved monitoring the agrifood system during COVID-19 and the following 2021 military coup.

Also in 2019, with funding from the Foundation for a Smoke-Free World's Agricultural Transformation Initiative (ATI), MSU began a project to establish the [MwAPATA Institute](#) for agricultural policy research and analysis, led by Jayne and Muyanga. In addition to serving as the first Director of MwAPATA,

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<sup>17</sup> Partial funding for this program, and for the ZU student and faculty visits to MSU described above, came from the China Scholar Council and from the universities involved.

<sup>18</sup> Because of a change in department policy regarding grant project-specific recruitment, Goeb, Aung, and San were hired as research associates rather than as fixed-term assistant professors. For consistency with previously hired fixed-term junior faculty members, recently hired research associates are counted as AFRE faculty members here.

Muyanga also led a related program of agricultural policy research and outreach ([POLSAT](#)) in conjunction with the Ministry of Agriculture. In 2020, Mason-Wardell received a grant for research on site-specific soil data management in Ethiopia and Niger.

In 2020, [Valle de Souza](#) (hired in 2017) received a grant to study farming of insects as a feed source in aquaculture in Nigeria. Jin received a World Bank grant for analysis of climate change and factor markets in Ukraine. In 2020, Porter received funding for research in Ethiopia on the potential for crop monitoring to improve trust in credit programs.

## 2021 – 2023

In 2021, [Burke](#) was hired to serve as lead PI for a USAID-Malawi grant to support the Mwapata project team in Malawi, where he had previously served as Research Director. Goeb moved to Malawi to join this project as an Assistant Professor and [Wineman](#) was recruited as a Senior Research Fellow to provide additional analytical support.<sup>19</sup> Olabisi and Maredia launched a project in Nigeria and Niger, funded by MSU's Legume Research Innovation Lab, to [promote trade integration in regional legume markets with mobile technology](#). Crawford provided management support as lead PI from mid-2021 to mid-2022. Liverpool-Tasie designed and led the USAID-funded Nigeria Agricultural Policy Activity (NAPA), starting in 2021, and in 2022 obtained a major new grant from the Bill & Melinda Gates Foundation to undertake actionable research to support African micro, small and medium enterprises (MSMEs) to supply affordable, safe, and nutritious food. Crawford also began to play a larger role in the Grain Research and Innovation (GRAIN) project in Afghanistan, a buy-in to GCFSI from USAID/Afghanistan that was managed by the GCFSI Deputy Director, Kurt Richter. Crawford provided support for the statistical and economic analysis of the 20 wheat agronomy trials conducted in Afghanistan under GRAIN from 2018-19 through 2020-21, and led the preparation of three annual research reports, a report on six trials carried out in two or three years, and subsequent submission of all wheat agronomy research reports and datasets to USAID during 2021 to 2023.

In 2021, Valle de Souza received a grant to pilot integrated insect-to-fish farming systems in Malawi. [McKendree](#) (hired in 2017) received a grant for a cross-cultural exchange with South Korea on cross-bred cattle markets. Ross won a 2021 grant to study supply chain management in China.

In 2021, under continuing or new grants, Reardon contributed to projects on agriculture and nutrition in Tanzania, various activities under PRCI, data analysis in Nigeria, and study of private sector responses to COVID-19 in the potato and fish value chains in Kenya. Ortega's research on Chinese consumer retail channels and consumer demand for food quality helped to inform the role that wet markets play in the Chinese food system in the wake of the COVID-19 pandemic. His subsequent work in this area focused on evaluating emerging consumption trends in China and assessing preferences for alternative proteins, gene-edited products, and healthy diets, supported in part through his adjunct appointment in the School of Public Affairs at Zhejiang University in China.

In 2021 and 2022, Caputo led the design and implementation at MSU of an [international summer school](#) on the general topic of "Survey Design and Experimental Methods in Applied and Agricultural Economics." The target audience was broad: young scholars, experienced academics, and practitioners who wish to enhance their skills.

In 2021, Jayne co-edited AGRA's flagship report, "Africa Agriculture Status Report 2021, entitled "A Decade of Action: Building Sustainable and Resilient Food Systems in Africa." In 2022, Jayne co-edited

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<sup>19</sup> Wineman was promoted to fixed-term Assistant Professor in 2023.

AGRA’s Africa Agriculture Status Report 2022, entitled “Accelerating African Food Systems Transformation.”

Also in 2021, Crawford and Maredia received a 4-year grant from USDA (funded by USAID/Kenya-East Africa) entitled “Analytics Support in Kenya/East Africa” (initially referred to as “Support for Applied Research and Analysis in the Kenya and East Africa Region” ([SARA-KEA](#))). This project was intended to provide USAID/Kenya-East Africa with research and analysis that supports program planning and implementation. This project is implemented jointly with Purdue University and the Tegemeo Institute in Nairobi (led by John Olwande). Maredia is the lead PI and AFRE co-PIs include Haggblade, Minde, and Mather. Research under this project included field surveys in two zones, led by Muyanga and Jayne, to update information about the number of medium-scale farms and the potential spillover benefits of their activities elsewhere in the agricultural sector. Awokuse stepped down as AFRE chairperson and accepted the position of Associate Dean for Research and Strategic Programs in International Studies and Programs. Swinton became AFRE chairperson, continuing to support its international programs during 2021-23.

In 2022, Jin received follow-up funding for his work on climate change and factor markets in Ukraine. Another World Bank grant to Jin in 2023 supported research on the productivity effects of a public works program in India. [Gammans](#) (hired in 2020) became a co-PI with Molly Sears on a 2022 grant to study [Water Scarcity in the Serbian Danube: Agricultural land use change and irrigation](#). Liverpool-Tasie received a grant for research to support African MSMEs to supply affordable, safe, and nutritious foods. Ortega received a grant to develop a coordinated approach to managing coffee leaf rust in Puerto Rico, based on economic cost-benefit analysis. [DeYoung](#) received a grant to work on the 2021 Coffee Development Report. (DeYoung was hired in 2016 as Program Manager for the USAID-funded [Feed the Future Innovation Lab for Legume Systems Research](#) (LSIL).)

In 2022, additional funding was received for the SERA BORA project in Tanzania and the NAPA project in Nigeria. Maredia received grants for work with the Hawaii Agricultural Council, for preparation of a white paper on coffee research, and for a major extension of the USDA-funded SARA KEA project in Kenya (with Minde, Crawford, Muyanga, and Tegemeo colleagues). Muyanga and colleagues received funding from ATI for additional policy research work in Malawi.

In 2023, Boughton obtained USDA funding (through Winrock International) for food and agricultural policy analysis in Thailand (with Maredia). Muyanga (with Burke) received additional funding through ATI for phase 2 support for the MwAPATA Institute, and Burke (with Muyanga and Goeb) received funding from USAID for economic growth policy analysis, both projects in Malawi.

Also in 2023, Molly Sears received additional funding for her research on water scarcity in the Serbian Danube. Reardon, Caputo, and Ross received a Belmont Forum Collaborative Research grant on “The Role of Supermarkets as Key Agents in Systems of Sustainable Consumption and Production.” Caputo received a USDA-NIFA grant for work entitled “Meal Clicks: Tracking consumer preferences and demand for food consumed away from home ordered online.” Lastly, Jin received two World Bank grants, one for research on the agricultural productivity effects of one of India’s workfare programs, and the other for analytical work on climate change and agricultural factor markets in Ukraine. (See Annex Table 5.6.)

## Key Thematic and Methodological Focus Areas

The topics here are listed in very approximate chronological order. See also Annex Table 5.7.

### Agricultural Market Organization, Structure, and Performance

### *Latin America, Thailand, Africa*

This work was based on the Structure, Conduct, and Performance framework, focusing on markets as subsectors with multiple participants from first handlers to processors, wholesalers, and retailers. It recognized that markets are never “free” but that government and political actions establish the “rules” of market behavior, and it emphasized multiple dimensions of performance. This approach, applied by many AFRE faculty and in many projects, was an influential precursor to the more recent emphasis on “supply chains” and “value chains,” which has been very similar in orientation and emphasis on the important roles played by market intermediaries working between the points of production and consumption. This work has also been the foundation for much of the work documenting processes of food system transformation, which has been a key conceptual foundation for other work reviewed below.

### Agricultural Sector Assessment and Modeling

#### *Nigeria (CSNRD), South Korea, Mali*

As described in Byerlee (2024), the CSNRD and Agricultural Sector Analysis and Simulation (ASAS) projects in Nigeria “aimed at using sector-level models to influence policy and investment at the national level.” The models had relatively little primary data underpinning them. Their focus was on accelerating economic growth, with more attention to export crops than domestic food crops. The ASAS model used systems simulation rather than econometric methods, given the paucity of detailed data. A similar approach was later used in the South Korea project. Faculty and graduate students working on food security in Mali carried out an agricultural sector assessment of the country that served as a major input into USAID/Mali’s 2011 strategic plan and also provided input into Mali’s national CAADP plan.

### Rural and Small-Scale Enterprises

#### *Africa, Asia, Latin America*

This research, conducted jointly with faculty from MSU’s Department of Economics, highlighted the importance of off-farm and agricultural and non-agricultural enterprises in the rural economy, and the constraints and incentives that affect their performance. Results of this work showed that rural development could not be achieved only by focusing on farm production. Post-2000 value chain studies also focused extensively on small- and medium-scale enterprises within the value chain concerned. See the entry below on food systems transformation.

### M.S. and Ph.D Training

#### *Sahel MS program, Senegal/ISRA project, Mozambique Food Security Project, [UILTCB](#), HEPAD, Kenya/Tegemeo, BHEARD, [iAGRI](#), Brazil*

While many AEC/AFRE projects had a training component, there have been notable projects that were entirely or largely focused on graduate training of students from Africa, Asia, and Latin America, beginning at least as early as the 1970s with the Sahel MS and Senegal/ISRA projects (which brought MS and PhD students to U.S. universities). By the 1990s, donors including foundations and USAID had grown somewhat dissatisfied with the expense and length of time of these training programs and the less than 100% return of graduate trainees to their home countries and institutions. This led USAID to offer funding for new, improved models of training, which resulted in the UILTCB, HEPAD, iAGRI and BHEARD

projects managed by AFRE or AFRE faculty.<sup>20</sup> These projects involved research—and sometimes up to one year of course work—carried out in the student’s home country, with joint research mentorship by faculty from MSU or other U.S. universities and from academic institutions in the student’s home country. The Tegemeo project (through Egerton University in Kenya) brought PhD students from Kenya to MSU. Upon their return, they assumed research and institutional leadership positions at Tegemeo, collaborating with AFRE faculty. The Mozambique project trained multiple Mozambicans at M.S. and PhD levels, providing them with a position within the program on their return and then seeing them populate many high-level positions in government and the private sector (including former Minister of Agriculture and current Director of MCC in Mozambique, Higino de Marrule).

### Institutional Capacity-Building and Partnerships

*In general, all FSG cooperative agreements with USAID have had a strong capacity-building component.*

Major long-term capacity-building projects include the establishment of the University of Nsukka (Nigeria, 1960s); support to analytical units in Universities/Ministries in Latin America during 1970s; Kasetsart University (Thailand—1970s & 2021-23), ISRA BAME and its Production Systems Department (Senegal, 1982-92), Mali Market Information and PROMISAM projects, establishment of SIMA, the market information system in Mozambique; institutionalization of an annual national agricultural survey in the Ministry of Agriculture in Mozambique; support to creation of an agricultural economics program at Institut Polytechnique Rural (Mali), data collection and analytical capacity strengthening with Tegemeo Institute for Agricultural Policy and Development (Kenya), Ministry of Agriculture (Rwanda), establishment of IAPRI (Zambia) as an independent agricultural policy research center, Ministry of Agriculture Planning Unit and CEPPAG at the University of Eduardo Mondlane (Mozambique), ReNAPRI (East/Southern & West Africa), Ministry of Agriculture and the ASPIRES NGO (Tanzania), support for the University of Ibadan and others (Nigeria NAPP and NAPA projects) including the creation of PiLAF as an agricultural policy research unit at the university; support for Yezin Agricultural University (Myanmar), and establishment of Mwapata (Malawi) as an independent policy research center. See Annex 4 for further details.

### Farming Systems Research

*Senegal/ISRA, MSU on-campus working group*

In response to the growth of farming systems research, as a multidisciplinary approach focused on research-based solutions to farmers’ production problems, AFRE faculty were involved in the USAID-funded project with ISRA (1982-92), which included support for establishment of a new Department of Production Systems Research and Technology Transfer and creation of farming systems research teams in three new regional research stations. In the mid-1980s, MSU’s food security project in Mali worked with IER (the national agricultural research unit) to carry out a strategic plan that resulted in the creation of an FSR research unit within IER. At the same time, MSU established a Farming Systems Research Working group with participation from AFRE faculty, and hosted an international FSR conference in East Lansing in the late 1980s.

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<sup>20</sup> The UILTCB project was led by an AFRE faculty member but was managed by the Bean-Cowpea CRSP under MSU’s Institute of International Agriculture, the HEPAD project was jointly managed by AFRE and by the International Programs Office of the College of Agriculture at Ohio State University, and the iAGRI project involved a consortium (including MSU/AFRE) that was managed by Ohio State University.

## Agricultural Productivity Studies

### *West and East/Southern Africa*

During the early 1990s AFRE faculty conducted case studies of farm productivity in Burkina Faso, Senegal, Rwanda, and Zimbabwe. These led to influential publications on the factors that condition farm productivity, including policies and institutions as well as technology and farm-level resources. A conceptual framework for achieving improved productivity was developed, including early, if not the earliest, use of the concept of “sustainable intensification.” Somewhat related work on farm household-level interactions between cash crop and food crop production was conducted in Senegal and Mali.

