



FEED THE FUTURE

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

Youth in Agriculture

Integrating Youth into Extension Systems in Central Malawi



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Acronyms

AAB	Agriculture as a Business
AEDC	Agricultural Extension Development Coordinator
AEDO	Agricultural Extension Development Officer
DAES	Department of Agricultural and Extension Services (Malawi)
EPA	Extension Planning Area
DADO	District Agricultural Development Officer
FAO	Food and Agricultural Organization
FBS	Farmer Business School
FISP	Farm Input Subsidy Program
ICTs	Information and Communication Technologies
ILO	International Labor Organization
MEAS	Modernizing Extension and Advisory Services
MYP	Malawi Young Pioneers
NGO	Non-government Organization
OECD	Organization of Economic and Cooperative Development
SANE	Strengthening Agricultural and Nutrition Extension
UN	United Nations
USAID	United States Agency for International Development
YFC	Young Farmers Club
YIA	Youth in Agriculture

Background and Justification

As food security and community development programming increasingly emphasize sustainability, the relational nature of agricultural extension reaching farmers in the exchange of knowledge, technology, and information has proven to be a viable and established method for reaching disadvantaged rural farmers. Extension systems strive to optimize both access and quality of services delivered to farmers. Historically, Malawi has struggled to offer both widely accessible and high quality services to small scale farmers. Gaps in services are especially prominent in 10 districts that Feed the Future has termed as the Zone of Influence (ZOI). Within the ZOI, farmers face acute shortages in extension advising, contributing to chronic food insecurity. The YIA project piloted in ZOI district Lilongwe East, a peri-urban area on the outskirts of Lilongwe. A 2016 Strengthening Agriculture Nutrition and Extension (SANE) Baseline Report found that less than 45% of farmers in the Lilongwe East district have received any extension advice from agents across all major categories of advising, i.e. agriculture, nutrition, and livestock. For young farmers, gaps in accessibility are even more prominent, as the district did not have any formal youth based extension programming as of 2016. Modern extension delivery services in Central Malawi currently face two primary barriers, namely, cost effective utilization of extension workers given significant budget constraints, and the establishment of effective feedback systems between local, national, and international extension bodies.



Figure 1. A YFC member presents his business plan to peers during their weekly meeting

Contributing to both these constraints are chronic absenteeism and high vacancy rates that affect nearly all districts. For young farmers in Malawi, namely those aged between 16 and 28, these issues are made more prominent by a lack of representation in community decision-making forums and a lack of extension programming supporting new farmers in developing entrepreneurship and agribusiness skills.

Since 2000, Malawi has worked to develop decentralized, participatory approaches and market driven models that prioritize the integration of small scale producers into value chains. As support for pluralistic extension has increased among farmers, so have the variety of services offered in Malawi's extension system, with farmers having increased access to educational resources on record keeping, postharvest loss, agribusiness principles, and value chain development. But anemic economic growth and political uncertainty have hampered progress and required extension stakeholders to reevaluate and innovate approaches in increasingly resourced strained systems. Separate rapid scoping missions of Malawi's extension system completed by Modernizing Extension and Advisory Services (MEAS) in 2012 and 2014 affirmed the country's current legislative framework in place to promote pluralistic extension but commented on many significant barriers facing both farmers and extension workers in creating a demand-driven extension system. The most prominent challenge was found to be the sheer lack of local extension workers with respect to the number of farmers, with each local worker being responsible for an average of 2000-3000 households depending on area staffing levels. Budget constraints caused further issue for the DAESS committee structure, with many local committees lacking the funding for training, meetings, and general implementation of proposed programs. Finally, a lack of crop diversity, driven by farmers' confidence in maize crops for food security, contributes to further market insecurity and dependency on maize markets.

Within each national district, there are several Extension Planning Areas (EPAs), each averaging 8-20 AEDOs tasked with another subset of households within the EPA to serve. Existing extension in Nyanja and Chitsime is primarily delivered by approximately 30 local extension workers (AEDOs), who are responsible for general advising but also implementation of government programs such as the Farm Input Subsidy Program (FISP). Similar to many other districts in Malawi, Lilongwe East has significant vacancy rates (an average of 25% for Nyanja and Chitsime EPAs) which prevent extension services from being delivered at full capacity. In addition, significant logistical constraints related to long distance transportation often limit extension workers to only visiting their sections 2-4 times per month versus 5-6 days per week for extension workers who live in the communities they work in. Several international NGOs (e.g. UNDP, IITA, IFPRI) also work in the area providing extension services in various capacities.

