September 13, 2016

Food Security Project Workplan October 1, 2016 – 30 September, 2017

1. Summary

The FSPP workplan for FY 17 builds on accomplishments and lessons learned during the first two years of implementation. We focus on generating evidence for enabling key stakeholders, especially the new government, to promote broad-based agricultural transformation and rural economic growth. The project will use carefully targeted and focused research, together with policy analysis and engagement, to improve public policies and investments. Activities will be undertaken in a way that strengthens coordination among key stakeholders – government, private sector, civil society and donors. The outcome will be a policy environment that enhances smallholder productivity and income growth, and encourages domestic and international agribusiness investment.

The research component of the project will complete analysis of aquaculture and paddy profitability in the Delta, and initiate a new study of irrigated farming systems in the Dry Zone. First we will disseminate analysis of farm management practices, and productivity and profitability outcomes, for aquaculture, paddy and pulse farmers in the Yangon and Ayeyawaddy divisions. Surveys of up- and downstream value chain enterprises – including input supply, marketing and processing enterprises - will also be undertaken and analyzed. Second, we will undertake scoping, site selection and initial data collection for a multi-year study in the Central Dry Zone. The purpose will be to analyze the current and potential profitability of different cropping systems and value chains, making use of a range of irrigation sources. Findings will be used to inform the design of more effective agricultural investment strategies by government, donors and civil society.

The policy component will utilize project research outputs to engage closely with the new policy unit in the Department of Planning (DOP) of the Ministry of Agriculture Livestock and Irrigation (MOALI). The project will enable the DOP to advocate for and respond more effectively to requests for improved policies, strategies and investment plans. Policy engagement will be conducted in a way to encourage coordination among government ministries at Union and State/Region levels, as well as between government, private sector, donor and civil society stakeholders. The project will also engage with Yezin Agricultural University to support their commitment to be an effective provider of applied policy research.

The project will continue to collaborate with the Centre for Economic and Social Development, now independently registered with a new management board, and IFPRI. To increase the intensity of research and policy engagement the project will submit a proposal for supplementary resources to the LIFT fund. To enhance communication the FSPP in-country team plans to circulate a short monthly update in addition to standard quarterly reporting.

2. Project Accomplishments to Date

2.1 Aquaculture diagnostic and outreach

A detailed diagnostic of the aquaculture value chain in Myanmar was completed. The diagnostic was based on 250 in-depth interviews, geospatial analysis of fish pond area and growth, and analysis of production, trade and nationally representative consumption data. Findings were released as a policy brief and full length report, widely circulated, and garnered considerable interest and positive feedback. Findings were presented by CESD and MSU researchers to an audience of 54 partners representing development partners, private sector, civil society and government representatives, during a half day seminar held at the Sedona Hotel, Yangon. Findings from the research were also disseminated at several other events and policy workshops, and incorporated into a set of policy briefs released by the Myanmar Fisheries Partnership.

2.2 Mon State Rural Livelihood Survey and Rural Development Strategy

The Mon State Rural Household Survey dataset was analyzed and an in-depth report on rural livelihoods published. MDRI staff applied their knowledge on the use of STATA software gained through training provided in the previous FY to the analysis of household income sources by agro-ecological zone, and economic activities (including paddy, rubber, marine fisheries, non-farm income, migration and remittances). A subsequent round of qualitative research was conducted in Mon State during the final two weeks of March to validate survey results through focus groups. At the same time additional contextual data to complement the household survey data was acquired in support of the development of a Mon State Rural Development Strategy. Recommendations from the Rural Development Strategy were introduced to the Mon State Parliament and senior Mon State government officials during outreach activities conducted in May and June 2016. The Rural Development Strategy report, development strategy policy brief, and livelihoods survey report, were all finalized and disseminated by August.

2.3 Agricultural Strategy white paper and policy engagement.

Project staff participated actively in the preparation of an agricultural strategy white paper by an agricultural policy working group formed under the leadership of Tin Htut Oo, former head of the National Economic and Social Advisory Council (NESAC). The group included representatives of the Private Sector Development Project implemented by Nathan Associates with support from USAID and LIFT. Tom Reardon of Michigan State University provided technical support under a consulting contract with Nathan Associates.