## Soil Fertility

*Contributions to World Bank/FAO Soil Fertility Initiative in 1990s, and work in Zambia and Tanzania in 2010s-20s.*

The motivation for the Soil Fertility Initiative was widespread concern by agronomists about declining soil fertility in Africa, caused by low use of fertilizer and the declining prevalence of fallowing practices. AFRE faculty contributions included a review of the agronomic and agricultural economics literature on this topic, and input to formulation of new policies and programs. This included co-author contributions by Kelly to a Handbook for Integrated Soil Fertility Management published by the African Soil Health Consortium and CAB International (CABI) in 2012. Later research in Zambia and Tanzania in collaboration with MSU soil scientists gathered data on soil carbon levels and improved estimates of agronomic and economic response to fertilizer application.

## Food Aid Program Design

### *Mozambique; Global*

AFRE faculty carried out four major pieces of research on food aid. In Mozambique, they documented the positive impact on food availability and development of trading networks of massive monetization of food aid through private markets when the country was still at war, yet noted that continued large sales at low prices would undermine local production and marketing as the country came out of war. A second study focused on an assessment of USG’s Title II monetization program noting that, while it was clearly inefficient due to high transport and management costs, it was frequently an appropriate “second best” solution in the absence of other mechanisms to enhance market supply in the short run. A third study funded with the World Food Program assessed WFP’s “local and regional procurement” program and highlighted recommendations for improvement. Faculty conducting this study also sat on WFP’s Technical Review Panel for its P4P (Purchase for Progress) program. Finally, AFRE faculty and graduate students also carried out a desk review in 2005 for the World Food Program on Emergency Needs Assessment and the Impact of Food Aid on Local Markets.

## Economic Returns to Agricultural Research

### *Mali, Niger, Uganda, Zambia*

At the beginning of the 1990s, after twenty years of supporting agricultural research and development, USAID had lost faith in the value of such investments. African governments also were investing small shares of national budgets in agricultural research. Under its USAID-funded food security projects, AFRE faculty carried out literature reviews and conducted multiple field studies of the economic returns to investment in agricultural research. The robust returns demonstrated by these studies, as well as by similar studies carried out by researchers from other institutions, provided hard evidence that research investments merited higher priority.

## Commodity-Specific Studies

### *Fruits and vegetables, legumes, coffee, cotton, maize, rice, orange-fleshed sweet potatoes*

AFRE researchers played key roles in the PFID project, successive phases of MSU's Bean/Cowpea CRSP and subsequent Legume Systems Research Innovation Lab, and in studies of coffee (Rwanda/Burundi), cotton (Southern, East, and West Africa), maize (many African countries), rice (West Africa, Myanmar), mangoes (Mali) and orange-fleshed sweet potatoes (Mozambique, Rwanda). The significant contribution of these studies was to base the analysis on primary data collection in collaboration with local research institutions, often through projects that included graduate training and other forms of individual or institutional capacity-building. An additional contribution was to highlight the role of institutions in facilitating positive sector performance in crops dependent on external inputs and with high returns to quality in global markets, which may require coordination measures if input or credit markets are imperfect.

## Impacts of HIV/AIDS in Africa

### *Southern Africa*

During the upsurge of HIV in the 1990s, AFRE researchers working in Southern Africa countries collected primary data on the incidence of HIV/AIDS and the characteristics of those affected. The results contributed to improvements in the design of programs to arrest the spread of HIV/AIDS and the treatment of those already infected.

## Food System Transformation: The Growing Role of Supermarkets and the Rise of the "Hidden Middle"

### *Latin America (Chile), Bangladesh, Senegal, Myanmar, Nigeria, India, Tanzania*

AFRE faculty have deepened the understanding of how food system transformation has been driven by urbanization, income growth, and the globalization of food markets. Reardon pioneered work in Latin America that showed the rapid spread of supermarkets and its implications for grades and standards expected of farmers wishing to supply supermarkets, especially for fruits and vegetables. This led to related studies in other parts of the world that showed a less strong incursion of supermarkets as a source of horticultural products to consumers. However, the approaches used in these studies served to strengthen more recent studies of value chains in general, the key roles played by actors at different levels, the constraints they faced, and opportunities for addressing those constraints through new public investments. One important line of research in this area has been work highlighting the key role of the "midstream" in food value chains, often considered "missing" and a reflection of stagnant value chains. Reardon and colleagues instead have shown that this sector is large, innovative, and responsive to economic opportunities when policy and infrastructure are right. The sector has expanded rapidly under the drivers of urbanization and rising income, resulting in increased demand for food with more value added, such as processed and ultra-processed foods. Highlighting the importance of the sector for livelihoods and for the price, safety, and overall quality of food for consumers, this work has contributed to thinking about policies and investments needed to make the sector more innovative and efficient.

## Climate Change

### *Kenya/Zambia; Africa/Asia-wide (PRCI/CACCI)*

In the mid-2000s, AFRE researchers working with others at MSU, and with Kenyan and Zambian researchers, conducted USAID-funded studies in Kenya and Zambia to examine the likely impact of climate change on agricultural production, by combining the best available estimates of future temperature and rainfall trends with biophysical crop models and statistical analysis of crop production.



The significance of these studies was to add an economic analysis dimension to other climate change and crop modeling studies that focused only on biophysical variables. From 2014 to 2018, several AFRE researchers under MSU's Global Center for Food Systems Innovation carried out other studies of the impact of climate change, including in Malawi and Tanzania, that contributed in part to USAID's Climate Resilient Maize program. More recently, under AFRE's PRCI Innovation Lab, AFRE researchers carried out studies of the behavioral response of traders and transporters to multiple shocks, including climate shocks, partnered with IFPRI to model alternative responses to climate change mitigation and adaptation, and partnered with African organizations ANAPRI (African Network of Agricultural Policy Research Institutes) and AKADEMIYA2063 to work at country level to design locally owned and empirically informed action in support of country Nationally Declared Contributions (NDCs) and National Adaptation Plans (NAPs).

### Land Tenure

*China, India, Southern Africa and Mali.*

In Mali, FSG researchers carried out a study of the adaptability of land tenure and property rights in areas of Mali that were receiving increased immigration from arid zones in light of climate change, increasing demand for agricultural products, and insecurity in the north. In China, Jin and his co-authors carried out a series of studies on land tenure security and land rental markets, which showed that land rental markets transfer land from less to more efficient farmers and that removing restrictions on land rental and improving tenure security would reduce transactions costs, which would increase both productivity and employment, especially in villages with elected leaders. In India, Jin and his co-authors found that crop yields on sharecropped land were lower than on own land, which suggested that government support for tenants to acquire land ownership from landlords could bring efficiency gains.

### Market Information Systems

*Senegal, Mali, Zambia, Mozambique*

A major capacity-building activity under several USAID-funded projects in Africa was the design and implementation of systems for collecting and disseminating market price and sales volume information. This was initiated on a small scale in the Senegal/ISRA project in the 1980s but involved creation of national market information units in Mali, Zambia, and Mozambique and the creation of a regional network of national market information systems across West Africa. These units used cutting-edge technology and survey methods to collect representative data from agricultural markets and to transmit the information rapidly to farmers and traders via radio, email, and later SMS in order to improve market competition, and to Ministry of Agriculture headquarters. They also supported analysis of the data and communication of findings to national-level policy makers. Data sets for multiple products across many markets, typically at weekly frequency, were constantly updated and made freely available to anyone wishing to work with the data. These activities opened the eyes of senior policy makers to the possibility of getting empirical data that was relevant to key national policy decisions, and in a timely fashion. They also promoted greater regional trade by making market opportunities in adjoining countries more visible to private actors.

### Consumer Choice Studies

*China, Kenya, Rwanda, Senegal, Tanzania*

Under the GAIN project in Kenya, AFRE faculty members have used discrete choice experiments to assess the desirability of specific foods compared to other complementary or close substitutes to understand the demand for food products that are more nutritious, safe, or have other desirable

characteristics. Work in China focused on evaluating emerging consumption trends and assessing preferences for alternative proteins, gene-edited products, and healthy diets. Other choice experiment studies were conducted on coffee in Rwanda.

### Agricultural Intensification, Input Markets, and Input Subsidies

*Ethiopia, Kenya, Mali, Malawi, Nigeria, Rwanda, Zambia; contributions to World Bank initiatives and publications*

A large number of AFRE faculty worked on this topic, as a follow-on to earlier work on farm productivity that then led, in the 1990s, to work on agricultural intensification through programs such as SG2000 and to studies of the returns to agricultural research. Related detailed studies were carried out on input distribution markets/systems, especially for seed and fertilizer, and then, after the spike in world food prices in 2007-08 on the impacts and pros and cons of agricultural input subsidies implemented in many African countries, and how to design “smart” subsidies that would be better targeted and more cost-effective. AFRE studies on these topics were very influential both within the profession (with an AFRE faculty team winning an AAEA policy analysis award for work on this topic) and as an input to policies of major donors such as the World Bank. AFRE faculty contributed directly to the formulation of World Bank reports and guidelines for design and implementation of “smart” subsidies. In countries such as Mali, Kenya, Zambia, and Malawi where there had been long-term research by AFRE faculty with local partners, and especially where multiple-year farm surveys had been carried out (see next topic), the AFRE research on input subsidies was especially credible and had a strong influence on national policy makers and on revision in the design of national input subsidy programs.

### Household Survey Methods

*Sierra Leone, Upper Volta*

As discussed in Byerlee (2024), the desire to improve the empirical basis for development planning and programming in the 1960s led to highly detailed surveys conducted in Sierra Leone and Upper Volta, based on the “cost-route” survey methods developed by David Norman in Nigeria and also used there by Matlon in his own Ph.D. research. In addition to once-per-year visits to a large sample of villages and farm households, these surveys generally included multiple visits to a smaller sample of farm household (sometimes several visits per week during the agricultural season) to monitor labor activities, application of inputs, and harvesting on each field. The obvious advantage of this approach is the improved quality of data, reflecting details of seasonal changes in activity and reducing errors of recall by respondents, and the opportunities provided for researchers to become thoroughly familiar with local conditions. Such surveys, however, were expensive and therefore tended not to be implemented over multiple years.

*Kenya, Mozambique, Zambia, Myanmar*

While AFRE research in Africa and Asia since the 1970s almost always included a significant component for primary field data collection, this was especially true in the countries listed above where survey data was collected for a three-year to five-year panel of farm households. (In Rwanda, national surveys were conducted over a longer period (1987-94, 1997-2003), but not generally involving a panel of households.) The clear advantage of the panel data was to allow insights about impacts of policy, program and other changes on farm households, controlling for household/farm characteristics. These datasets provided an unmatched research resource on a variety of topics for AFRE faculty, students, and their local partners. The quality of these surveys resulted from a conscious effort to use state-of-the art questionnaire design and survey methods, and from expertise in data management and data analysis provided by project-hired survey data specialists (Beaver and Payongayong) and by graduate students

who had received the latest training in best practices for statistical analysis of panel datasets, including from world-class econometrics and development economics faculty in MSU's Department of Economics. Especially in Mozambique and Zambia, this work has featured heavy collaboration and capacity strengthening with national statistical agencies. In Mozambique, the "TIA" (*Trabalho de Inquerito Agricola*) that FSG developed became the annual rural household survey used by government, donors, and analysts to understand the country's evolving rural economy.

### Agricultural Policy Research and Outreach

#### *Global*

In general, a focus on policy and on outreach with stakeholders regarding research design and research results has characterized all AFRE international research. This also reflects the mission of MSU as a land grant institution. Certainly, all FSG cooperative agreements had these as significant dimensions. A long-standing emphasis of this work was to provide interim research results, pending peer-reviewed publication, in the form of working papers and policy briefs. The emphasis on use of policy briefs continued even as the value of peer-reviewed publications grew in the eyes of donors, as well as others in the profession. As the Food Security Policy (FSP) project succeeded FS III, the emphasis on policy research and outreach became even stronger. AFRE faculty with IFPRI colleagues developed the Kaleidoscope Model of factors affecting policy adoption, which supported USAID's increasing interest in ensuring that sound policy research reached key decision-makers and resulted in real policy change. When PRCI succeeded FSP, efforts to improve impacts on policy change were channeled increasingly through our local partners. PRCI programs emphasized the importance of building policy issues into research design from the beginning and provided training to non-specialists on tools for improving policy messaging to decision-makers, then encouraging local partners to lead the policy engagement.

### Improved Seed System Performance

#### *Central America, West/East/Southern Africa, Myanmar*

This topic was addressed primarily by AFRE researchers working with the Bean/Cowpea CRSP and its successor legume research innovation labs at MSU, and by FSG researchers who—after the extensive work on returns to agricultural research during the 1990s—looked at how then to expand the uptake of improved crop and animal varieties. These studies identified a range of institutional constraints to implementing seed multiplication and seed sales systems in a way that preserved the biological integrity of improved seeds and offered improved seed to farmers at a price that was affordable to them but also remunerative to seed system production and marketing institutions. Achieving these objectives remains very challenging, but the research conducted has been valuable in identifying key factors and in documenting the relative success of different approaches to seed system development. More recently, the work on seed systems has focused on understanding farmers' preferences and willingness to pay for quality seeds with implications for policies governing seed quality assurance.

### Agricultural Natural Resource Management

#### *Ethiopia, Zimbabwe, Nicaragua, Peru, West Africa*

AFRE faculty and graduate students researched agricultural natural resource management topics, looking at economics of property rights and soil conservation in Ethiopia, pesticide risks in Zimbabwe, integrated pest management training in Nicaragua, and links between poverty and farmer investments in natural resource conservation. Other researchers participated in the World Bank/FAO-sponsored Soil

Fertility Initiative in the early 2000s, focusing on trends in declining soil fertility in Africa and measures to counteract them.

### Impact Assessment/Evaluation

*Central America, West Africa, Cambodia, Rwanda, Mozambique, Lesotho*

AFRE faculty members have led impact assessments and evaluations of development projects in several countries. These range from adoption studies of specific technologies and *ex post* impact assessments to infer plausible effects of technology adoption on productivity and producer incomes, to the use of rigorous experimental methods such as randomized controlled trials and quasi-experimental methods using panel or cross-sectional data and econometric analysis for inferring causal effects of development initiatives. Such evaluations have encompassed a wide range of topics from understanding farm-level technology adoption to assessing the effectiveness of agricultural extension models, land tenure reforms, and integrated approaches to promote nutritional outcomes. AFRE faculty also contributed to the framework for the evaluation system used by ECOWAS for its regional West Africa CAADP program.