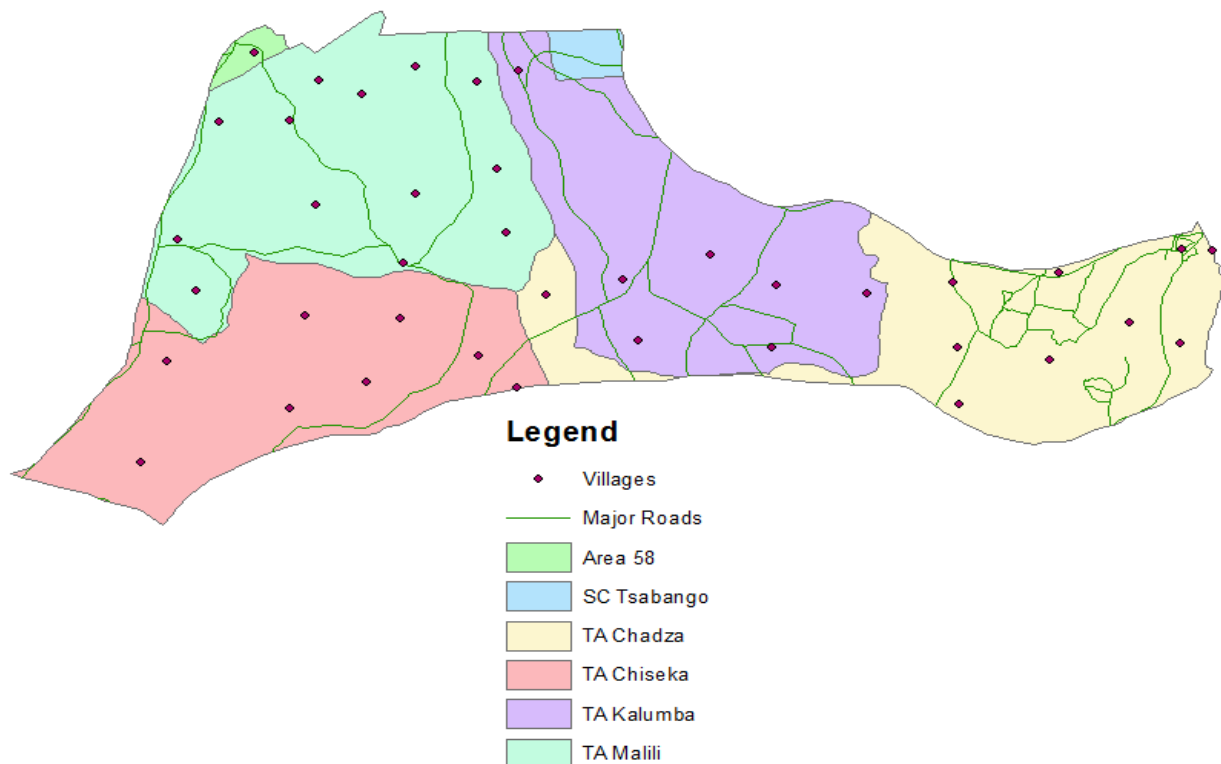
In response to the MEAS scoping missions, the SANE project was created as a partnering project to DAES to improve the state of existing extension delivery systems. The SANE project, responding to efforts of DAES to increase agribusiness and entrepreneurship capacity amongst the next generation of farmers, began collaborating in conjunction with DAES to pilot a program with the intent of forming Young Farmers Clubs (YFCs) and offering agribusiness training to area extension workers in the Nyanja and Chitsime sections of the Lilongwe East district (maps found on the following page in the Actors, Location, and Timeline section.) The Malawi Youth in Agriculture (YIA) project was created by the Strengthening Agriculture Nutrition and Extension (SANE) activity to address the broader concerns of the MEAS Malawi assessment, as well as the programmatic goals of DAES. The project sought to improve the access and quality of services available to young farmers, increase the viability of the YFCs, and engage youth in demand-driven extension processes. YIA was a 6-month pilot project under SANE in the Chitsime and Nyanja areas of the Lilongwe East District, a region within the Feed the Future Zone of Influence.

The YIA project targeted two Extension Planning Areas in Central Malawi outside of Malawi. Chitsime and Nyanja EPAs are two areas of several that make up the Lilongwe district of Central Malawi. The maps below display the districts with color delineations for the traditional authorities overseeing a given area (full-sized maps can be seen below in the Appendix IX.) The area is generally considered peri-urban with reasonable market access via the greater Lilongwe area, however some villages are much further removed due to poor road infrastructure, mountainous terrain, and heavy rainfall in certain months. The area's planting season, which begins in December and ends in May, is when most crops are grown, normally maize, groundnut, and soya. Given a lack of commercial and service industry, the clear majority of residents in these areas are engaged in agricultural work in some capacity.



Malawi's primary extension body is DAES, which oversees the delivery of government supported extension services and coordinates with non-profit and private sector actors at national, district, and local levels. Extension demand and feedback in Malawi begins at the village level in Village Development Committees or Village Agricultural Committees, both of which provide venues for farmers and local extension workers to voice community needs. Priority areas identified at this level are then further discussed at Area Stakeholder Panels and Area Development Committees, both of which exist at the EPA level. Feedback is then transferred to the District Council as well as the District Agricultural Committee who will communicate laterally with the District Agricultural Development Officer. Feedback is then further evaluated by the Ministry of Agriculture, the Ministry of Local Government, or the Malawi Forum for Agriculture Advisory Services (MaFAAS). At any given geographical level, demands can be met by the relevant decision making body, however, feedback delivery between villages and national level ministries has proven to be a common area for communication breakdowns where feedback and knowledge transfers are often time consuming and/or administratively burdensome.

Chitsime Extension Planning Area



The YIA project piloted by SANE worked in conjunction with DAES to implement a series of agribusiness workshops with the intent of building agribusiness capacity among AEDOs and young farmers while further integrating youth into Malawi's extension feedback systems. By partnering with DAES and the district Agribusiness Officer, SANE was able to build on the experience and learning of extension officers

already embedded within the community. The SANE YIA pilot project was funded from May 2016 until December 2016.

Purpose and Objectives

The primary goal of the YIA project was to improve access to and quality of extension available to youth in the Lilongwe East District through agribusiness training and the establishment of YFCs that would facilitate increased trust, communication, and collaboration between young farmers. By improving agribusiness knowledge and integrating youth into extension platforms, sustainable extension services would become more readily available while driving overall improvements in rural livelihoods. The YIA project strongly emphasized participatory extension principles and entrepreneurship as means of increasing productivity amongst young farmers. Utilizing field level extension workers as a means of optimizing the quantity of youth engaged in face-to-face learning, weekly workshops were held for area extension workers that served to provide space for workers to reflect on the last week's interactions with youth, discuss methods for improving delivery of services, and learn a new component of agribusiness and entrepreneurship with the intent of transferring this information to youth in a similar workshop structure at weekly YFC meetings. The specific objectives of the YIA project were to:

- 1) Increase agribusiness knowledge and entrepreneurial skill among young farmers;
- 2) Form Young Farmers Clubs led by youth to facilitate knowledge sharing, collaboration in agribusiness, and increased formal participation in local extension systems;
- 3) Create sustainable linkages between Young Farmers Clubs and Area Stakeholder Panels to allow young farmers greater voice and decisive power in ASP meetings and the development of extension programming in Nyanja and Chitsime EPAs;
- 4) Document lessons learned, successes, and challenges in establishing youth clubs and agribusiness programming to inform future best practices in decentralized public extension for SANE project, community members, and relevant stakeholders.

Activities and Approaches

The implementation of the YIA project involved the following stages:

- 1) Identify community strengths, weaknesses, and priority areas in serving youth;
- 2) Develop and integrate existing agribusiness curriculum with participatory approaches to empower both young leaders and participants;
- 3) Provide capacity-building extension workshops to AEDOs;
- 4) Provide backstopping to AEDOs transferring workshop knowledge via YFCs;
- 5) Monitor, evaluate, reflect, learn, and grow from learning tools;
- 6) Evaluate changes in knowledge as a result of workshop training;
- 7) Share best practices, advice, and encouragement with stakeholders and SANE project.