The agricultural strategy white paper was completed in early April and disseminated to senior government officials prior to the visit of USAID Administrator Gale Smith. The agricultural strategy was disseminated to a broad range of stakeholders from government, private sector and society through two economic forums organized by Renaissance Institute and Nathan Associates in Yangon and Nay Pyi Taw with funding from USAID Burma. In addition to the formal presentations, meetings were held with senior ministry officials from the Ministries of Agriculture, Livestock and Irrigation, Industry and Commerce, Planning and Finance, and the Central Bank. Special briefings were also organized for State and Region cabinet representatives.

To build on the positive reception by government officials to the agricultural strategy white paper, IFPRI and MSU prepared a concept note for the development of a policy unit in the Department of Planning of the Ministry of Agriculture, Livestock and Irrigation (MOALI). The concept note was presented to the Minister by the USAID Burma Mission Director in July. The Minister subsequently approved the creation of the policy unit and the Department of Planning (DOP) is preparing a staffing plan.

3. FY17 Workplan Activities and Products

The workplan calls for implementation of two closely related sets of activities: 1) research and 2) policy analysis and engagement. The two sets of activities are planned and undertaken jointly. Research focuses on critical evidence gaps for improved public policies and investment plans, while policy analysis and engagement utilizes the results of research so that recommendations are grounded in current, local realities. Both sets of activities will:

- engage a broad range of stakeholders to share findings and recommendations, and ensure that policy recommendations reflect diverse perspectives;
- generate short-term (or quick turnaround) products as well as more-in-depth analysis; and
- build human and organizational capacity to enhance sustainability of project outcomes.

3.1 Research Activities and Products

Research activities focus on questions related to 1) aquaculture and paddy areas in Yangon and Ayeyawaddy, and 2) increased profitability of irrigation based crop production systems and value chains in the central dry zone (CDZ).

3.1.1 Aquaculture and paddy areas in Yangon and Ayeyarwady

The survey was designed to provide detailed 'benchmark' information on aquaculture and agriculture in the eastern part of the Delta. Data from 1100 households will permit analysis of farm size distribution, farm enterprise profitability, household incomes, farm productivity (yields of different crops), farming methods, access to and utilization of credit, tenure conditions under which land used for aquaculture & agriculture is accessed, employment generation (extent and characteristics), as well as labor migration to and from rural areas. Surveyed households are a representative sample of the population of 40 village tracts in 4 townships of Ayeyarwady (Maubin, Nyaungdon) and Yangon (Twantay, Kayan), including both farm and non-farm households. These 4 townships have the highest concentrations of aquaculture in Myanmar. Within these townships the 25 village tracts with highest densities of fish ponds were selected using GIS analysis. 15 village tracts with little or no aquaculture (mainly cultivating paddy and pulses) were selected from a list prepared with the support from township levels staff of the General Administrative Department. Two enumeration areas (EAs) were selected randomly from each village tract, from a list prepared by the census office (total 80 EAs). A census (listing) of the population all 80 EAs was conducted. 15 households were selected for interview from each EA, using this listing.

Research questions that the study sought to answer included:

- How much farm and non-farm employment is generated by aquaculture and agriculture, per unit area and investment?

- How big are the economic spillover effects generated by aquaculture and agriculture within the local rural economies where farms are located?
- What size are the returns and yields generated by aquaculture and paddy agriculture, per unit area and per household?
- What is the cost structure of aquaculture and paddy cultivation?
- Is there an inverse relationship between farm size and productivity (fish and paddy)?
- What is the size distribution of aquaculture and paddy farms?
- What are the characteristics, drivers, extent and patterns of change in use of agricultural machinery?

A number of research outputs are planned. These include a series of 'research briefs' (short summaries of key research results on areas of particular interest). The first briefs in the series will present findings on the topics of: agricultural mechanization; agricultural credit; labor migration; land tenure and markets; non-farm employment. These will be released in September 2016. Subsequent extended briefs in the series will cover topics including enterprise budgets and farm management for aquaculture and agriculture. These will be published in October-November. Survey data will also be used to develop a local economy wide impact evaluation (LEWIE) model in order to quantify the scale of spillovers associated with aquaculture and agriculture. These will be released in December 2016