### Changes in Farm Size Structure

*Kenya, Zambia, Nigeria, other countries*

AFRE faculty member Jayne and colleagues at MSU and in-country have shown that African agriculture is not just a mass of small farmers with a few large ones, but that the category of medium-scale (e.g., 20-50 ha) farms, or smaller farmers that are highly commercialized in horticultural production, is rapidly growing. Their research has documented this trend and has examined the characteristics of such farms and ways in which they interact with other actors in the agricultural sector, including possible beneficial impacts on small farmers through attraction of improved local input and output marketing and processing enterprises. This is an excellent example of how AFRE researchers have followed up on observations made in the field by conducting more extensive and representative household or firm surveys to provide solid empirical evidence of the reality on the ground, and then by communicating the implications of this information to national authorities for use in improved policy and program design.

In India, Jin and his co-authors conducted non-parametric and parametric analysis using panel data to show the dynamic change of the relationship between farm size and productivity. They show that the inverse size-productivity relationship in India has gradually weakened from 1982-2008 but has not disappeared. Their econometric analysis further shows that the improvement of rural labor markets is the main explanation for the weakening inverse size-productivity relationship in India.

### Role of Aquaculture

*Bangladesh, Myanmar, Nigeria*

AFRE faculty member Belton and colleagues at MSU and in-country have led extensive field surveys of the aquaculture sector in the above-listed countries. Communication of the results of this research, including through publication in high-profile journals, has widely disseminated evidence to policy-makers about the extent and nature of this important industry.

### Impacts of Specific Crises Affecting Food Security

*Nigeria, Myanmar, Mali, Kenya, Tanzania, Malawi, and other countries*

Especially notable examples of such studies by AFRE faculty and local colleagues at the country or broader regional level are those that focused on the impacts of: (a) sharply rising world fuel and fertilizer prices during the 2007-2008 period, (b) the 2020-22 COVID-19 pandemic (in both Africa and

Asia), and most recently (c) effects on Malawi, Tanzania, Kenya and other countries of the Russia-Ukraine war in 2022-23. For example, when the onset of COVID-19 put a stop to international travel and to face-to-face survey data collection, AFRE researchers responded by implementing cell phone-based surveys. Although the extent of the information collected was modest, in terms of number of questions feasible to ask, nonetheless these surveys made it possible to track the impact of COVID-19 on certain economic production and marketing activities, which the countries concerned would otherwise have been unable to obtain.

## Food Consumption/Dietary Transformation and Implications for Nutrition and Agriculture

### *East and Southern Africa, Mali*

AFRE research on nutritional issues has been long-standing but sporadic. Studies were conducted in the 1980s and 90s in Africa on food consumption patterns. In Mali, AFRE faculty were asked to study why positive trends in agricultural development (farm incomes) did not seem to be having positive impacts on nutritional status of rural residents. This research showed the difficulty of connecting farm income increases to nutritional improvement, sometimes because of the complex nature of farm household organization where higher farm incomes were not passed on to those responsible for child feeding. More recently, research has highlighted how urbanization and income growth and resulting changes in food consumption patterns are driving the rise of midstream firms and important shifts of labor and value added to the post-farm portion of value chains. In the most recent work, the GAIN and SARA-KEA projects in Kenya, and activities of the PRCI Innovation Lab, are looking at the “food environment” to learn more about where households obtain their food, the healthiness of the diets households and individuals are consuming, and how that information may help improve nutritional outcomes.

## Success Factors

As discussed above, throughout its history the AEC/AFRE Department has been remarkably successful in competing for and winning many small and very large international grants and contracts that were managed by the Food Security Group. A variety of factors have contributed to this success. Four important aspects of the approach used were identified by the [FSG Co-Directors in 2007](#):

1. A thematic, scholarly approach, developed in partnership with African colleagues and the funding agencies, and integrating research by U.S. and international graduate students.
2. Integrating research, outreach, capacity building and institutional strengthening.
3. An emphasis on real-world problems.
4. A team-oriented approach.

These dimensions of the approach helped ensure that (a) activities undertaken were consistent with the university’s teaching, research, extension/outreach, and public service missions [aspects #1 and 2], (b) program objectives and activities were designed collaboratively and focused in part on real-world problems, therefore addressing the interests and needs of both African and Asian colleagues and donor agencies [aspects #1 and 3], and therefore (c) significant external resources were mobilized that not only supported the direct costs of the programs but added to general department resources through indirect cost recovery and salary savings for tenure stream faculty. The team-oriented approach [aspect #4] was also important, especially for the Food Security Group, to ensure long-run maintenance of a critical mass of researchers with complementary interests and skills, including fixed-term faculty who lacked the job

security afforded by tenure-system appointments. See Annex 2 for a list of fixed-term faculty engaged in FSG activities during the 2006-2022 period.

As will be discussed further below, many of the patterns reflected in these four features can be traced back to some of the standard operating procedures used by faculty in the earliest international programs of the Department, such as the emphasis on inclusion of graduate students in international research activities.

### Group planning

Periodically, faculty have undertaken forward planning exercises to try to guide priorities for program and staffing needs. Departmental leadership over the years has also been instrumental to creating productive and rewarding opportunities for a wide range of involvement in international activities. Examples of this group planning include discussions during departmental external reviews and FSG preparation of multi-year work plans in conjunction with USAID staff, especially during the FS III project when programmatic allocation of core funding needed to be more explicit.

### Substantial and dedicated staff support

Also central to this story over the years has been the daily implementation contributions of a large number of dedicated administrative and financial support staff in the Department, and as well as in host-country locations. AEC/AFRE department staff who have provided significant administrative and financial support over the years since the 1970s include Eleanor Noonan, Julia McKay, Judy Pardee, Lucy Wells, Janet Munn, [Nancy Creed](#), Mabel Buonodono, Ann Robinson, [April Stellard](#), [Taylor Logan](#), [Staci Howard](#), and [Guido Pipola](#). The FSG business office has been very ably headed by Janet Munn, Rosie Kelly, [Scott Frump](#), and [Kevin Cox](#), supported by many others including Pat Eisele, Nancy Fair, Josie Keel, Jean Schueller, Cathy Snider, Kay Barber, Xiao Zhen Li, Chad Odom, and Nicole Walworth. Help with project documentation came from prior AEC Department reference librarians, [Sondag](#) and [Dow](#), and from [Longabaugh](#) in maintaining the [Food Security Group](#) website and carrying out other project documentation/support, among other contributions. Critical assistance with computer support was provided by the department's computer services group, headed for many years by Chris Wolf and including Brian Hoort and Linda Beck, among others. FSG communications managers have also played a key role since 2000, including Elisabeth Paymal, Samantha Ward, James Monahan, and [Melissa Hill](#). Last but not least is support from long-term in-country technical as well as administrative collaborators, particularly for FSG projects in [Mali](#), [Mozambique](#), [Zambia](#), [Zimbabwe](#), [Thailand](#), [Ethiopia](#), [Rwanda](#), [Kenya](#), [Malawi](#) and [Burma](#).

### Contributions to International Program Leadership at MSU and Beyond

Since the early years of international activities at Michigan State University, faculty in AEC/AFRE have been called upon periodically by Departmental, College and University leaders to guide the establishment and operations of international activities. These were sometimes group as well as individual stocktaking and forward-looking exercises, always aimed at keeping international activities alive, growing, and producing meaningful as well as integrated contributions to the Departments, as well as to the College and University teaching, research and outreach portfolios.

A number of milestone guidance documents and other support efforts are listed below starting as early as 1959. These were all directed towards the challenge of helping inform the question of how AEC/AFRE's and broader MSU's international involvement could grow and best contribute to a wide range of domestic and international stakeholders. Since AEC/AFRE was formally established in 1949 until the date of this report, there have been 13 different Department Chairpersons who have each helped

guide and support Departmental faculty during their respective tenures. Four of the first five Chairpersons were each active participants in implementing and shaping international activities (Boger, Hathaway, Riley and Manderscheid) before taking on Departmental leadership duties. In more recent times, Connor, Hamm, and Hanson have grown into taking important international as well as domestic leadership roles but coming primarily with domestic agriculture experiences. Connor's insights on international dimensions of the Department's activities have been of lasting value, including his 1987 [Ten Commandments for a Good International Program](#). Recent Chairpersons (Awokuse, Swinton) have had very strong and long-standing collaborative relationships with international research and educational institutions, including extended periods of in-country residence.

### **Historical Contributions of AEC/AFRE Faculty to Guidance on Departmental and MSU International Programs**

- [Towards An International Dimension at Michigan State University](#). 1959. by Lawrence W. Witt.
- [A Report to the President of Michigan State University from the Committee on the Future of the University](#). 1959. by Dale E. Hathaway
- [Report to Dean Cowden by the International Committee of the College of Agriculture](#). 1963. by Harold M. Riley
- [The International Dimension of the Department of Agricultural Economics at Michigan State University](#). 1964. by Robert D. Stevens, Chairperson
- [The International Focus at Michigan State University: Report from the International Programs Review Committee to Review, Evaluation and Guidelines for International Studies and Programs at Michigan State University](#). 1967. by Lawrence L. Boger, Chairperson
- [Foreign Educational and Professional Experiences of Members of the Department of Agricultural Economics at Michigan State University before and After Joining MSU](#). 1966. by Orion Ulrey
- [International Activities of the Department of Agricultural Economics--A Position Paper](#). By Harold Riley, Lester Manderscheid, Carl Eicher and Ed Rossmiller. 1976
- [International Activities of the Department of Agricultural Economics](#). By Derek Byerlee, Kelly Harrison and G. E. Rossmiller. 1977.
- [Ten Commandments for a Good International Program at MSU](#). . 1978. by Larry J. Connor
- [A Report from the International Review Committee to Reassess the International Dimension of the College and Prepare Recommendations for Future Directions](#). 1979. by Harold M. Riley
- [International Activities of the Department of Agricultural Economics](#). 1986. By John Staatz and Michael Weber.
- [Departmental Values in Pursuit of Excellence](#) – 1986. by Larry J. Connor.
- [A Strategic Plan for Excellence in MSU's Department Of Agricultural Economics](#). 1990. By the Department of Agricultural Economics
- [Report of the Council on the Review of Research and Graduate Education \(CORRAGE\), Michigan State University](#). 1991. Carl K. Eicher was a CORRAGE member and report co-author.
- Highlights of the MSU/AFRE Food Security II/III Cooperative Agreement: [Cutting Hunger and Poverty in Africa through Better Programs and Policies](#). 1995.
- [Facilitating Effective Food Security Policy Reform](#). 1996. Policy Brief No. 17. MSU Food Security II faculty team.
- [MSU/AFRE and Other Contributions to the Partnership to Cut Poverty and Hunger in Africa: Historical Milestones](#). 2001
- [AEC's African Food Security Portfolio: Bridging to a More Secure and Productive Future](#). 2007. By Food Security Project Co-Directors (Boughton, Crawford, Staatz and Weber).

- [Improving Food Security in Africa: Highlights of 25 Years of Research, Capacity-Building, and Outreach](#). 2009. By The MSU Food Security Group. Policy Brief Number 84.
- [The MSU/AFRE Food Security Group](#). 2008 -2014
- [Steve Hanson, Chairperson of AFRE, Appointed Dean of MSU International Studies and Programs at MSU](#). April, 2014.

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Byerlee, Derek. 2024. "How Michigan State University Became a Leader in African Agricultural Economics: A Personal Memoir." Michigan State University, Department of Agricultural, Food, and Resource Economics, Staff Paper Series #2024-007, September.

Reardon, Thomas, Kevin Chen, Bart Minten, and Lourdes Adriano. 2012. *The Quiet Revolution in Staple Food Value Chains: Enter the Dragon, the Elephant, and the Tiger*. Mandaluyong City, Philippines: Asian Development Bank.

Staatz, John M. and Carl K. Eicher, "Agricultural Development Ideas in Historical Perspective," Chapter 1 (pp. 3-38) in Eicher, Carl K., and John M. Staatz (Eds.). 1998. *International Agricultural Development*. 3<sup>rd</sup> Ed., Baltimore: Johns Hopkins University Press.

Thorbecke, E. 2019. "The History and Evolution of the Development Doctrine, 1950–2017," Ch. 3 (pp. 61-108) in Nissanke, M., and J. A. Ocampo (eds.), *The Palgrave Handbook of Development Economics*; [https://doi.org/10.1007/978-3-030-14000-7\\_3](https://doi.org/10.1007/978-3-030-14000-7_3).