Stage 1: Identify community strengths, weaknesses, and priority areas in serving youth

The goal for this stage was to assess the existing human resources and programmatic assets of the current extension infrastructure while coordinating with community members and leaders to create a development agenda to promote participatory approaches in program design. At the national and district level, early meetings with the DAES office allowed the YIA project to evaluate Malawi's current agribusiness infrastructure, programming, and content as well as discuss the most appropriate districts to implement a pilot program. These meetings also served to establish an agribusiness officer as a community counterpart to the YIA research assistant to better promote collaboration and communication among project partners and communities. Evaluating community level needs began with attending each area's Area Stakeholder Panel (ASP) meetings to better understand current processes and dynamics for extension delivery in each area. ASPs serve as the community level platform for extension stakeholders to plan and evaluate local extension needs. Several members of each ASP committee were then interviewed to better understand each individual's role in context of the broader committee as well as to understand perspectives of different community leaders. As these interviews took place, village chiefs and other political leaders (Traditional Authorities), were also met to discuss their broader visions for community development and flourishing, especially in the context of youth. In addition to political leaders, general community leaders were interviewed as well, especially those that often worked closely with youth (i.e. teachers).

To better understand the daily tasks and challenges of extension workers, several days were spent shadowing area extension workers in their sections and meetings with farmers, as well as making field visits to villages implementing similar agricultural initiatives through the Peace Corps. From the beginning, village youth were interviewed informally and semi-formally to identify general trends in vocational goals, employment, and roles in their communities. With this foundation of community context and permission from Traditional Authorities to begin programming, the YIA project began program design primarily through biweekly meetings with each section's extension workers as well as their supervisor, the Area Extension Development Coordinator. Over time these meetings allowed extension workers to clearly articulate their community's extension strengths, resource needs, and current approaches to reaching young farmers, thus allowing programming to build on current effective practices while addressing relevant needs.



Figure II. A Young Farmer Displays His Growing Tree Seedling Business in Nyanja EPA

These procedures allowed the project objectives to align with strategic plans of community leadership, while also promoting a decentralized model through relationships and interactions with the ASPs. The participatory approach was essential throughout each stage of the project in enabling trust amongst actors, building relational capital and promoting sustainable interactions, meetings, and goals. During area extension worker meetings, AEDOs were able to corporately discuss goals by need level and the potential barriers that may be met in practice. The highest priority areas identified by area extension workers were:

- 1) Establishing new YFCs while revitalizing existing clubs
- 2) Though DAES documented dozens of youth clubs throughout the Lilongwe East district, many of these clubs were inactive or non-existent. Within the Nyanja and Chitsime EPAs, only 3 youth clubs were active versus 30 clubs that would have been present had each extension worker maintained one club. Even amongst the few clubs that did exist, group dynamics were challenged by members that were no longer the age of most youth, often older men with families and significantly more authority than an average youth in their community. An overview of clubs can be found in Appendix I, and a more detailed demographic analysis of sampled clubs in Appendix X.
- 3) Guidelines for forming new clubs were established in each EPA, where AEDOs discussed visions for the purpose of the clubs, and practical logistics that would help make clubs successful such as age limitations, documentation of attendance, planned activities, and leadership structures. Interested youth were then gathered in their respective communities, where in the initial weeks AEDOs facilitated the formation of a club vision statement and election of leaders within each group. To meet the requirements for the transportation stipend, AEDOs were also responsible for taking weekly attendance via a youth sign in sheet, which they would be allowed to keep to record attendance rates. A full overview of workshop content can be found in Appendix II.
- 4) Increasing AEDO technical knowledge of agribusiness topics and group leadership dynamics. Prior to the YIA project, AEDOs and the area EPA AEDC would meet biweekly to discuss general programming logistics, as well as take time for continued professional development, often in the form of a lesson on a certain topic: nutrition, horticulture, etc. In practice, this continued professional development portion of their meetings was often not implemented because of time constraints or other logistical difficulties. Because of this, many AEDOs were eager for the opportunity to continue their professional learning and development in an intentional and structured manner, especially agribusiness in light of its near universal utility amongst farmers, and its unique empowering ability among youth who lack economic power.

Stage 2: Develop and integrate existing agribusiness curriculum with participatory approaches to empower both young leaders and participants

To build on existing resources already being implemented by DAES, YIA partnered with district and national level agribusiness officers within the ministry to identify strategies for teaching content in a more manageable frequency than what currently existed (weekly 2 hour meetings vs. 5 back-to-back full day meetings). The existing curriculum, Farmer Business School (FBS), was developed by the Food and

Agricultural Organization (FAO) in partnership with the Malawian government. The FBS contains several agribusiness teaching modules design to be facilitated by an experienced agribusiness officer or extension worker. The curriculum encourages farmers to collaborate as a group, with beginning sessions devoted to group formation, establishing leadership, etc. The FBS curriculum has been used for several years throughout Malawi, however financial constraints often mean that in any given area only 5-15% of AEDOs may be trained in the curriculum.

To attempt developing a more cost-effective model of facilitation and integrate further guidance in the facilitation and promotion of participatory practices in YFCs, FBS was adapted with several principles from Agriculture as a Business (AAB), a curriculum designed by Engineers Without Borders (EWB) Canada for use in Sub-Saharan African and tested in Ghana. The augmentation with AAB allowed for the introduction of further lessons on group dynamics, discussion facilitation, and further programmatic time allocated for AEDOs to reflect on current lessons learned. The AAB curriculum also incorporated a robust set of non-formal participation components throughout the workshops that allowed everyone to bring their own experience, training, and knowledge to discussions where the role of transferring knowledge was between each extension worker while the workshop leader now facilitated these talks. Small group discussion questions, problem solving exercises, and vision building allowed the diverse array of strengths and skills of each extension worker to be displayed during the workshop. The final resulting curriculum contained 10 trainings and corresponding group activities, one for each week of programming on a range of agribusiness topics, but designed to be comprehensive and holistic in nature. The final topics taught in training included:

- 1) Group Dynamics and Forming the Mission Statement
- 2) Enterprise Development
- 3) Value Addition
- 4) Principles of Market Research
- 5) Organizational Structure for Entrepreneurs
- 6) SWOT Analysis
- 7) Gross Margin and Breakeven Analysis
- 8) Basic Record Keeping
- 9) Marketing
- 10) Finalizing Business Plans

Stage 3: Provide capacity building extension workshops to AEDOs

YIA's activities were designed to build long term capacity and prioritize knowledge and implementation gaps given by AEDOs, namely agribusiness entrepreneurship, small business development, and identifying opportunities in markets. By emphasizing these topics AEDOs can sustainably support and transfer information to farmers far beyond the lifecycle of the project. One core example of movement towards sustainable training was the weekly meeting model which allows AEDOs to have more opportunities to collaborate and learn together versus a traditional isolated training model.