In addition to research on farm segments of the aquaculture value chain, the project will conduct a 'semi-stacked' survey of non-farm enterprises in the farmed fish value chain. This will include hatcheries, rice and oil mills (major suppliers of feed), transport providers (boats, trucks, and buses), wholesalers, processors and retailers. The survey will seek to understand the structure of non-farm segments of the value chain in terms of the number and scale of operations, patterns of temporal change in enterprise numbers and their degree of concentration/fragmentation (spatially and in terms of ownership). The study will also address the conduct of enterprises in terms of characteristics of and change in: asset ownership; access to and utilization of inputs; technologies deployed; sales of products or services. Value chain performance will be assessed in terms of: the extent to which smaller actors are included in or marginalized from the chain; the efficiency with which they operate; the quality the goods and services they produce. Survey design and pre-testing will take place from September-November. Survey implementation will take place from November-January, and data analysis and write up will take place from December-March. Outputs will include a brief on each value chain segment, and a synthesis report drawing together results pertaining to the entire chain

3.1.2 Irrigation-based farming systems and value chains in the central dry zone

Research in the central dry zone (CDZ) of Myanmar will explore the potential to increase smallholder incomes and the efficiency and equity of the agro-food value chains to which they belong through increased productivity and diversification of farm enterprises under a variety of irrigation scenarios. The study will encompass all three pillars identified in the agricultural strategy white paper, and thereby support analysis and engagement on the policy agenda identified by the white paper. Unlike previous studies undertaken by the project, the intention is for this activity to be a multi-year study to measure and understand the causes of changes in smallholder productivity and profitability, or identify the constraints where those changes do not occur.

Activities to undertaken during the FY include:

1) Spatial characterization of farming systems in the CDZ
2) Identification of extent of access to irrigation from different sources
3) Scoping study to identify dominant and emerging value chains in different parts of the CDZ
4) Selection of geographic clusters (study sites) and commodities/value chains
5) Initial baseline household survey and value chain diagnostics in geographic clusters

Steps 1) to 3) will be implemented during the first quarter using a combination of a) review of past studies (e.g., JICA study of production systems in the dry zone), b) mapping of existing and proposed irrigation infrastructure, and c) interviews with township key informants. Steps 4) and 5) will be implemented in the second and third quarters, followed by baseline survey analysis in the final quarter.

Outputs will include three sets of research briefs - on existing farming systems, extent of access to irrigation and dominant and emerging value chains - and one research report on the baseline household survey. The baseline survey report will assess the current profitability of different household cropping systems with and without irrigation from different sources.

3.2 Policy Analysis and Engagement Activities and Products

The project will work closely with the new policy unit to be established in the Department of Planning of MOALI. The project will support implementation of MOALI's new agricultural policy, currently under preparation and expected to be closely aligned with the agricultural strategy white paper. There will be three policy work streams:

- Analysis of specific policies, strategies and public investments at subsector level to promote smallholder agricultural productivity and diversification;
- Preparation and dissemination of short, informational "best practice" policy briefs; and
- Response to policymaker requests for analysis and advice.

The project will also support coordination among union ministries, between union and regional level government, and across stakeholders (especially government and private sector).

3.2.1 Analysis of specific policies, strategies and public investments

The agricultural strategy white paper, and MOALI's forthcoming agricultural policy and strategy statement, set out an ambitious agenda of policy reform, strategy development, and public investment at the subsector level. Examples include agricultural research and extension, seed and breedstock, inputs for soil fertility and pest management, improved access to irrigation, improved access to finance and insurance products, contract farming, market access, food safety, and regional trade. Any one of these areas requires the development of more detailed strategies and investment plans to justify and deploy effective public goods and services.

The project will initially focus on analysis in support of productivity growth. The justification is a) there is a significant productivity gap between smallholders in Myanmar and other countries in the region that

could potentially be closed quickly and b) rising rural wage rates will quickly erode the profitability of farming unless productivity gains are achieved. Within the range of topics related to agricultural productivity the project will initially focus on two related topics: 1) irrigated farming strategy, with a geographical focus on the central dry zone, and 2) rice policy.

Irrigation is widely recognized as essential to increasing the productivity and profitability of farming systems in Myanmar, and especially the CDZ. In the absence of irrigation, farmers are limited to one crop a year (during the monsoon season), and even the one crop that can be grown is risky due to frequent dry spells. The Ministry of Agriculture, Livestock and Irrigation has announced its *policy* to re-allocate budgetary resources from dam construction to investments in water access infrastructure. Several donors are planning to implement major irrigation *projects*, including WB, ADB, JICA and AFD. But there is no overall irrigated farming strategy to address questions as to what locations, water sources, water management systems, farming systems, public services and private agribusiness investments, will be most effective in utilizing water resources to promote smallholder growth and competitiveness in domestic and regional markets. During the coming year the project will collaborate with the International Water Management Institute, as well as partner IFPRI, to pull together the necessary information and analysis to guide the subsequent development of an irrigated farming strategy, focused on the CDZ, in FY18. The project will work flexibly and in close collaboration with development partners, as well as the Korean Development Institute, to promote a "community of practice" through information sharing, identify information gaps, and avoid duplication of effort. The output of the first year will be an irrigated farming strategy white paper for broad discussion among all stakeholders.