## Annex 1. Faculty Involved in International Activities: 1970-2022

Tenure-Stream Faculty		Fixed-Term Faculty		Fixed-Term Faculty, Cont.	
Name	Hiring Date	Name	Hiring Date	Name	Hiring Date
Adelaja	2004	Aung	2020	Sitko	2012
Anderson	2008	Belton	2015	Smale	2011
Awokuse	2015	Benfica	2011	Tasie	2014
Bemsten	1985	Boughton	1998	Tefft	1991
Black	1970	Burke	2012; 2021	Temé	2015
Caputo	2016	Chamberlin	2013	Therault	2011
Crawford	1979	Chapoto	2006	Tschirley	1988
Dillon	2012	Cunguara	2011	Uaiene	2012
Gammans	2020	Dembele	1998	Valle de Souza	2017
Gow	2007	DeYoung	2016	Walker	2002
Hanson	1988	Diallo	2009	Wineman	2021
Harsh	1968	Dioné	1987	Yade	1996
Hoehn	1984	Donovan	1999	Yamano	2000 a/
Jin	2007	Goeb	2019	Yeboah	2014
Joshi	2000	Govereh	N/A		
Liverpool-Tasie	2012	Haggblade	2005		
Loveridge	2000	Howard	1994		
Lupi	1999	Jayne	1989		
Mason-Wardell	2011/2013	Kappiaruparampil	2017		
McKendree	2017	Kelly	1991		
Myers	1986	Koné	2018		
Nakasone	2015	LeVallee	1996		
Oehmke	1985	Longabaugh	2001		
Olabisi	2017	Low	1999		
Ortega	2013	Ma redia	2000		
Porter	2013	Mather	2009		
Reardon	1992	Mead	1979		
Robison	1975 a/	Mensope	2015		
Ross	2008	Minde	2011		
Schmid	1959 a/	Mlay	2006		
Shupp	2007	Murekezi	2010		
Staatz	1984	Muyanga	2013		
Swinton	1991	Nankhuni	2015		
Thornsbery	2002	Nyange	2013		
Weatherspoon	1998	Reyes	2012		
Weber	1976	San	2020		
Wu	2013	Simpson	2012		
Zhao	2008				
a/ Estimated					

## Annex 2. FSG Fixed-Term Faculty Employed from 2006 to 2022

Name	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Benfica, Rui	X	X	X	X	X	X	X	X	X	X							
Boughton, Duncan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Chapoto, Antony	X	X	X	X	X	X											
Dembele, Nango	X	X	X	X	X	X	X	X	X	X							
Donovan, Cynthia	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Haggblade, Steve	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Jayne, Thom	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Kelly, Valerie	X	X	X	X	X	X	X										
Maredia, Mywish	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Mather, David	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
May, Gideon	X	X	X	X	X	X											
Payongayong, Ellen	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Smale, Melinda	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Tschirley, David	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Burke, William					X	X	X									X	X
Diallo, Boubacar					X	X	X	X	X	X	X	X					
Longabaugh, Steve					X	X	X	X	X	X	X	X	X	X	X	X	X
Murekezi, Abdoul					X	X											
Staatz, John					X	X	X	X	X	X							
Cunguara, Benedito						X	X	X	X	X	X	X					
Mason, Nicole						X	X	X									
Minde, Isaac						X	X	X	X	X	X	X	X	X	X	X	X
Theriault, Veronique						X	X	X	X	X	X	X	X	X	X	X	X
Reyes, Byron							X	X	X	X	X	X					
Sitko, Nicolas							X	X	X	X	X	X					
Uaiene, Rafael							X	X	X	X	X						
Muyanga, Mlu								X	X	X	X	X	X	X	X	X	X
Nyange, David								X	X	X	X	X	X	X	X	X	X
Schneller, Anne								X	X	X	X	X	X				
Simpson, Brent								X		X	X						
Caims/Smart, Jennifer									X	X							
Chamberlin, Jordan									X	X							
Me-Nsope, Natalie									X	X	X	X					
Tasie, Oyinkansola									X	X	X	X	X	X	X	X	X
Teme, Bino										X	X						
Belton, Ben										X	X	X	X	X	X	X	X
Nankhuni, Flora										X	X	X	X				
Yeboah, Kwame										X	X	X	X	X	X	X	X
De Young, David												X	X	X	X	X	X
Ngoma, Hambulo												X	X				
Koné, Yenzié													X	X	X	X	
Goeb, Joey														X	X	X	X
Aung, Nilar															X	X	X
San, Cho Cho															X	X	X
Wineman, Ayala																X	X

### Annex 3. Summary and Excerpts from Thorbecke’s Review of Development Economics

Thorbecke (2019) defines “. . . *development doctrine* as the body of principles and knowledge resulting from the interrelated complex of [the following] four elements [:] (1) development theories and models, (2) objectives, (3) data systems and the measurement of performance and (4) development policies, institutions and strategies . . . .” (p. 63). Annex Table 3.1 below summarizes the key features of each of these four elements during the six periods covered in Thorbecke’s review: the four decades from the 1950s through the 1980s, and then the 1990s and 2000 – 2017.

“Over the last 67 years, the definition of development and strategies to achieve it progressed and broadened from the maximisation of GDP in the 1950s, to employment creation and the satisfaction of basic needs in the 1970s, to structural adjustment and stabilisation in the 1980s and early 1990s, to poverty reduction, followed by sustainable and shared growth that dominated the scene until recently. The evolution in the conception of development culminated with the present broad-based concept of inclusive and sustainable growth.” (p. 101)

“A parallel progression occurred in development theory. During the 1950s the analytical framework was completely aggregative and relied on one-sector models. In the 1960s the prevailing framework became dualistic—distinguishing between an urban, modern-industrial sector and a rural, traditional-agricultural sector. Gradually as distributional issues became paramount, major breakthroughs in the analysis and measurement of poverty occurred. A concern for structural issues early on gave way to a concern with the role of institutions and the market in the development process. The somewhat idealised and misplaced faith in planning which characterised the early decades was replaced by an arguably controversial over-reliance on the effectiveness of markets as an engine of development and as a corollary the minimisation of the role of governments. Endogenous growth requires governments capable of intervening in areas such as education and health to yield the spill-over effects of investment in human capital on overall development. In the present era of globalisation, the appropriate roles of governments and markets are one of the most debated issues. Since the New Millennium, economics and more particularly development economics has taken a giant step to become more experimental drawing on the contributions of behavioural economics and randomised controlled trials.” (p. 101)

“The advance in the coverage and quality of the data and data systems needed for development analysis and policy over the last seven decades has been remarkable. Until the 1970s the statistical information available to researchers and government offices consisted almost exclusively of national income accounts, population, agricultural and manufacturing censuses and, in a few instances, simple input–output tables. Survey-type information on variables such as employment, income, consumption and savings patterns tended to be scarce and not very representative. Thus, in general, the existing data systems were not conducive to empirical studies, which could illuminate such fundamental issues as the state of income distribution and the incidence of poverty.” (pp. 101-102)

“From the 1980s on, the coverage of household survey data expanded enormously and allowed a plethora of microeconomic studies to be conducted on a large variety of issues related to human welfare such as health and education.” (p. 102)

**Annex Table 3.1: Thorbecke’s “Four elements of development doctrine” by time period**

<b>Period</b>	<b>Objectives</b>	<b>Theories</b> ----- <b>Models and Techniques</b>	<b>Policies and Strategies</b>	<b>Data systems</b>
1950s	GNP growth	‘Big Push’; ‘Take-Off’ and stages of growth; critical minimum effort thesis; aggregate investment criteria; infant industry argument ----- Harrod-Domar	Import substitution; industrialization; social overhead capital and infrastructure investment with emphasis on the urban sector	National income accounts
1960s	GNP growth; balance-of-payments equilibrium; employment	Economic dualism; balanced vs. unbalanced growth; inter-sectoral linkages; effective protection; human capital; shadow prices; choice of technique, patterns of growth; role of agriculture ----- Two-gap; semi input-output; simple general equilibrium; linear programming	Fine-tuning & appropriate prices; balanced growth between ag and industry; export promotion; foreign aid; regional integration; fiscal reforms; sectoral plans	National income accounts; input-output; employment censuses; Social National Accounts (SNA)
1970s	GNP growth; employment; income distribution; poverty alleviation; external equilibrium	Package approach in traditional rural areas; role of informal sector; urban-rural migration; appropriate tech.; tradeoff between output, employment, income distribution & poverty; socio-economic investment criteria; underdevelopment theory; dependency theory ----- Multiple objectives; CGE models; sectoral (e.g., ag.) models	Integrated rural development; comprehensive employment strategies; ‘redistribution with growth’; basic needs; asset redistribution; radical-collectivist	National income accounts; input-output (inter- and intra-sectoral); employment censuses; household surveys; informal sector surveys; demographic data

<b>Period</b>	<b>Objectives</b>	<b>Theories</b> ----- <b>Models and Techniques</b>	<b>Policies and Strategies</b>	<b>Data systems</b>
1980s	Stabilization; (external) balance-of-payments equilibrium; (internal) budgetary/monetary equilibrium; structural adjustment; efficiency	Endogenous growth; trade-growth links; relations between human capital & tech transfer; new institutional economics & role of institutions; interlocking factor markets; reliance on markets; policy analysis & measurement ----- Impact of fiscal & trade policies; CGE models applied to structural adjustment	Stabilization & structural adjustment; outward orientation; reliance on markets; privatization; minimization of role of government	Social Accounting Matrix (SAMs) and supporting data; comprehensive disaggregated large-scale household income & expenditure surveys
1990s	Continued adjustment; good governance and institution building; resurgence of poverty reduction goal; environmental and financial sustainability; limiting global capitalism impact on income distribution within countries	Role of institutions in dev.; path dependency & endogeneity of policies; roles of markets and government; economics of corruption; social capital as complement to human capital ----- Sources of growth; total factor productivity; growth regressions; CGE models to explore impact of adjustment policies	Stabilization and structural adjustment; outward orientation; reliance on markets; extending success elements of East Asia miracle to other developing countries; deregulation and liberalization; poverty reduction & improved socio-econ welfare; appropriate controls and regulations in wake of financial crisis	SAMs and supporting data; comprehensive disaggregated large-scale household income and expenditure surveys (LSMS); multiple-year surveys including subject poverty assessments; demographic and health surveys
2000-2017	Millennium dev. goals and sustainable dev. goals; inclusive and sustainable growth; human dev. consisting of multiple objectives; poverty and inequality reduction; reduced vulnerability	Experimental methods (RCTs) and behavioral economics; role of institutions and political economy of dev.; poverty traps; growth-inequality nexus; comprehensive definition of human dev. and inclusive growth strategy; globalization and development ----- Randomized and controlled trials (RCT); behavioral economics	Inclusive growth strategy; globalization as development strategy; search for pro-poor growth and pro-growth poverty reduction development strategies	Same as in 1990s; more micro, panel and longitudinal data sources; big data; RCTs

## Annex 4. Long-Term FSG Country Engagement and Research Center Support

The table below shows countries that had long-term FSG engagement, which usually involved multiple projects/grants (primarily from USAID) and in-country teams that included one or more MSU faculty members, except in Kenya, where no MSU faculty member was based in-country.

**Annex Table 4.1. Countries with Long-Term FSG Engagement**

Country	Dates	Projects	MSU Faculty a/
Nigeria	1960-1971 <sup>21</sup>	<a href="#">Univ. of Nsukka</a> ; <a href="#">Consortium for Study of Rural Dev.</a> ; <a href="#">Ag Sector Analysis and Simulation Research</a>	Eicher, Johnson, Vincent, Dike, Byerlee
Upper Volta	1977-1981	<a href="#">Integrated Rural Development in the Eastern ORD</a>	Eicher, Matlon, <a href="#">Wilcock</a> , <a href="#">Tapsoba</a> , <a href="#">Lassiter</a>
Senegal	1981-1992	<a href="#">Senegal Agricultural Research Project (SARP) and Senegal Agricultural Research II (SAR-II)</a>	<a href="#">Crawford</a> , <a href="#">Kamuanga</a> , <a href="#">Oehmke</a> <sup>22</sup>
Mali <sup>23</sup> ; also West Africa/Sahel	1985-2021	Mali Market Info ( <a href="#">PASIDMA</a> ), Mali National Food Security Strategy (SNSA), <a href="#">PROMISAM</a> , PROMISAM II), <a href="#">Mali Agriculture-Nutrition Linkages</a> ; INSAH-PRISAS; <a href="#">Sahel Regional Program</a> ; USAID/West Africa; <a href="#">PRESAO</a> ; PRePoSAM	Staatz, <a href="#">Dembélé</a> , <a href="#">Dioné</a> , <a href="#">Yade</a> , <a href="#">Diallo</a> , <a href="#">Temé</a> , <a href="#">Koné</a> , Kelly, Tefft, Haggblade, Theriault, Smale, Crawford, Ross
Zimbabwe	1983-87	Activities focused on Zimbabwe and on Southern Africa more generally	<a href="#">Eicher</a> , <a href="#">Bernsten</a> , Jayne
Rwanda	1985-2003 <sup>24</sup>	USAID/Rwanda grants in '85, '87, '92, then '92-'95 ( <a href="#">Rwanda Study</a> ) and '97-'03 under the FS-II <a href="#">Food Security Research Project</a> .	Weber, Shaffer, <a href="#">Clay</a> , <a href="#">Lassiter</a> , <a href="#">Tardif-Douglin</a> , Kelly, Donovan, Loveridge, Reardon

<sup>21</sup> Liverpool-Tasie and colleagues conceived and led two USAID-funded projects in Nigeria running from mid-2015 to mid-2021: [Nigeria Agricultural Policy Project](#) (NAPP) and [Nigeria Agricultural Policy Activity](#) (NAPA). Neither involved MSU faculty resident long-term in-country. The Jayne et al. [APRA](#) project (2016-2021 also involved field work in Nigeria but no in-country MSU faculty team.

<sup>22</sup> R. James Bingen (MSU Department of Resource Development/Community Sustainability) was the in-country team leader for SARP. Crawford was a SARP team member and Co-Director, then Director, of SAR-II.

<sup>23</sup> Given the over 35-year length of AEC/AFRE engagement in Mali, and of activities focused on the West Africa region, managed from the Bamako offices, it is not possible to list all the individual projects and the personnel involved here. See other tables in this annex for additional information about Mali-related grants and their focus.

<sup>24</sup> Early in his career (2015-2017), Ortega worked with Dan Clay in CSUS on coffee-related research activities under the [Africa Great Lakes Region Coffee Support Program](#), which focused on Rwanda and Burundi.