Workshops were held at the Nthenje Resource Training Center (NRTC), a small campus of classrooms outside of Lilongwe funded by the Ministry of Agriculture to facilitate training and learning activities proximally to the field. The NRTC was selected as the venue was close to both EPAs, could be used free of charge, and was located adjacent to a major highway making accessibility significantly easier than individual EPA offices where access requires private transportation. Workshops were held on a weekly basis, often on the same day of each week, though flexibility was often necessary in the case of area-wide programming that had been scheduled before the YIA project began. Since field-level programming is carried out by AEDOs, they were the primary attendees of the trainings, though their supervisors would also attend if modules were relevant to their work. On average, each workshop had 23 participants, out of 30 total AEDOs. Attendance rates remained relatively constant throughout the duration of the training, with a small decrease in the final weeks as planting season increased time constraints.

Figure III. The Chitsime AEDC Opens a YFC Gathering with Area Youth



Since some AEDOs had prior experience with agribusiness through training or on-job experience, the measurement of baseline knowledge of all AEDOs proved to be a helpful tool in identifying knowledge gaps, while also allowing for more tailored lessons that could still stimulate AEDOs with prior training. Because the sessions were co-facilitated by the district Agribusiness officer, FBS content could be presented in context, with relevant stories, anecdotes, and examples for the extension workers. In addition to this, the presence and weekly contact with district level specialists served as an encouraging motivation for many workers with regards to the responsiveness of extension feedback loops.

Outside of the facilitators, the primary agent of sharing knowledge with AEDOs was their own colleagues. The augmented FBS was designed to leave significant portions of programmatic time allocated to robust discussions between extension workers via the peer-to-peer learning model. At the beginning of each workshop, AEDOs took time to write and brainstorm through a few pre-written open ended response questions that allowed them to explore their teaching, classroom setting, comfortability with content etc. both as an individual and as a group. This allowed learning rates to increase as AEDOs became more comfortable dialoguing together, demonstrating a viable model for a sustainable, low cost, semi-formal peer-to-peer knowledge-sharing network among area extension workers.

Stage 4: Provide backstopping to AEDOs transferring workshop knowledge via YFCs

AEDOs participating in the workshop were required to transfer their knowledge to the young farmers in their communities by meeting weekly with their YFCs to teach the content in a similar format as they learned during the workshop. The regular transmission of this information increased the frequency and quality of extension services offered to youth while contributing to long term growth in DAES institutional knowledge as extension agents will be able to continue to transfer this knowledge in future program replications.

With each workshop taking place early in the week, facilitators devoted the following several days to supporting extension workers by visiting, observing, and offering encouragement to youth clubs to affirm their time commitments and hard work. Club visits fostered a sense of mutual commitment between district- and project-level workers and their area extension counterparts. Brief, informal evaluations after the club meeting served to provide encouragement, feedback on club dynamics, as well as a positive source of accountability.

Figure IV. Youth Visit and Participate in Nutrition Field Day in Nyanja EPA



After several weeks of programming, coordination with AEDCs and AEDOs began to help establish youth presence in Area Stakeholder Panels (ASPs). Integrating youth into ASPs was a key step in increasing youth's formal access and representation in local extension forums. Once represented in ASP panels, youth clubs could regularly update extension actors on activity, discuss potential resource needs for future programming, and increase the visibility of young farmers within a community. When deciding youth representation structures within the ASP, each EPA was allowed their own criteria for selecting the youth they wished to represent the YFCs of their EPA, as well as the responsibility to coordinate with the panel how many youth would be allowed to be present at the meetings.

Finally, several AEDOs and their youth club presidents had the opportunity to visit a national level agricultural commodities exchange commission for a day of learning organized by the YIA team. The commodities exchange visit provided a wealth of advice in the process of mobilizing small-scale holder farmers to engage with commodities exchanges in order to negotiate higher prices for crops. AEDOs

reported feeling significantly more confident in their ability to link their own farmers to formal markets while youth universally felt empowered and encouraged at the viability and efficiency of using exchange markets for their clubs in the future.

Stage 5: Monitor, evaluate, reflect, learn, and grow from learning tools

With the primary goal of improving access and quality of services delivered while measuring changes in knowledge and attitudes surrounding agribusiness, the YIA project utilized a variety of monitoring and evaluation methods to assess and implement programming. Key tools for evaluation and learning were:

- 1) Key informant interviews with community workers, extension workers, local authorities, and government officials;
- 2) AEDO Baseline Knowledge Surveys;
- 3) Youth Baseline Knowledge and Attitude Surveys;
- 4) AEDO Endline Knowledge Surveys;
- 5) Youth Endline Knowledge and Attitude Surveys;
- 6) Weekly qualitative feedback via AEDO reflection forms;
- 7) Field visits to active youth clubs;
- 8) Weekly attendance sheets collected by AEDOs to evaluate involvement and access;
- 9) Update and feedback reports with district level extension officials.

As a project, YIA was committed to the use of monitoring and evaluation not only for impact assessment and accountability, but also for Adaptive Management and to inform strategic decision-making and programmatic adaptations throughout the life of the project. Key informant interviews through the duration of the project not only continued adding to general learning, but also served as critical reflection points where both facilitators and extension workers could evaluate current progress and reevaluate the optimal way forward. Baseline knowledge surveys given to youth and extension workers served as a baseline marker of the relative scale and scope of knowledge each respective group had with regards to agribusiness. The extended youth survey allowed us to further explore social and personal attitudes towards agribusiness as livelihood as it is perceived among youth. These same knowledge and attitudes questions were again assessed for youth at the end of the project to attempt to identify causal relationships between agribusiness training and increases in agribusiness knowledge and entrepreneurial skill. During workshops, AEDOs were asked to complete weekly reflection forms consisting of 5-7 broad questions about their experience in facilitating the content with their youth in the previous week. Since the completion of these forms was required for compliance in receiving their fuel allowance, participation rates neared 100%. Finally, biweekly meetings with district level agricultural representatives allowed for frequent communication of program progress, updates, and potential future challenges, and in turn gave qualitative context to further contextualize data collection.