Rice policy is closely related to irrigation strategy. Most lowland farming systems in Myanmar have rice-based cropping as a major production activity. Rice remains a politically sensitive crop due to the impact of productivity and prices on farm household incomes and consumer welfare, and the high share of rice in total value-added agribusiness activity (including trade). Policymakers remain skittish about removing all constraints to farmer choice of crop, especially in irrigated areas, and are nervous about allowing unrestricted trade in rice. The former MOAI developed a rice production strategy document, and the former MOC developed a national export strategy, but there is currently no overall rice sector policy statement. The project will work with the agricultural policy working group and the policy unit of the Department of Planning to craft a discussion paper to advocate for a rice policy that promotes a competitive sector, assuring access to consumers, while allowing all actors freedom of choice in production and marketing (including trade) decisions.

In support of the discussion paper, IFPRI will undertake a study of rice price and stock policy. Major changes in the Myanmar's rice economy have taken place in the last five years with the advent of large scale cross-border exports to China and major new private investments in milling and storage. This study will document these changes, as part of an analysis of price data of various types of rice, and data on quantities of production, exports and consumption. Using a relatively simple partial equilibrium model of the Myanmar rice market constructed for this work, the team will simulate the effects of changes in export prices and quantities, production shocks and government purchases or sales on production, consumption and trade. The study will also include a review of government interventions and stock policies in major Asian rice trading countries, along with a discussion of policy options for Myanmar government rice price and stock policy.

3.2.2 Preparation and dissemination of "best practice" policy briefs

Informed discussion of public policy is often hindered by a lack of clear definitions and objective information on regional and international experience with implementation of specific policies. The project will develop short, topical briefs to explain key terms and concepts (such as productivity, competitiveness, market failure) and provide examples of policies that have been successful (or not) in achieving welfare gains for different stakeholder groups. The project will aim to develop four policy briefs during the coming year. Topics will be determined according to issues raised by policymakers and/or parliamentary agricultural committees (see next workplan topic).

3.2.3 Response to policymaker requests to MOALI policy unit for analysis and advice

The project will work in close collaboration with the policy unit located in the Department of Planning to ensure "on call" response to specific questions from policy makers, including concerns raised by parliamentary agricultural committees. In most cases, policy unit and project staff will need to compile both local experience as well as international experience in relation to a topic. The level of resources required will vary greatly depending on the topic. For some questions a short policy memo on the issue will suffice. For others, consultation with stakeholders may be needed to gather information for the memo. Still others will require targeted research. An example of a request needing more in-depth assessment is advice on standard operating procedures for contract farming. For this type of request a joint team from MOALI PU and/or CESD and/or YAU will seek to conduct an inventory of contract farming arrangements in country as well as an assessment of performance through selected case study field visits. Where the findings are of interest to stakeholders, or instructive for future policy analysis, the results from this activity can be published as policy notes or reports.

3.3 Capacity Building

The primary approach to capacity building is through on-the-job skill building by participation of nationals in all aspects of research or policy analysis and engagement, supplemented by "in-house" seminars. This approach will be supplemented by more intensive skill building on specific tools. Two areas of specific skill building will be addressed in the proposed workplan: Cost-Benefit Analysis and the use of ArcGIS software.

Cost-Benefit Analysis is an essential tool for evaluating public investments and is a helpful conceptual framework for informing policy analysis as well. In response to a request from DOP a course on Cost Benefit Analysis will be taught by MSU Professor Eric Crawford for DOP staff, together with faculty from Yezin Agricultural University and Research Associates from the Centre for Economic and Social Development, in early December. Group exercises will encourage collaboration between staff of the three organizations on evidence-based policy analysis.

ArcGIS is a widely used software application for creating multi-layered maps of spatially referenced data. It allows analysts to "see" the relationship between variables such as market access and electricity access or to identify potential gaps in the cold chain for perishable products, or the relationship between irrigation access and production, or the relationship between available water and access to that water. Mapping software is also a very effective communication tool between analysts and

policymakers. As in the case of Cost Benefit Analysis, trainees will be drawn from collaborating organizations engaged in research and policy analysis.