Country	Dates	Projects	MSU Faculty a/
Mozambique	1990-2017	USAID/Mozambique grants in '90 ( <a href="#">market information system</a> and <a href="#">capacity strengthening</a> ), '92, '97-'02, '02-04 (Moz/PARS), '02-'05 (sweet potato). <a href="#">Moz Research and Policy Dialogue</a> , Moz Sustainable Nutrition, HIV/AIDS (World Bank), Sweet Potato Project, World Vision PL480 Evaluation, ReSAKSS Mozambique, <a href="#">MOZCAPAN</a>	<a href="#">Boughton</a> , <a href="#">Tschirley</a> , <a href="#">Donovan</a> , <a href="#">Benfica</a> , <a href="#">Mlay</a> , <a href="#">Uaiene</a> , <a href="#">Cairns</a> , <a href="#">Cunguara</a> , <a href="#">Payongayong</a> , <a href="#">Weber</a>
Kenya	1996-2017	<a href="#">TAMPA-I</a> ('96-'01), <a href="#">TAMPA-II</a> ('01-'05), <a href="#">TAPRA</a> ('06-'11), <a href="#">TAPRA II</a> (2012-17)	Managed by Tegemeo; no MSU staff in-country; <a href="#">Weber</a> , <a href="#">Jayne</a> , <a href="#">Tschirley</a> , <a href="#">Smale</a> , <a href="#">Muyanga</a> , <a href="#">Mason</a> , <a href="#">Crawford</a>
Zambia	2002-2020	Zambia <a href="#">Food Security Research Project</a> ('99-'03), PROACTIVE II, Zambia Rural Sector Dev (World Bank), ReSAKSS Zambia. . .	<a href="#">Jayne</a> , <a href="#">Tschirley</a> , <a href="#">Chapoto</a> , <a href="#">Sitko</a> , <a href="#">Chamberlin</a> , <a href="#">Mason</a> , <a href="#">Nijhoff</a> , <a href="#">Govereh</a> , <a href="#">Ngoma</a>
Malawi	2014-17 2019-present 2021-present	Malawi Assoc Award to FS III, <a href="#">NAPAS</a> FSFW/ATI: <a href="#">MwAPATA</a> , <a href="#">POLSAT</a> USAID	<a href="#">Nankhuni</a> <a href="#">Jayne</a> , <a href="#">Muyanga</a> , <a href="#">Burke</a> , <a href="#">Burke</a> , <a href="#">Goeb</a> , <a href="#">Wineman</a>
Tanzania	2014-2020 2016-2020 2020-2024	USAID/Tanzania buy-in; <a href="#">ASPIRES</a> <a href="#">SERA BORA</a>	<a href="#">Nyange</a> , <a href="#">Minde</a> , <a href="#">Tschirley</a> , <a href="#">Muyanga</a> <a href="#">Maredia</a> , <a href="#">Reardon</a>
Myanmar	2014-2024	Food Security Policy Project MAPSA; MAPSA-II	<a href="#">Boughton</a> , <a href="#">Haggblade</a> , <a href="#">Belton</a> , <a href="#">Reardon</a> , <a href="#">Aung</a> , <a href="#">San</a>

a/ Includes AEC/AFRE faculty who were co-PIs, or who were recruited specifically to lead in-country teams. These teams generally included others recruited outside of MSU or in-country, and AEC/AFRE M.S. or Ph.D. students doing in-country research, who are not listed here. AEC/AFRE faculty resident in-country for significant periods, and the in-country project leads, are underlined.

The following table lists the food and agricultural research and policy analysis centers (spelled out in Acronyms) that received major long-term support through FSG projects. Centers that were established under FSG projects are so identified.<sup>25</sup> Entries in the table are sorted in approximate chronological order. The table essentially adds information, especially dates, to the earlier section on institutional capacity-building and partnerships under Key Thematic and Methodological Focus Areas.

**Annex Table 4.2. Agricultural Policy Research Centers Established or Receiving Major Support through FSG Projects, By Country a/**

Country	Center(s)	Time Period	FSG-Established?
Senegal	ISRA/BAME	1982–1992	Yes b/
Mali	OMA, IER, CSA, IPR/IFRA	1985 – 2021	Yes (OMA)
Kenya	Tegemeo Institute	1996 – 2017	
Zambia	IAPRI	2010–2012	Yes c/
Mozambique	SIMA CEPPAG	1991 – 2001 2012–2014	Yes Yes d/
Regional	ReNAPRI ANAPRI	2012 – 2022 2023	Yes
Tanzania	ASPIRES, SUA	2013	Yes (ASPIRES)
Myanmar	MDRI, CESD	201	
Nigeria (post-1980)	Univs. of Ibadan, Niger, Kebbi, Ebonyi PiLAF	2015 – 2020	Yes (PiLAF)
Uganda	EPRC	2019	
Malawi	MwAPATA	2019	Yes

a/ For additional details, see [FSP Synthesis Report IV. Building Locally Led Agricultural Policy Analysis Capacity: Lessons from Experience in Developing Countries](#).

b/ More recent support to the BAME (since 2015) was provided under the PAPA and PRCI projects.

c/ Planned/organized in 2010, officially incorporated in 2011 and launched in 2012.

d/ Established formally in 2012; became operational in 2014.

<sup>25</sup>“Established” means that the center was created and launched as an objective of, and with the financial and technical support of, an AEC/FSG-implemented project. The centers were, of course, formally established by the national government or national host institution concerned.



## Annex 5. Grants/Projects Implemented by AFRE Faculty, 1983 to 2023.

Annex Table 5.1. Food Security Group Funding Summary, 1983-2023.

### FSG Grant Funding Summary: 1983-2023

Grant a/	Time Period	Award Amount	# Awards
<b>1983-2002</b>			
FSA b/	9/84 - 11/92	\$4,049,773	1
FS-II c/	10/01/92 - 9/30/02	\$8,738,561	1
USAID/Global core		\$650,000	1
USAID/SD core		\$2,654,325	1
FSA + FS-II AA's + other		\$46,026,602	36
	<b>Period Total</b>	<b>\$62,119,261</b>	<b>40</b>
	<b>Period \$ per year</b>	<b>\$3,269,435</b>	
<b>2002-2012</b>			
FS-III Core	09/30/02 - 09/29/12	\$6,160,153	1
FS-III AA's		\$34,906,690	12
Other FSG		\$18,340,803	46
Add'l \$ thru Sep 2010		\$1,229,715	
Other FSG FY11+FY12		\$10,975,123	12
	<b>Period Total</b>	<b>\$71,612,484</b>	<b>71</b>
	<b>Period \$ per year</b>	<b>\$7,161,248</b>	
<b>2012-2023 d/</b>			
FSP core + AA's	6/12/13-1/14/19	\$60,236,693	17
PRCI core + AA's	5/15/19 - 5/14/24	\$20,625,820	10
Other USAID		\$12,935,818	14
Other		\$46,918,698	46
	<b>Period Total</b>	<b>\$140,717,029</b>	<b>87</b>
	<b>Period \$ per year</b>	<b>\$12,792,457</b>	

a/ Time periods generally run from Oct 1 of the year indicated to Sept 30 of the next year.

b/ Dates based on FSG Fact Sheet: <https://web.archive.org/web/20100612192805/>

[http://www.aec.msu.edu/fs2/fact/FMASTER\\_TC1.pdf](http://www.aec.msu.edu/fs2/fact/FMASTER_TC1.pdf) [this is one, not two, hyperlinks]

c/ Start date shown as 9/1/92 in food\_security.grants.1983-2004.doc

e/ This period covers October 2012 through December 2023, i.e., 3 months longer than the previous 2 periods of 10 fiscal years.

File=FSG\_Funding\_Summary.1983-2023.v6.xlsx; File Date=August 13, 2024

**Annex Table 5.2. Food Security Group Grants, 1983-2002 (Under FSA and FS II)**

<b>Granting Agency</b>	<b>Initial Date or Period</b>	<b>Grant Amount</b>	<b>Lead PI/Co-Pis</b>
USAID/Zimbabwe	9/1/83	\$113,000	Eicher, Weber
USAID for MSTAT	4/1/84	\$150,000	Freed, Weber
USAID/Washington	9/1/84	\$600,000	Eicher, Weber
USAID/Zimbabwe	9/1/84	\$400,000	Eicher, Weber
USAID/Washington	8/27/85	\$1,300,000	Weber, Eicher
USAID/Rwanda	9/1/85	\$250,000	Weber, Shaffer
USAID/Southern Africa	9/12/85	\$307,000	Weber, Eicher
USAID/Mali	9/24/85	\$142,000	Weber, Staatz
USAID/Senegal	7/24/86	\$353,000	Weber, Crawford
USAID/Somalia	7/24/86	\$170,000	Weber, Holtzman
USAID/Mali	11/17/86	\$93,000	Weber, Staatz
USAID/Mali	8/5/87	\$450,000	Weber, Staatz
USAID/Rwanda	9/1/87	\$1,200,000	Weber, Clay
USAID/Southern Africa	11/6/87	\$320,000	Weber, Bernsten
USAID/Washington	8/5/87	\$700,000	Weber
USAID/Mali	4/1/88	\$495,000	Weber, Staatz
USAID/Southern Africa	12/1/88	\$2,230,000	Weber, Bernsten
USAID/Mali	12/15/89	\$94,873	Staatz, Weber
USAID/Sahel, West Africa	9/1/89	\$600,000	Staatz, Weber
USAID/Washington	8/3/89	\$199,773	Weber
USAID/Mozambique	7/17/90	\$1,080,000	Weber, Tschirley
USAID/Washington	7/17/90	\$1,250,000	Weber, Crawford, Oehmke
USAID/Mali	9/16/91	\$300,000	Staatz, Weber
USAID/Washington-FSII-Phase 1(5 Years)	9/1/92	\$2,938,561	Weber, Staatz
USAID/Mali	12/1/92	\$547,000	Staatz, Weber
USAID/Sahel, West Africa	9/1/92	\$500,000	Staatz, Weber
USAID/Rwanda	9/1/92	\$2,130,000	Weber, Reardon, Clay
USAID/Mozambique	9/1/92	\$5,048,487	Weber, Tschirley
USAID/Washington-SD	10/15/93	\$900,000	Boughton, Howard, Weber
USAID/Washington-SD	10/1/93	\$267,395	Jayne, Weber
USAID/Washingto-SD	1/1/94	\$81,000	Weber, Strauss
USAID/Washington-SD	1/1/94	\$200,930	Reardon, Weber
USAID/Sahel, West Africa	5/19/94	\$499,981	Staatz, Weber
USAID/Washington-SD	9/26/94	\$555,000	Jayne, Reardon, Weber
USAID/Sahel, West Africa	1/1/95	\$3,000,000	Staatz, Weber
USAID/Ethiopia	12/3/95	\$1,619,000	Weber, Jayne
USAID/Washington-SD	1/1/95	\$350,000	Reardon, Jayne, Weber
USAID/Washington-G	9/1/96	\$650,000	Weber, Staatz
USAID/Washington-SD	1/1/96	\$300,000	Jayne, Reardon, Weber
Egerton University/Kenya	1/1/97	\$114,000	Jayne, Weber
Egerton Univ. Tampa I	1/10/99-6/31/01	\$198,000	Jayne, Weber
USAID/Washington, FS II Phase 2 Core+Buy-ins	6/01/97-9/30/03	\$5,800,000	Weber, Staatz & FS II core team
Mali (FS II PASIDMA + FS II Nutrition)	9/30/97-9/30/03	\$5,170,803	Staatz, Dembele, Yade, V.Kelly, Tefft, Weber
Rwanda FS II-Phase 2	9/30/97-9/30/03	\$1,896,000	Weber, Mpyisi, Donovan, V.Kelly
Mozambique FS II Phase 2 Mission Add-On	6/01/97-6/31/02	\$4,544,000	Tschirley, Weber & Moz. Team
Zambia FS II-Phase 2 Mission Add-On	9/30/99-9/30/03	\$4,400,000	Jayne, Weber, Tschirley, Donovan, Nijhoff
FS II Phase 2-Ethiopia Add-On	3/01/98-	\$2,000,000	
Mozambique-PARS Coop. Agreement	7/01/02-9/30/04	\$2,834,885	Tschirley, Weber, Boughton, Low
Tegemeo/Tampa II + NGO	7/24/01-7/23/05	\$1,301,788	Jayne, Tschirley, Crawford, Weber
Mozambique Sweet Potato Projects	7/01/02-4/01/05	\$1,287,875	Low, Tschirley
		<b>Total</b>	<b>\$61,932,351</b>

Source: Food\_Security\_Funding\_Sept\_2012+1983-2004.xlsx

**Annex Table 5.3. FS III and Related Project Funding, October 2002 through September, 2012**

	<b>Acct. #</b>	<b>Grant Amt.</b>
<b>FS III USAID/EGAT Core Contribution</b>	61-3170	\$6,160,153
<b>FS III Associate Awards:</b>		
FS III USAID/ASD Economic Growth and Trade	61-3172	\$1,400,000
Food Security Research Project Phase III		\$6,607,695
Africa Bureau - COMESA	61-3158	\$1,249,252
Mali PROMISAM II	61-3160	\$4,750,000
Mozambique Policy Analysis	61-3179	\$9,669,105
Zambia Food Security Research	61-3175	\$8,081,096
Food For Peace	61-2801	\$225,000
Malawi	61-2855	\$99,975
Mali Nutrition	61-3174	\$100,000
Mali PASIDMA	61-3173	\$200,000
Mali SNSA (PROMISAM)	61-3176	\$2,479,567
WARP (INSAH-PRISAS)	61-3171	\$300,000
WARP (Web/Internet)	61-3144	\$270,000
<b>FS III Grand Total (Number of Projects and Grant Amounts)</b>	<b>14</b>	<b>\$41,591,843</b>
<b>FS III Closely Related Projects</b>		
Tegemeo - TAPRA II	RC101650	\$2,593,331
BHEARD CIMMYT	RC102095	\$2,450,000
Mozambique Sustainable Nutrition (CIDA, RF & USAID)		\$2,020,499
Kenya/Tegemeo/TAPRA	RC105854	\$1,837,966
DAI - MATEP (USAID/Zambia)	RC103864	\$1,449,325
Kenya TEGEMEO Policy Work (USAID/Kenya)		\$1,422,319
ACF/PROACTIVE II, Policy Research for Ag. Competitiveness, Zambia	RC109831	\$1,360,672
COMESA AAMP - African Ag Markets Programme (AAMP)	RC109846	\$1,220,439
Syngenta Foundation - Strengthening Regional Integration in West Africa	RC069812	\$1,132,627
USDA/FAS/MCC - Impact Evaluation, Mozambique	RC104924	\$1,081,131
SIDA Bridge	RC101737	\$995,145
Hewlett Foundation - Strengthening Reg'l Trade in West Africa; Improved Market Info	RC109817	\$800,000
USAID - Expanding Bean Supply and Demand	RC102944	\$788,866
iAGRI - OSU/Tanzania	RC100739	\$755,226
SAGIC - Value Chain Assessment and Enhanced Staple Food Marketing, Senegal a/	RC103861	\$719,474
IFDC - USAID/WA West Africa Cotton Improvement Project (WACIP)	RC105851	\$623,363
IFAD-WCA	RC101460	\$500,000
Trilateral Cooperation	RC100242	\$491,887
Gates Foundation - Guiding Investments in Sustainable Ag. Markets in Africa (GISAMA)	RC069829	\$400,484
IFAD - MAFS	RC101553	\$400,000
World Food Program	RC101198	\$399,612
World Bank - Southern Africa Regional Trade - Phase 1	RC106095	\$305,927
Rockefeller - South Africa Maize	RC109848	\$297,312
Gates/World Vision - Raising Smallholder Incomes, Angola	RC069813	\$288,693
Wye College Cotton Subsector Policies	RC109838	\$186,910
SOAS-DfID Malawi - Monitoring/Evaluation Malawi Inputs Subsidy Programme	RC109820	\$150,195
USDA/CREES - Globalization of Agriculture: Training	RC104535	\$138,000
Re-SAKSS Zambia	RC109830	\$125,000
World Bank - Cotton Studies - Phase 3	RC109837	\$110,149
World Bank - Cotton Studies - Phases 1 & 2	RC109801	\$104,335
CLUSA-Senegal	RC100256	\$88,151

Continued next page

Annex Table 5.3, cont.