Stage 6: Evaluate changes resulting from workshop training

Impact evaluation was assessed via both the AEDO and youth baseline and endline surveys, with each respective survey constructed to reflect predetermined indicators centering around measuring knowledge attitudes, with several questions also devoted to youth time usage and current employment activity. To increase the strength of internal validity, both youth who would and who would not be receiving training from AEDOs were included in the knowledge measurement to create an additional comparison group. Baseline survey data was collected prior to the beginning of the workshops and their corresponding club's activity. Following the implementation of the workshops, many of the same youth (regardless of their participation status) were again visited to measure endline knowledge, so that the test results and relative knowledge changes of both club participants and nonparticipants could be compared over time. Additional key informant interviews, AEDO meetings, and resources added additional qualitative data to contribute to overall project related implementation.

Stage 7: Share best practices, advice, and encouragement with stakeholders and SANE project

To promote knowledge sharing and collaboration among extension actors, the YIA project concluded the project by debriefing SANE staff, district level extension agents, and EPA level AEDCs with successes, lessons learned, and future areas for programming. Youth who successfully created business plans were celebrated at EPA ceremonies presented by the workshop facilitators, traditional authorities, and their AEDOs. In the coming months, the project and its findings will continue to be presented with DAES and other in-country stakeholders throughout the Feed the Future Zone of Influence to explore potential for scaling, further piloting, and incorporation in other areas' District Strengthening Action Plans. Further analysis of the challenges and opportunities of the programming will be discussed in a SANE project technical note. The findings were presented at the annual Association for International Agricultural and Extension conference, and will continue to be disseminated in other research forums. By presenting findings, lessons learned, and recommendations for future programming, our results will be shared with the broader global extension professional and stakeholder community.

Measurable Outputs, Results, and Impact

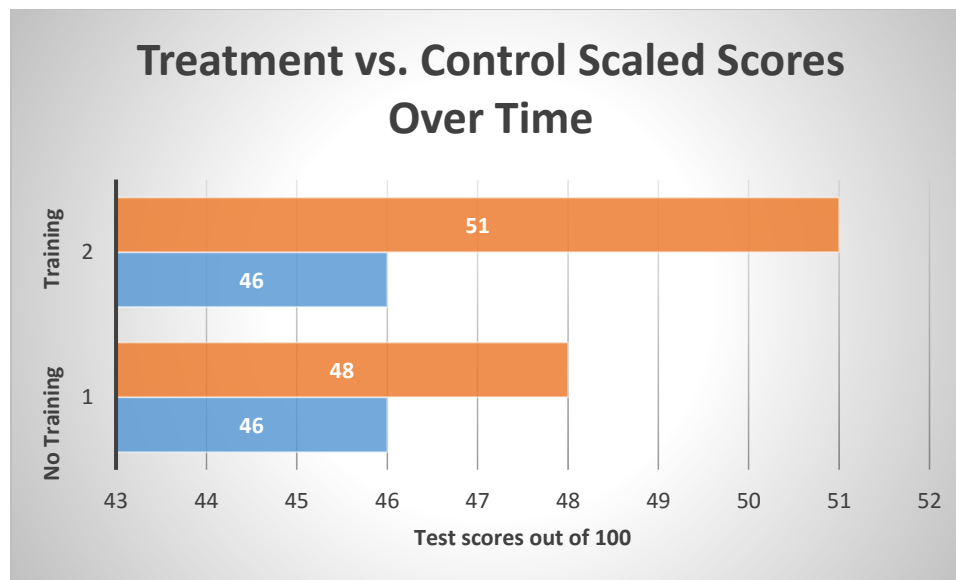
The subsections below detail the indicators and outputs target in each of the four goals listed earlier in the purposes and objectives portion.

Objective 1: Increase agribusiness knowledge and entrepreneurial skill among young farmers.

Measurable Outputs	Indicators	Results	Data Source
1) Increase in youth agribusiness knowledge	1.1) Youth endline agribusiness knowledge exam scores	1.1) 10% increase in youth knowledge exam scores	Survey Data
2) Increase in youth entrepreneurial propensity	2.1) Youth risk tolerance score 2.2) Youth desire to engage in agricultural employment 2.3) Youth desire to pursue agriculture on inherited land 2.4) Youth desire to engage in an agribusiness	2.1) 2% increase in risk tolerance 2.2) 1.5% increase in desire to engage in agricultural employment 2.3) 8% increase in desire to pursue agriculture on inherited land 2.4) No change in youth desire to start an agribusiness	Survey Data
3) Increases in AEDO Agribusiness Knowledge	3.1) AEDO endline agribusiness knowledge scores	3.1) AEDO knowledge scores increased by 14%	Survey Data
4) Increased AEDO workshop attendance rates	4.1) AEDO workshop attendance rates	4.1) No increase in AEDO workshop attendance rates relative to biweekly administrative meetings	Project Documents
5) Universal completion of AEDO reflection forms for workshop attendees	5.1) AEDO Reflection form completion rate	5.1) 100% completion of AEDO reflection form among AEDOs who attended workshops	Project Documents

Output 1.1.1

In the baseline analysis, 564 youth were surveyed on their agribusiness knowledge based on an assessment of 25 equally weighted questions surrounding principles of profit, loss, record keeping, and other related topics. Their average score on the knowledge portion (out of 100 points possible) was 46 overall. Upon completing the workshops, participant's scores increased 11% to an average of 51. For those who did not complete training, average scores rose from 46 to 48. While the average gain was modest, it was statistically significant at the 5% level and notable progress was seen amongst the highest decile of those who completed the workshop, with a proportional increase of 153% of participants who scored above 70 overall, relative to the baseline.



Agribusiness knowledge survey of 564 youths

Output 1.2.1

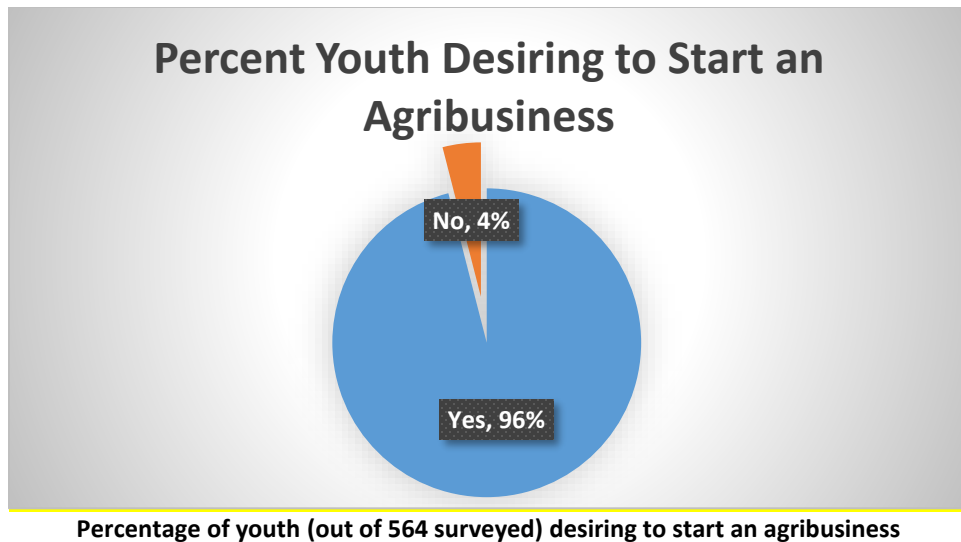
Youth were also asked several questions regarding their attitudes towards risk. These 5 questions were then scaled to a risk score of 1 to 7, with 1 being the most risk averse. Risk preferences are an important component of understanding how youth view entrepreneurial opportunities in their communities and help add context to potential unseen barriers in market entry. During the baseline survey, the average youth risk propensity was 2.77, with only a small proportion of any youth scoring above 5. After the workshops were completed, youth participants risk propensity did not change in a statistically significant manner. Scores below 3 indicate a mild risk aversion among youth that should be further explored in terms of comparison to non-youth farmers, as well as causal factors of entrepreneurship that inclined youth towards risk aversion.

Output 1.2.2

To measure desire to be employed in the agricultural sectors, youth were asked to rate their desire to remain in their current community (or a nearby rural community) on a scale of 1 to 5, with 5 being a very strong preference to stay. At the baseline, surveyed youth rated their desire to stay in their communities as 3.80, with workshop participants not showing any significant changes in the score. Semi-structured interviews indicated that family and broader networks were often a strong incentive to remain in communities, perhaps limiting the effect size of changes in attitudes based on potential income earned from agribusiness activity.

Output 1.2.3

Results were slightly more prominent for youth who believed they were going to inherit farm land from their families. When these youth were asked, using a similar scale, to what extent they wish to pursue agriculture on that land, the average was 3.63. This fell 6% to 3.42 for youth that completed the workshops, significant at the 5% level.

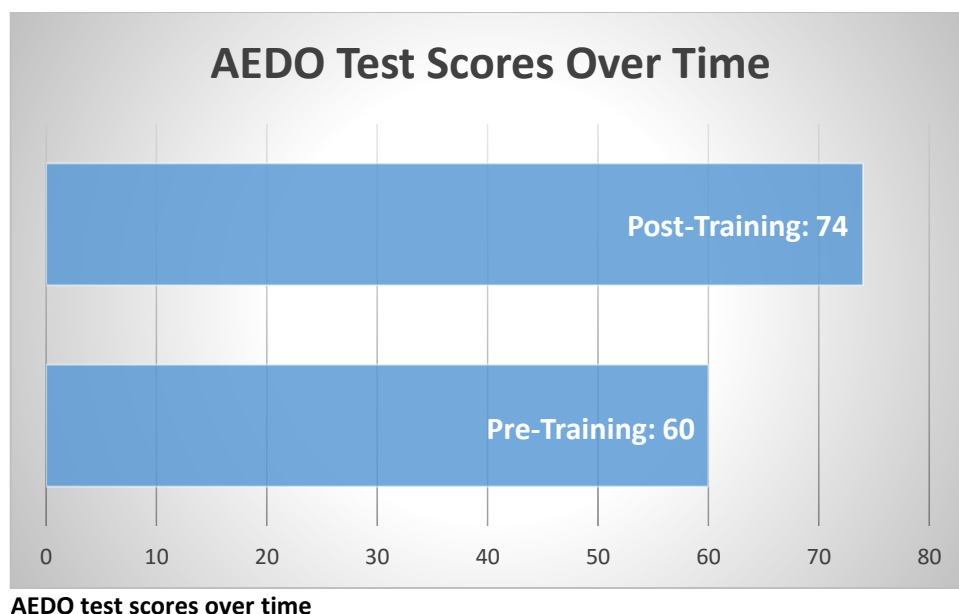


Output 1.2.4

When youth were asked at the baseline if they wanted to start an agribusiness at some point in the future, the overwhelming majority said yes (~96%). Because of a likely ceiling effect, this number was essentially unchanged at the endline survey.

Output 1.3.1

At the baseline survey, the 30 AEDOs surveyed on average scored 60 out of the 100 available points. Upon completion of the workshops this average rose 23% to 74 though only 22 of the original 30 could be reached. The differential between the AEDOs baseline and endline score varied significantly from extension worker to extension worker. In general, those with attendance rates above 70% saw the largest gains.



AEDO test scores over time

Output 1.4.1

Over the duration of the workshops, average AEDO attendance consistently stayed at 76% and ranged from 68-91%, with attendance rates falling in the later weeks as obligations surrounding the planting season increased. Ensuring consistently high attendance rates will require significant coordination around seasonal variations in AEDO timelines and roles within their respective communities.

Output 1.5.1

Of AEDOs who attended the workshops, completion of reflection forms was universal throughout the duration of this course. This is likely in part due to the necessity of report completion in order to receive the transport allowance, indicating that completion requirements tied to allowances may be an effective means of improving monitoring and evaluation.

Objective 2: Form Young Farmers Clubs led by youth to facilitate knowledge sharing, collaboration in agribusiness, and increase formal participation in local extension systems.