	<b>Acct. #</b>	<b>Grant Amt.</b>
World Bank - HTSPE (Fertilizer Strategy Review)	RC109814	\$60,000
World Vision - Evaluation of PL480 Title II Monetization, Mozambique 1997-2007	RC103858	\$58,539
World Food Program - SENAC (Activity 1)	RC103301	\$51,865
World Bank - Staatz Contributions to World Development Report, 2008	RC109854	\$48,705
FAO - Training Module on Price Analysis-West Africa	RC109819	\$43,127
DAI/MCC Mali Compact (Crawford)	RC103328	\$37,252
IRAM - Support to ECOWAS on the CAADP Process	RC109821	\$35,940
World Bank - Zambia Rural Sector Development	RC109815	\$33,970
World Food Program - SENAC (Activity 3)	RC103344	\$33,419
CLUSA-Gates-Mozambique	RC103336	\$33,355
IRAM	RC102045	\$33,347
World Bank - Mali Country Economic Memo	RC109828	\$32,242
ILRI Subagreement	RC109807	\$32,000
Rockefeller - NAAIAP	RC109873	\$31,632
Rockefeller - MINAG Support	RC109871	\$30,037
Re-SAKSS Mozambique (IWMI)	RC109827	\$30,000
World Bank - Ag Statistics	RC109806	\$29,833
CIPE Market Info Comparison	RC105485	\$29,767
Lund University/CATISA	RC106043	\$25,000
FAO - World Bank - Competitive Commercial Agriculture in Africa	RC109804	\$22,088
World Bank - HIV/AIDS Mozambique	RC109809	\$21,246
World Bank - Fertilizer Policy Toolkit CD	RC109872	\$19,000
World Bank - Fertilizer Policy Toolkit	RC106029	\$10,500
FAO - Occasional Paper on fertilizer marketing	RC105380	\$7,500
<b>Total Closely Related Projects (Number of Projects and Grant Amounts)</b>	<b>55</b>	<b>\$26,027,402</b>
<b>Grand Total (Number of Projects and Grant Amounts)</b>	<b>69</b>	<b>\$67,619,245</b>

Source: FS\_III.and.related\_project\_Funding\_through\_Sept2012.v4.xlsx

**Annex Table 5.4. FSP Core Funding, Buy-Ins, and Associate Awards**

<b>Name/Description</b>	<b>Dates</b>	<b>Amount Obligated a/</b>
Food Security Policy Leader Award	7/15/2013 - 1/14/2020	\$15,000,000
<b>Buy-Ins</b>		
USAID/Mali	10/20/2014– 1/14/2020	\$900,000
USAID/Tanzania (ASPIRES)	6/1/2016– 1/14/2020	\$6,000,000
USAID/Tanzania	10/20/2014– 1/14/2020	\$500,000
USAID ZAMBIA	6/1/2016– 1/14/2020	\$1,500,168
USAID/West Africa	10/20/2014– 1/14/2020	\$600,000
USAID/CD4AIS Toolkit	12/11/2017– 1/14/2020	\$700,000
USAID/Venezuela	12/11/2017– 1/14/2020	\$300,601
USAID/Lit Review	10/30/2018 – 1/14/2020	\$130,000
<b>Associate Awards</b>		
Food Security Policy Project (Myanmar)	9/24/2014-9/30/2020	\$6,995,307
Malawi New Alliance Policy Acceleration Support (NAPAS)	11/24/2014-2/27/2019	\$4,002,467
Senegal Agricultural Policy Project (PAPA)	7/27/2015-3/31/2019	\$6,000,000
Africa Great Lakes Coffee (AGLC)	7/20/2015-7/19/2018	\$1,376,805
Nigeria Agricultural Policy Project (NAPP)	7/1/2015-6/30/2020	\$11,363,537
Mali Associate Award (PRePoSAM)	2/17/2016 – 2/15/2021	\$3,267,807
Venezuela AA	7/24/2019 – 12/31/2020	\$600,000
Tanzania AA (SERA BORA)	1/1/2020 – 12/31/2024	\$1,000,000
	<b>Total Obligated</b>	<b>\$60,236,693</b>

Source: FSP Final Technical Report, 2020.

a/ For six of the projects shown in the table, USAID obligated (transferred to) MSU an amount that was different from the original award amount (higher in two cases and lower in four cases), depending on budgetary and other factors.

**Annex Table 5.5. PRCI Core Funding, Associate Awards, and Buy-Ins**

<b>Name/Description</b>	<b>Dates</b>	<b>Amounts Obligated</b>
PRCI Leader Award	5/15/2019 - 5/14/2024	\$10,800,000
COVID Buy-In		\$200,000
Mozambique Buy-In		\$175,820
Nutrition Buy-In		\$500,000
CACCI Buy-In (Climate Change)		\$1,450,000
Climate Change Research Buy-in		\$500,000
Malawi Buy-In		\$1,000,000
Ukraine War Buy-in		\$750,000
Malawi Associate Award		\$5,000,000
Tajikistan Buy-In		\$250,000
	<b>Total Obligated</b>	<b>\$20,625,820</b>

Source: Sheet 2 of FSG project funding by PI as of 1Aug2021.v3.xlsx

### Annex Table 5.6. International Grants by Non-FSG AFRE Faculty, 1997-2023

This table provides information covering 1997-2023 on (a) non-FSG grants and (b) participation in FSG grants by "non-FSG" faculty members, meaning faculty, mostly tenure-stream, who may participate in FSG projects (for examples, see Notes below) but who are not supervised by the FSG Co-Directors, whose appointments do not include an explicit assignment related to FSG, and those who may not self-identify as an FSG member. Grant totals shown here are amounts attributed to the listed faculty member based on their percentage participation in the grant (per transmittal or Project Document), not the total grant amounts (except in cases of sole PIs). Entries are sorted by faculty member and project title.

#### Notes:

\*The asterisks below Indicate projects managed by the Food Security Group. Grant amounts shown are the faculty member's co-PI percentage share of the total award amounts, which are reported above in Annex Tables 5.1 to 5.5.

Faculty Member	Project Title	Grant Total	Grant Years
Adelaja, Adesoji	Agrifood Youth Opportunity Lab	\$649,736	2017
Awokuse, Titus	*Feed the Future Innovation Lab for Food Security Policy Research, Capacity, and Influence	\$610,549	2019,2020,2021
Awokuse, Titus	*IDS – Nigeria (APRA)	\$107,386	2018,2020
Black, J	AGENTS OF CHANGE: A MULTIDISCIPLINARY PROTOCOL FOR ASSESSING CLIMATE IMPACTS; VULNERABILITY; AND ADAPTATION	\$16,216	2006
Caputo, Vincenzina	Belmont Forum Collaborative Research: The Role of Supermarkets as Key Agents in Systems of Sustainable Consumption and Production	\$63,473	2023
Caputo, Vincenzina	*Global Alliance for Improved Nutrition	\$91,958	2018,2019
Caputo, Vincenzina	*Global Alliance for Improved Nutrition (RC108745)	\$1,829	2021
Caputo, Vincenzina	Partnership: Meal Clicks: Tracking consumer preferences and demand for food consumed away from home ordered online	\$799,974	2023
DeYoung, David	2021 Coffee Development Report	\$6,938	2022
Dillon, Andrew	Credit, Advisory Services and Warehousing to Test Alternative Models of Financial Inclusion	\$90,966	2018
Dillon, Andrew	Examining the linkages from smallholder agriculture to nutrition using a methodological randomized trial to test distinct approaches to measuring and assessing farmer livelihoods	\$77,983	2018
Dillon, Andrew	Experimental Estimates of a workplace malaria testing and treatment program on worker earnings and productivity.	\$8,398	2012
Dillon, Andrew	Guiding Investments in Sustainable Agricultural Intensification in Africa (GISAIA)	\$781,549	2013
Dillon, Andrew	Malaria Productivity, and Access in Treatment: Experimental Evidence from Nigeria	\$334,427	2012

<b>Faculty Member</b>	<b>Project Title</b>	<b>Grant Total</b>	<b>Grant Years</b>
Dillon, Andrew	Preventing and Mitigating Periconceptional Iron Deficiency Anemia Among Women in Ghana Through Enhanced Animal-Source Food Value Chains: A Formative and Feasibility Study.	\$19,518	2017
Dillon, Andrew	Supplying New Sorghum Seed to Farming Households in Burkina Faso: leveraging social networks to enhance adoption	\$339,488	2013,2014,2016
Dillon, Andrew	Transforming Education in Cocoa Communities.	\$12,267	2017
Gammans, Matthew	Water scarcity in the Serbian Danube: Agricultural land use change and irrigation	\$48,873	2022
Gow, Hamish	POST HARVEST MANAGEMENT AND TECHNOLOGY WORKSHOP; PFID - F AND V	\$5,000	1997,2008
Harte, Janice	Improving the Handling & Packaging of Fresh Frozen Leg Quarters of Turkey & Chicken in the Global Market	\$2,124	1997,2009
Hoehn, John	PARTNERSHIPS FOR FOOD INDUSTRY DEVELOPMENT - FRUITS AND VEGETABLES; NICARAGUA	\$50,573	2004,2005
Jin, Songqing	Analytical work on climate change and agricultural factor markets in Ukraine	\$49,473	2023
Jin, Songqing	*IMPACT EVALUATION AND CAPACITY DEVELOPMENT SERVICES IN THE REPUBLIC OF MOZAMBIQUE AND BENIN	\$309,387	2008,2009,2010,2011,2012,2014
Jin, Songqing	*Impact Evaluation of the "Scaling Up Sweet Potato Through Agriculture and Nutrition (SUSTAIN)" Project in East and Southern Africa	\$329,510	2014,2015,2016,2017
Jin, Songqing	Land and Labor Institutions in the Process of Rural Development: Lessons from China	\$45,000	2009
Jin, Songqing	Land Research in China and India	\$45,000	2011,2012
Jin, Songqing	Land Research in China and India	\$15,000	2014
Jin, Songqing	MCC Lesotho Phase II - Evaluation for Site-Specific Land Policy Intervention	\$58,649	2012,2015
Jin, Songqing	MCC Lesotho Phase II - Evaluation for Site-Specific Land Policy Intervention	\$195,750	2011,2012
Jin, Songqing	Research on the agricultural productivity effects of one of India's workfare programs	\$23,000	2023
Jin, Songqing	*Trilateral Cooperation-Food Security USAID, Brazil, Mozambique	\$272,972	2011,2014
Jin, Songqing	*Trilateral Cooperation-Food Security USAID, Brazil, Mozambique	\$77,947	2015
Joshi, Satish	ENVIRONMENTAL/ECONOMIC EVALUATION OF CELLULOSE DERIVED FUELS FOR THE CANADA/US LIGHT DUTY VEHICLE FLEETS	\$128,018	2003,2004
Joshi, Satish	ENVIRONMENTAL/ECONOMIC EVALUATION OF CELLULOSE DERIVED FUELS FOR THE CANADA/US LIGHT DUTY VEHICLE FLEETS:	\$93,153	2006
Joshi, Satish	SUSTAINABLE SYSTEMS ANALYSIS OF BIOFUELS FOR LIGHT-DUTY VEHICLES	\$290,849	2008,2010
Liverpool-Tasie, Lenis	*A Research Strategy to Understand the Impacts and Impact Pathways of Food, Agricultural & Nutrition	\$29,990	2019