Measurable Outputs	Indicators	Results	Data Source
1) Increase number of existing and functional YFCs	1.1) Number of active YFCs	1.1) 37 new clubs created, two revitalized	Project Documents
2) Increase the number of YFCs with youth in leadership positions	2.1) Number of YFCs with youth in leadership positions	2.1) 39 clubs established youth in leadership positions	Project Documents
3) Increase number of youth active in YFCs	3.1) Number of youth participating in YFCs	3.1) 903 new youth joined YFCs	Project Documents
4) Increase proportion of AEDOs with active YFCs	4.1) Number of AEDOs with active YFCs	4.1) 19 AEDOs began facilitating new YFCs	Project Documents

Output 2.1.1

Before the beginning of the YIA workshops, only 3 AEDOs out of the 30 surveyed reported to have YFCs, and even amongst these only one met frequently (i.e. more than once every several months). With 39 clubs meeting on a weekly or biweekly basis at the completion of the project, youth in Nyanja and Chitsime are substantially more organized in learning, discussing, and developing agribusiness. Each AEDO generally had 1-2 clubs to cover their EPA section, with each club being formed through an iterative process of identifying individual community needs, assessing logistic feasibility, and developing a strategy and vision plan to help focus and motivate youth.

Output 2.2.1

Of the pre-existing clubs, no club maintained any formal office positions, often with the oldest or most experienced farmer assuming the role of de-facto leader outside of the extension worker. The YIA's modules and lessons on Group Dynamics gave practical advice on recommended leaderships structures and positions that would allow youth to develop leadership skills while maintaining a participatory, democratic environment. Thus, 100% of new clubs adopted formal leadership positions during the project, with the most common being: President, Vice President, Secretary, and Treasurer. Some clubs

selected additional positions based on a group emphasis, i.e. a Microfinance Chair if the group intended on acquiring microfinance in the future.

Output 2.3.1

At the inception of the YIA project, YFCs were completely unrepresented by youth in any formal capacity amongst local extension bodies. Formalizing and linking clubs to community-level extension providers and corresponding feedback loops was a critical step in establishing practices that will sustain the life of clubs beyond the lifespan of the project. By the close of the project, youth representatives selected by their corresponding area's AEDOs were attending biweekly ASP meetings to voice club initiatives and request necessary resources on behalf of all clubs.

Output 2.4.1

As stated above, initially, no youth representatives were present within Nyanja and Chitsime EPA's ASP meetings. By the end of programming, all 39 clubs were represented by a total of 5 youth nominated by their AEDOs to represent the interests of their given EPA's clubs.

Objective 3: Create sustainable linkages between Young Farmers Clubs and Area Stakeholder Panels for greater support of youth extension programming in Chitsime and Nyanja EPAs.

Measurable Outputs	Indicators	Results	Data Source
1) Increase the number of youth representatives present at ASP meetings	1.1) Number of youth participating at ASP meetings	1.1) 5 youth club representatives (3 from Chitsime, 2 from Nyanja) now represent area YFCs which previously had no representation	AEDC Meeting, Field Notes

Output 3.1.1

In total, 5 YFC leaders were selected to represent area clubs at ASP meetings. Given the diversity of needs among the 39 clubs and non-existence of any pre-existing YFC representation at ASP meetings, both EPAs strongly advocated for multiple representatives instead of one so that the position would not be over-burdensome and would allow more leaders to collaborate and understand the variance in needs from club to club. While this sample is small, further research could continue exploring potential gender gaps in leadership roles amongst youth in rural communities in Malawi.

Objective 4: Document lessons learned, successes, and challenges in establishing youth clubs and agribusiness programming to inform future best practices in decentralized public extension for SANE project, community members, and relevant stakeholders.

Measurable Outputs	Indicators	Results	Data Source
1) Monitoring and evaluation of knowledge, skill, and attitudinal changes among youth	1.1) Completion of Baseline and Endline Knowledge survey of youth	1.1) Baseline and endline survey completed with 564 and 498 observations respectively.	Survey Data
2) Monitoring and evaluation of knowledge changes among AEDOs	2.1) Completion of Baseline and Endline Knowledge survey of AEDOs	2.1) Baseline knowledge survey of AEDOs completed with 28 and 22 observations respectively.	Survey Data
3) Strengthened understanding of best practices in supporting public extension in a decentralized context	3.1) Number of best practice events, publications, or output pieces	3.1) Technical Reports for stakeholders Journal Articles Conference Presentations	Project Documents

Output 4.1.1

The youth baseline survey took place during September 2016, lasting approximately two weeks where 564 youth were interviewed by a team of 7 enumerators. Surveys were approximately 75 questions long, containing questions pertaining to demographics, current employment and agribusiness activity, expected wages, as well as an agribusiness knowledge measurement portion.

The endline survey took place over two weeks ending in December 2016, with a total of 498 youth interviewed. The endline survey was largely identical to the baseline survey, however it included several additional questions surrounding the delivery of extension services, i.e. how often did your youth club meet, etc.

Output 4.2.1

To compare initial knowledge differentials as well identify agribusiness knowledge gaps, each AEDO attending the training workshops completed a baseline knowledge exam that mirrored the one given to youth. 28 AEDOs completed the exam with generally similar scores, with the highest being 8/10. After the workshops had been implemented, participants took the knowledge exam a second time to measure changes in knowledge over time from the workshops. Due to absence and logistical difficulties, 22 of the original 28 AEDOs were surveyed in the endline survey.

Output 4.3.

At the completion of the workshops, district level extension directors and coordinators were given final updates and project debriefings. In addition, at the national level, the successes of the YIA program were reported in the SANE project's annual report. Lessons learned from the YIA project will continue to be presented to other regional extension actors, particularly those engaging small-scale farmers in agribusiness development, via the Final Report and SANE knowledge sharing activities. Upon further analysis of results, the lessons learned from the YIA project will be presented at subsequent research conferences.

Conclusion

By December 2016, the SANE YIA project was able to achieve success in the four goals set at the project's inception. At the community level, nearly 1000 young farmers were able to form and participate in local YFCs, receiving 10 weeks of intensive agribusiness training from their extension workers, as well as being engaged in their broader community extension system through increased participation in local stakeholder panels, with a total of 5 youth club members acting as representatives for 39 clubs in their respective EPAs.

Figure V. Nyanja EPA YFC, AEDO: Mercy Kazembe



Lessons and activities in group formation helped facilitate the process of establishing club goals, vision, and leadership so that YFCs are mobilized to engage in markets or related endeavors established by the club. Incorporation of club representatives into local stakeholder meetings has allowed youth greater voice in their communities as a group, as well as a venue for YFCs to better receive extension messages and articulate their own service needs and demands.