<b>Faculty Member</b>	<b>Project Title</b>	<b>Grant Total</b>	<b>Grant Years</b>
Liverpool-Tasie, Lenis	*A research study on food systems transformation and associated overweight and obesity burden in select countries in Sub Saharan Africa	\$26,483	2019
Liverpool-Tasie, Lenis	*Actionable research to support African MSMEs to supply affordable, safe, and nutritious foods	\$2,000,000	2022
Liverpool-Tasie, Lenis	Converted - IBSS: Participatory Ensemble Modeling to Study Multiscale Social and Behavioral Dynamics of Food Security in Dryland West Africa	\$108,476	2014
Liverpool-Tasie, Lenis	*Enhancing Knowledge and Capacity to Strengthen Agricultural and Food Security Policy Processes in Nigeria	\$11,249,999	2015,2017,2018,2019,2020
Liverpool-Tasie, Lenis	Evaluation of community-based legal aid programs for women's land rights in Tanzania	\$23,394	2013
Liverpool-Tasie, Lenis	*Feed the Future Innovation Lab for Food Security Policy Research, Capacity, and Influence	\$610,549	2019,2020,2021
Liverpool-Tasie, Lenis	*Guiding Investments in Sustainable Agricultural Intensification in Africa (GISAIA)	\$781,549	2013
Liverpool-Tasie, Lenis	*IDS – Nigeria (APRA)	\$107,386	2018,2020
Liverpool-Tasie, Lenis	*Impacts of COVID-19 pandemic and related policy responses on fish supply chains in all six geopolitical zones of Nigeria	\$5,100	2020
Liverpool-Tasie, Lenis	*Nigeria Agriculture Policy Activity	\$678,760	2021
Liverpool-Tasie, Lenis	*Nigeria Data Collection Analysis	\$97,020	2019,2021
Liverpool-Tasie, Lenis	*STUDY ON RAPID TRANSFORMATION OF THE POULTRY VALUE CHAIN IN NIGERIA: IMPLICATIONS FOR ECONOMIC GROWTH & EMPLOYMENT	\$72,829	2017
Loveridge, Scott	AGENTS OF CHANGE: A MULTIDISCIPLINARY PROTOCOL FOR ASSESSING CLIMATE IMPACTS; VULNERABILITY; AND ADAPTATION	\$3,742	2006
Loveridge, Scott	BORLAUG LEAP FELLOWS	\$19,950	2007
Loveridge, Scott	ENHANCING AGRICULTURAL-BASED ECONOMIC DEVELOPMENT IN RURAL COMMUNITIES: A PARTNERSHIP TO INTERNATIONALIZE TEACHING	\$12,000	2006
Lupi, Frank	INTEGRATING ECOLOGY AND ECONOMICS FOR MANAGED FOREST LANDSCAPES: A SYSTEMS APPROACH	\$74,841	2006,2007
Lupi, Frank	Lake Erie Algal Blooms Economic Impacts	\$14,550	2012
Mason-Wardell, Nicole	*Raising crop response: bidirectional learning to catalyze sustainable intensification at multiple scales	\$239,223	2016,2017,2018,2019
Mason-Wardell, Nicole	*CDAIS toolkit Buy-in	\$49,000	2018

<b>Faculty Member</b>	<b>Project Title</b>	<b>Grant Total</b>	<b>Grant Years</b>
Mason-Wardell, Nicole	*Feed the Future Innovation Lab for Food Security Policy Research, Capacity, and Influence	\$610,549	2019,2020,2021
Mason-Wardell, Nicole	*Food Security Policy	\$1,305,500	2013,2014,2015,2016,2017,2018
Mason-Wardell, Nicole	*Food Security Policy	\$87,542	2018,2019
Mason-Wardell, Nicole	*Food Security Policy - Zambia Buy-In	\$175,000	2018
Mason-Wardell, Nicole	*Food Security Research Project - Phase III	\$1,144,481	2011,2012,2013,2014,2015
Mason-Wardell, Nicole	Site-specific soil data management for improvement of soil productivity and farm-level profitability for marginal arable lands of Ethiopia and Niger	\$76,018	2020
Mason-Wardell, Nicole	*Tegemeo Agricultural Policy Research and Analysis II	\$199,792	2013
McKendree, Melissa	Crossing-Paths: Cross-cultural Exchange on Cross-bred Cattle Markets	\$99,999	2021
Myers, Robert	*Analysis of Market- and Household Level Effects of WFP Local and Regional Food Aid Procurement	\$179,825	2012
Myers, Robert	BORLAUG LEAP FELLOWS PROGRAM: EFFICIENT RISK SHARING IN GROUP LENDING AND THE EFFECTS OF CREDIT	\$10,000	2007
Nakasone, Eduardo	*Global Alliance for Improved Nutrition	\$109,200	2018,2019
Nakasone, Eduardo	*Global Alliance for Improved Nutrition (RC108745)	\$1,407	2021
Oehmke, James	BIOTECHNOLOGY ECONOMICS	\$5,000	2001
Oehmke, James	*IMPACT ASSESSMENT OF ABSP-I IPR AND TECHNOLOGY TRANSFER ACTIVITIES	\$17,214	2004
Ortega, David	African Great Lakes Coffee Project	\$278,000	2015,2016,2017
Ortega, David	An Integrated Economic Study of U.S. Food Safety Issues from Imported Food Products	\$10,923	2013
Ortega, David	*Associate Award Application (RFAAA) under the Feed the Future Innovation Lab for Food Security Policy, AID-OAA-L-13-00001 Venezuela	\$225,000	2019,2020
Ortega, David	Coordinated Approach to Coffee Leaf Rust - Economic Cost Benefit Analysis of Control Methods	\$37,026	2022
Ortega, David	*Global Alliance for Improved Nutrition	\$91,958	2018,2019
Ortega, David	*Global Alliance for Improved Nutrition (RC108745)	\$1,969	2021
Ortega, David	Malawi - Integrating Nutrition in Value Chains (INVC)	\$161,992	2012,2014,2015,2016,2017
Ortega, David	Market Potential for Midwestern Pork in China	\$99,879	2013

<b>Faculty Member</b>	<b>Project Title</b>	<b>Grant Total</b>	<b>Grant Years</b>
Porter, Maria	Credit, Advisory Services and Warehousing to Test Alternative Models of Financial Inclusion	\$50,000	2018
Porter, Maria	*Global Alliance for Improved Nutrition	\$218,401	2018,2019
Porter, Maria	*Impact Evaluation of the "Scaling Up Sweet Potato Through Agriculture and Nutrition (SUSTAIN)" Project in East and Southern Africa	\$329,510	2014,2015,2016,2017
Porter, Maria	Supplying New Sorghum Seed to Farming Households in Burkina Faso: leveraging social networks to enhance adoption	\$339,488	2013,2014,2016
Porter, Maria	TRUST IN FINANCIAL SERVICES FOR AGRICULTURE IN ETHIOPIA: A FIELD EXPERIMENT ON PICTURE-BASED CROP MONITORING	\$39,995	2020
Reardon, Thomas	*A Research Strategy to Understand the Impacts and Impact Pathways of Food, Agricultural & Nutrition	\$29,990	2019
Reardon, Thomas	*A research study on food systems transformation and associated overweight and obesity burden in select countries in Sub Saharan Africa	\$27,285	2019
Reardon, Thomas	ACCESS TO MODERNIZING VALUE CHAINS BY SMALL FARMERS IN INDONESIA AND NICARAGUA	\$599,942	2008,2009
Reardon, Thomas	*Agriculture and Nutrition Policy Activity Tanzania Associate Award	\$348,576	2019,2020,2021
Reardon, Thomas	ASEAN Food Security Conference - Short Term Consultancy under the ASEAN Economic Community Blueprint	\$6,842	2010
Reardon, Thomas	BEST PRACTICES AND STRATEGIES FOR PROMOTING NONFARM EMPLOYMENT CREATION IN RURAL DEVELOPMENT IN LATIN AMERICA	\$17,500	2001
Reardon, Thomas	Belmont Forum Collaborative Research: The Role of Supermarkets as Key Agents in Systems of Sustainable Consumption and Production	\$65,397	2023
Reardon, Thomas	*CDAIS toolkit Buy-in	\$49,000	2018
Reardon, Thomas	CHILE HORTICULTURE SUCCESS LESSONS (PROJECT SOW TO USDA/CSREES)	\$56,342	2004
Reardon, Thomas	COLLABORATIVE FRUIT AND VEGETABLE INDUSTRY DEVELOPMENT	\$60,000	2001,2002,2003
Reardon, Thomas	EMERGING VERTICAL COORDINATION IN ASIAN FOOD SYSTEMS (AMONG FARMS; PROCESSORS; WHOLESALERS AND SUPERMARKETS) IMPLICATION	\$285,433	2007
Reardon, Thomas	EMERGING VERTICAL COORDINATION IN ASIAN FOOD SYSTEMS (AMONG FARMS; PRODESSORS; WHOLESALERS AND SUPERMARKETS)	\$30,000	2008
Reardon, Thomas	*Feed the Future Innovation Lab for Food Security Policy Research, Capacity, and Influence	\$610,549	2019,2020,2021
Reardon, Thomas	FOOD POLICY SUPPORT IN INDONESIA	\$9,948	2004,2005
Reardon, Thomas	*Food Security Policy	\$1,305,500	2013,2014,2015,2016,2017,2018
Reardon, Thomas	*Food Security Policy	\$87,542	2018,2019
Reardon, Thomas	*FSP Tanzania Buy-In	\$210,000	2018

<b>Faculty Member</b>	<b>Project Title</b>	<b>Grant Total</b>	<b>Grant Years</b>
Reardon, Thomas	*Global Alliance for Improved Nutrition	\$91,958	2018,2019
Reardon, Thomas	*Global Alliance for Improved Nutrition (RC108745)	\$1,829	2021
Reardon, Thomas	HORTICULTURAL MARKETING AND PRODUCTION IN CHINA; CASE STUDY OF THE GREATER BEIJING AREA	\$21,975	2006
Reardon, Thomas	*Impacts of COVID-19 pandemic and related policy responses on fish supply chains in all six geopolitical zones of Nigeria	\$4,950	2020
Reardon, Thomas	Improving Access to the shrimp value chain for small farmers in Indonesia	\$41,569	2011,2012
Reardon, Thomas	*Improving Food Security Research and Analysis Capacity in Burma	\$187,500	2012,2013,2014
Reardon, Thomas	International Food Policy Research Institute (IFPRI) / Emerging Vertical coordination in Asian Food Systems Implications for Growth, Efficiency, Equity, and Sustainability.	\$20,000	2012
Reardon, Thomas	International Food Policy Research Institute (IFPRI) / Emerging Vertical coordination in Asian Food Systems Implications for Growth, Efficiency, Equity, and Sustainability.	\$233,574	2010
Reardon, Thomas	International Food Policy Research Institute (IFPRI) / Emerging Vertical coordination in Asian Food Systems Implications for Growth, Efficiency, Equity, and Sustainability.	\$62,290	2012
Reardon, Thomas	MODIFICATION 3: RAISE/SPS RA-1: BENCHMARKING/ACTIVITY 2: PRIVATE STANDARDS IN 5 LACS	\$13,819	2003
Reardon, Thomas	MODIFICATION 4: RAISE/TRENDS-TRENDS/PRIVATE SECTOR AGRIFOOD STANDARDS IN GLOBAL MARKETS	\$14,056	2003
Reardon, Thomas	NICARAGUA DYNAMIC MARKETS RESEARCH PROJECT	\$26,478	2006
Reardon, Thomas	*Nigeria Data Collection Analysis	\$97,020	2019,2021
Reardon, Thomas	PARTNERSHIPS FOR FOOD INDUSTRY DEVELOPMENT - FRUITS AND VEGETABLES; GUATEMALA	\$8,000	2004
Reardon, Thomas	Private sector responses to Covid-19 disruptions in potato and fish value chains in Kenya	\$5,000	2021
Reardon, Thomas	RAISE CROATIA; RETAIL MARKET CHANGES	\$6,772	2004
Reardon, Thomas	Research in Indonesia by Dale Yi	\$49,876	2009
Reardon, Thomas	REVIEW OF USAID/NICARAGUAS S02 STRATEGY	\$5,392	2002
Reardon, Thomas	STRENGTHENING INSTITUTIONS FOR INVESTMENT CLIMATE AND COMPETITIVENESS	\$190,000	2008
Reardon, Thomas	*STUDY ON RAPID TRANSFORMATION OF THE POULTRY VALUE CHAIN IN NIGERIA: IMPLICATIONS FOR ECONOMIC GROWTH & EMPLOYMENT	\$72,829	2017
Reardon, Thomas	SUPERMARKETS AND AGRICULTURAL DEVELOPMENT IN MEXICO	\$251,944	2005

<b>Faculty Member</b>	<b>Project Title</b>	<b>Grant Total</b>	<b>Grant Years</b>
Reardon, Thomas	THE RISE OF SUPERMARKETS IN INDONESIA: CHALLENGES AND OPPORTUNITIES FOR SMALLHOLDER FARMERS AND IMPLICATIONS	\$54,000	2006
Reardon, Thomas	THE RISE OF SUPERMARKETS IN VIETNAM: CHALLENGES AND OPPORTUNITIES FOR SMALL HOLDER FARMERS	\$931	2007
Reardon, Thomas	THE RISE OF SUPERMARKETS IN VIETNAM: CHALLENGES AND OPPORTUNITIES FOR SMALL HOLDER FARMERS	\$5,910	2006
Reardon, Thomas	THE RISE OF SUPERMARKETS IN ZAMBIA: TOWARD THE DEVELOPMENT OF A DIAGNOSTIC TOOL TO EVALUATE AND IMPROVE SMALLHOLDER FAR	\$10,455	2005
Reardon, Thomas	THE RISE OF SUPERMARKETS; PRIVATE STANDARDS; AND THE CAPACITY OF PRODUCERS TO RESPOND	\$30,000	2004
Reardon, Thomas	TRENDS IN PRIVATE SECTOR STANDARDS	\$250	2003
Reardon, Thomas	Value Chains in Asia "Reta 14"	\$128,556	2013
Reardon, Thomas	Value Chains in Asia "Reta 14"	\$41,550	2012
Reardon, Thomas	Value Chains in Bangladesh	\$130,746	2012,2013,2014
Robison, Lindon	SOCIAL CAPITAL ANNOTATED BIBLIOGRAPHY	\$9,240	2002,2003
Ross, Brent	Belmont Forum Collaborative Research: The Role of Supermarkets as Key Agents in Systems of Sustainable Consumption and Production	\$63,473	2023
Ross, Brent	CFP FY21 China Supply Chain Management	\$41,288	2021
Sears, Molly	Water scarcity in the Serbian Danube: Agricultural land use change and irrigation	\$120,964	2022, 2023
Schmid, Allan	TOWARD IMPROVED MAIZE MARKETING AND TRADE POLICIES TO PROMOTE HOUSEHOLD FOOD SECURITY IN SOUTHERN AFRICA	\$29,731	2004
Schmid, Allan	ZAMBIA: RURAL SECTOR DEVELOPMENT	\$3,397	2005
Shupp, Robert	Great Lakes Watershed Ecological Sustainability Strategy Phase II: Payments for Agricultural Ecosystem Services	\$59,636	2012,2013,2014
Swinton, Scott	Productivity, Sustainability and Marketing Assessment in Central America; Bean/Cowpea Collaborative Research Support Project (CRSP)	\$416,628	2003-07
Swinton, Scott	Economic Impact Assessment Research for the HGBF-funded Agriculture for Basic Needs Project	\$113,916	2010-12
Thornsby, Suzanne D	AGENTS OF CHANGE: A MULTIDISCIPLINARY PROTOCOL FOR ASSESSING CLIMATE IMPACTS; VULNERABILITY; AND ADAPTATION	\$17,463	2006
Thornsby, Suzanne D	Alternative Sales Opportunities in the Mainland Europe Market	\$5,000	2009
Thornsby, Suzanne D	CAPACITY BUILDING FOR TART CHERRY EXPORTS TO CHINA	\$32,784	2006

<b>Faculty Member</b>	<b>Project Title</b>	<b>Grant Total</b>	<b>Grant Years</b>
Thornsbury, Suzanne D	CHINA PRODUCE SUPPLY CHAINS	\$7,000	2007
Thornsbury, Suzanne D	ECONOMIC IMPLICATIONS OF U S SERBIA AND MONTENEGRO TRADE IN TART CHERRIES	\$8,420	2005
Thornsbury, Suzanne D	GLOBAL COMPETITION IN HORTICULTURAL MARKETS	\$1,500	2006
Thornsbury, Suzanne D	NEW MARKETS FOR U S TART CHERRY PRODUCTS: POLAND	\$76,777	2004
Thornsbury, Suzanne D	Philippine Bakery Industry Distribution Channels	\$10,000	2009
Valle de Souza, Simone	Piloting Integrated Insect-to-fish farming systems in Malawi	\$1,903	2021
Weatherspoon, Dave	BOURLAG LEAP FELLOWS PROGRAM/HIKUEPI B KATIJIUONGUA	\$19,998	2007
Weatherspoon, Dave	LEAP Borlaug Fellowship for Athur Mabiso	\$19,999	2009
Weatherspoon, Dave	MODIFICATION 4: RAISE/TRENDS-TRENDS/PRIVATE SECTOR AGRIFOOD STANDARDS IN GLOBAL MARKETS	\$15,138	2003
Weatherspoon, Dave	PARTNERSHIP FOR FOOD INDUSTRY DEVELOPMENT - FRUITS AND VEGETABLES (PFID-F AND V) NICARAGUA 61-2915	\$118,654	2005
Weatherspoon, Dave	PARTNERSHIPS FOR FOOD INDUSTRY DEVELOPMENT - FRUITS AND VEGETABLES; INDIA PROJECT	\$40,500	2004
Weatherspoon, Dave	PARTNERSHIPS FOR FOOD INDUSTRY DEVELOPMENT - FRUITS AND VEGETABLES; NICARAGUA	\$252,864	2004,2005
Weatherspoon, Dave	PARTNERSHIPS FOR FOOD INDUSTRY DEVELOPMENT - FRUITS AND VEGETABLES; SOUTH AFRICA COLLABORATION PROJECT	\$20,000	2004
Weatherspoon, Dave	PARTNERSHIPS FOR FOOD INDUSTRY DEVELOPMENT - FRUITS AND VEGETABLES/AZERBAIJAN-ASSESSMENT PLAN	\$5,722	2005
Weatherspoon, Dave	PARTNERSHIPS FOR FOOD INDUSTRY DEVELOPMENT - FRUITS AND VEGETABLES/SOUTHERN AFRICA REGIONAL PROJECT	\$404,148	2004,2005
Weatherspoon, Dave	PARTNERSHIPS FOR FOOD INDUSTRY DEVELOPMENT-FRUITS AND VEGETABLES; SOUTH AFRICA COLLABORATION PROJECT	\$10,000	2003
Weatherspoon, Dave	THE RISE OF SUPERMARKETS; PRIVATE STANDARDS; AND THE CAPACITY OF PRODUCERS TO RESPOND	\$16,000	2004
Weatherspoon, Dave	TRENDS IN PRIVATE SECTOR STANDARDS	\$250	2003

<b>Faculty Member</b>	<b>Project Title</b>	<b>Grant Total</b>	<b>Grant Years</b>
Wu, Felicia	An Agent-Based Model of Insect Adaptation to Transgenic Insecticidal Corn	\$74,995	2015
Wu, Felicia	Mycotoxins as a risk factor in childhood growth impairment worldwide	\$359,390	2013
Wu, Felicia	The Human Health Risk of Aflatoxin M1 in Dairy Products	\$8,289	2020,2021
Wu, Felicia	Training Caregivers to enhance early child neurodevelopment in the prevention of konzo disease from toxic cassava in the Democratic Republic of Congo	\$2,015	2019,2020
Zhao, Jinhua	Collaborative Research: Conservation Tillage for Sustainable Food, Energy and Water Systems: Linked Econometric and Process-based Models	\$54,878	2020
Zhao, Jinhua	IBSS: The Influence of Short-Term Financial Incentives on Social Norms and Behaviors	\$25,771	2013
Zhao, Jinhua	Interdependent Dynamics of Food, Energy and Water in Kazakhstan and Mongolia: Connecting LULCC to the Transitional SocioEcological Systems	\$10,528	2020,2021,2022
Zhao, Jinhua	Quantifying human and climate impacts on wetland ecosystems in the Lower Mekong River Basin	\$19,775	2017,2018,2019,2020

Source: MSU Contract and Grant Administration Data.

**Annex Table 5.7. Externally Funded Projects 2011-20 by Theme with Web Links**

<ul style="list-style-type: none"> <li>• <b>Sustainable Agricultural Intensification and Capacity Building Projects</b> <ul style="list-style-type: none"> <li>○ <a href="#">Guiding Investments in Sustainable Agricultural Intensification in Africa - GISAIA</a></li> <li>○ <a href="#">The Influence of Short-Term Financial Incentives on Social Norms and Behaviors in Sanjiangyuan Region - China</a></li> </ul> </li> <li>• <b>Food Security &amp; Food Policy Research/Outreach Programs</b> <ul style="list-style-type: none"> <li>○ <a href="#">Feed The Future Innovation Lab for Food Security Policy</a></li> <li>○ <a href="#">Zambia Food Security Research Project III (FSRP III)</a></li> <li>○ <a href="#">Strengthening Regional Agricultural Integration Phase II (SRAI II)</a></li> <li>○ <a href="#">Kenya - Tegemeo Agricultural Policy Research and Analysis Project - TAPRA II</a></li> <li>○ <a href="#">Project to Mobilize Food Security Initiatives in Mali - Phase II</a></li> <li>○ <a href="#">Mozambique Policy Analysis and Planning Capacity for Improved Food Security and Nutrition Outcomes - MOZCAPAN</a></li> </ul> </li> <li>• <b>Impact Evaluation of New Agricultural Technology, Health &amp; Education Programs</b> <ul style="list-style-type: none"> <li>○ <a href="#">Impact Evaluation of the “Scaling Up Sweet Potato Through Agriculture and Nutrition Project (Sustain)” in East and Southern Africa</a></li> <li>○ <a href="#">Malaria, Productivity and Access to Treatment: Experimental Evidence from Nigeria</a></li> <li>○ <a href="#">Performance Monitoring and Impact Evaluation of Bean Technology Transfer Project in Guatemala, Nicaragua, Honduras and Haiti</a></li> <li>○ <a href="#">Strengthening Impact Assessment in the CGIAR System - SIAC</a></li> <li>○ <a href="#">Impact Assessment of Bean/Cowpea &amp; Dry Grain Pulses CRSP: Research, Outreach &amp; Training Investments</a></li> <li>○ <a href="#">Impact Evaluation of the Yaajeende Senegal Agricultural Development Project</a></li> <li>○ <a href="#">Impact Evaluation of Raising Incomes of Smallholder Farmers in the Central Highlands of Angola</a></li> <li>○ <a href="#">Impact Evaluation and Capacity Development Services in the Republic of Mozambique and Benin</a></li> </ul> </li> <li>• <b>Value Chain Research, Food System &amp; Capacity Building Projects</b> <ul style="list-style-type: none"> <li>○ <a href="#">Improving the Inclusiveness of Agricultural Value Chains in West and Central Africa</a></li> <li>○ Capacity Development for Modernizing African Food Systems - <a href="#">MAFS</a></li> <li>○ <a href="#">Global Center for Food Systems Innovation –AFRE Collaboration</a></li> </ul> </li> <li>• <b>Training/Capacity Building</b> <ul style="list-style-type: none"> <li>○ <a href="#">The Tanzania Innovative Agricultural Research Initiative - iAGRI</a></li> <li>○ <a href="#">AID-Impact Evaluation &amp; Strengthening Local Capacity to Monitor and Evaluate Food Security in Cambodia Borlaug Higher Education for Agricultural Research and Development (BHEARD) Program</a></li> <li>○ <a href="#">Uganda Training Subaward: Borlaug Higher Education for Agricultural Research and Development (BHEARD) Program</a></li> </ul> </li> <li>• <b>Emerging Topics</b> <ul style="list-style-type: none"> <li>○ <a href="#">Market Potential for Midwestern Pork in China</a></li> <li>○ <a href="#">Mycotoxins as a Risk Factor in Childhood Growth Impairment Worldwide</a></li> </ul> </li> </ul>
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## Annex 6. MSU International Publication Series and Key Reports

### International Publication Series

Early publication series established by AEC/AFRE included:

- Agricultural Economic Reports
- Ag Econ Staff Papers

The following publication series were established during the 1970s to 1990s in order to report on work undertaken in externally funded international research and outreach projects. (Note: some of the archived web links below are slow to open up.) The first four were joint publications of AEC and the Department of Economics. The IDP/IDWP/IDPRP/IDPPS series were listed the same way but had little if any participation from Economics faculty.

- [MSU Rural Development Papers](#). 1978–1980
- [MSU Rural Development Series Working Papers](#). 1979–1982
- [African Rural Economy Papers](#). 1972–1980
- [African Rural Employment Papers](#). 1972–1980
- [African Rural Economy \(Employment\) Working Papers](#). 1974–1982
- [MSU International Development Papers](#). 1982–2004
- [MSU International Development Working Papers](#). 1982–2017
- [MSU International Development Reprint Papers](#). 1986–1992
- [MSU International Development Policy Syntheses](#). 1996–2016

The above publication series are catalogued in the [MSU Library](#) and also in [AgEcon Search](#). See [this AFRE site](#) for information about archiving of FSG publications. A [separate archived website](#) lists some older internationally oriented publications beginning in the mid-1950s.

The [MSU/AFRE site within AgEcon Search](#) is perhaps the most complete single source. It shows the following holdings, which include the last four series listed above as well as series established in connection with more recent projects (NAPA, FSP, and PRCI):

**Department of Agricultural, Food, and Resource Economics (2,140)**

[Agricultural Economic Report Series \(147\)](#) [Food Security Collaborative Policy Briefs \(199\)](#) [Food Security Collaborative Working Papers \(363\)](#)  
[Food Security International Development Papers \(26\)](#) [Food Security International Development Policy Syntheses \(103\)](#)  
[Food Security International Development Working Papers \(163\)](#) [Graduate Research Master's Degree Plan B Papers \(348\)](#)  
[Miscellaneous Publications \(23\)](#) [NAPA Papers \(34\)](#) [Staff Paper Series \(734\)](#)

**Feed the Future Innovation Lab for Food Security Policy Research, Capacity, and Influence (PRCI) (36)**

[PRCI Annual Reports \(2\)](#) [PRCI Policy Briefs \(15\)](#) [PRCI Policy Research Notes \(4\)](#) [PRCI Reports \(1\)](#) [PRCI Research Papers \(14\)](#)

**Feed the Future Innovation Lab for Food Security (FSP) (329)**

[FSP Policy Briefs \(142\)](#) [FSP Research Papers \(170\)](#) [FSP Myanmar Research Highlights \(17\)](#)

Regarding the above AgEcon Search list:

- The first section above includes:
  - Two categories with “collaborative” in the name. This refers to publication series that were established within specific countries (e.g., Zambia, Mozambique, Mali, Myanmar, Malawi) where long-term AFRE international projects were implemented under FSA, FS II, or FS III in collaboration with local government or research organizations.

- Similar to this is the entry for NAPA Papers, which were published under a recent long-term project implemented in Nigeria.
- Master’s Degree Plan B papers were submitted to AgEcon Search for archive purposes because until recently, unlike Master’s Degree theses, they were not catalogued in the MSU Library.
- The FSP and PRCI cooperative agreements were funded under USAID’s Feed the Future initiative, which required special marking and branding for project outputs. This necessitated creating new publication series specific to these two projects, as indicated in the second and third sections of the AgEcon Search listing above.

### **Selected Key FSG Reports/Publications**

Summary and evaluative information regarding FSG research, training, and policy analysis and outreach projects can be found in the following:

1. Formal evaluation reports prepared by USAID for the FSA, FS II, FS III, and FSP cooperative agreements. These can be obtained from USAID’s [Development Experience Clearinghouse](#) (DEC).
2. End-of-project final technical reports from these projects and others funded by USAID; also available from the DEC.
3. Weber, Michael T., John M. Staatz, John S. Holtzman, Eric W. Crawford, and Richard H. Bernstein. “Informing Food Security Decisions in Africa: Empirical Analysis and Policy Dialogue.” *Amer. J. of Agr. Econ.* 70(1988):1044-1052.
4. End-of-project synthesis reports prepared under FSP in early 2020, available on the [FSP website](#):
  - a. Synthesis Report I. Advancing Research, Policy, and Capacity for Food System Transformation. Synthesis of Achievements from the Feed the Future Innovation Lab for Food Security Policy.
  - b. Synthesis Report II. The Changing Face of African Farmland in an Era of Rural Transformation.
  - c. Synthesis Report III. Rural and Agrifood Systems in Transforming Economies in Africa and Asia.
  - d. Synthesis Report IV. Building Locally Led Agricultural Policy Analysis Capacity: Lessons from Experience in Developing Countries.