At the district level, 28 extension workers in two EPAs were trained in the FBS agribusiness curriculum augmented with participatory extension principles by facilitators from the district agribusiness office as well as the YIA project. Nearly all AEDOs demonstrated knowledge gains from the training, notably those with attendance rates above 70%. AEDOs also demonstrated increased confidence in their ability to deliver extension services with regards to agribusiness and entrepreneurship. Throughout the training workshops, AEDOs maintained an average attendance rate near 75% (ranging from 68-91%, which reflects similar rates seen at administrative meetings outside the YIA context. For attendees, participation rates and motivation were high, measured by the near universal completion (98%) of feedback forms as well as the open and active weekly dialogue between AEDOs and workshop facilitators. An AEDO from Chitsime commented: “For me, the group discussions were the best part of the workshops. Seeing and listening to peers I may not hear from otherwise.”

The addition of fuel allowances to subsidize the cost of transportation for additional meetings with clubs and individual farmers served as a powerful motivational tool in allowing greater access to their sections, more consistent meetings with youth and creating greater accountability in workshop attendance. While some AEDOs felt the quantity of money given (4000MWK/week) was not proportionate to their associated costs, there was universal affirmation of negotiating the rate based on interviews with extension workers, area coordinators, and district extension officers. Finally, the district improved its extension providing capacities to young farmers through increased levels of youth integration into stakeholder panels as well as the increased capacity of the agribusiness officer who received experience in the implementation of participatory programming throughout the workshops. As YFCs expand and infrastructural support for their activities increases, their robustness and participation in stakeholder panels will continue to increase and formalize.

As a Feed the Future project, the YIA results contribute to SANE’s learning and future programming within Malawi’s Zone of Influence by demonstrating a sustainable, participatory approach to agribusiness education for youth that is adaptable across various contexts within Malawi’s pluralistic extension system. The results will inform decision making for future demand-driven, participatory approaches and activities within the SANE project, as well as for Malawi’s Department of Agricultural Extension Services as it continues transitioning to a decentralized system. At the global level, the YIA project contributed to a broader body of knowledge of the factors and potential interventions associated with youth unemployment in Sub-Saharan Africa, specifically in a rural context.

The YIA project has demonstrated a holistic model for implementing targeted district level extension strengthening in a cost-effective and sustainable manner. By combining effective service delivery, incorporating targeted groups into local extension systems, promoting open collaboration among institutions, and building up human and institutional capacities, the systems used in the YIA project can promote dynamic and scalable systems that can be developed in a multitude of contexts worldwide.

Recommendations

With many lessons learned throughout the duration of the YIA project, here are several key recommendations for similar programming, replications, or scaling of the project within Malawi:

Participatory Approaches in Program Development

An early commitment to having local objectives drive project activities was essential to relationship building, community support, and adaptive programming. While our mission and working areas were established at the national level, conversations with Area Stakeholder Panels, extension workers, traditional authorities, and youth ensured programs were reflective of a plurality of community members. Notably, the process of community engagement is more iterative and singular. Multiple meetings with local authorities, extension workers, etc. were often necessary when handling more difficult logistical questions (i.e. frequency and size of allowances.) Even outside of formal partnership, simple presence of project members in the working communities at public events and celebrations can help form lasting partnerships.

While many groups, especially local chiefs and development council members, were excited to collaborate on activities, there is still room for improvement for further activities and engagement of youth in the process. Because extension workers were the ground-level instruments transferring knowledge to youth, oftentimes continued communication with the youth community was difficult outside of initial interviews and endline surveys. Potential future interventions may consider forming a panel of youth participants that is engaged through the programmatic duration in a similar format as a focus group.

At its foundation, the YIA based instruction and learning on the Experiential Learning Cycle, allowing participants to experience, share, and apply new concepts in practice and experimentation with their peers and groups. Within the workshops, techniques such as open-ended feedback forms at the beginning of class and facilitated discussions on both logistics and teaching allowed AEDOs ample space to voice successes and difficulties in their groups. Several feedback processes served as helpful and insightful ways to track learning, as well as AEDO motivation and attitudes towards lessons. Area level extension coordinators were also supportive in frequently attending the workshops to better understand the material taught to their AEDOs, leading to better communication among all stakeholders especially in terms of coordinating events and logistics across multiple areas.

Allow for Sufficient Time for Club Growth and Development

An initial field assessment of existing YFCs in Nyanja and Chitsime revealed a significant disparity between the number of recorded clubs and those that were actually functioning. Further complicating matters were various local perspectives on the definition of what ‘youth’ constitutes in terms of age, with answers varying as widely as ages 8 to 35. A significant drawback of clubs with wide age range is that leadership positions will often default to the oldest male, who may already have children and substantial employment, making empowerment of younger, more vulnerable youth difficult. The YIA project devoted several weeks to the formation and restructuring of existing clubs, however similar engagements may wish to consider allocating more time as the justification and implementation of forming new clubs and restructuring the old proved to be a difficult process to complete uniformly, often requiring meetings with individual AEDOs and their clubs to reinforce goals and objectives.

Equip Extension Workers to Work with Multiple Learning Styles

Potentially the most important value addition of the YIA project approach was the introduction of an experiential learning cycle designed to encourage youth to engage material themselves and with peers, in contrast to more traditional methods that have tended to gravitate towards lectures that often leave youth without an understanding of practical implementation of lessons learned. The YIA's learning-by-doing approach sought to incorporate the realities of the communities' agricultural needs and markets with universal agribusiness principles to equip youth to create effective enterprises.



Figure VI. AEDOs and Several YFC Presidents Visit ACHX, a Commodities Exchange that Engages Smallholder Farmers and Cooperatives

Similar to the workshops they participated in, AEDOs were encouraged to begin YFC meetings with small group discussion time for youth to learn how their peers were approaching the development of their businesses as well as encourage collaboration amongst similar plans. Youth as individuals would also be empowered to lead supplemental lessons or teachings on topics they had demonstrated strong mastery of to build leadership and peer-to-peer pedagogical skills. Each week's topic also included a task that attempted to further integrate classrooms, farms, and markets, e.g. during the week of discussion on product differentiation and market analysis, AEDOs brought their YFC to the nearest market to explore how vendors differentiated products, and asked youth to observe, describe, and discuss how their future

enterprise could potentially enter the market. As shown in Figure VI., AEDOs and YFC presidents are shown visiting ACHX, where YFC presidents and AEDOs were able to learn more about potential implementations of group business plans while encouraging long-term relationships between extension workers, youth, and existing businesses and institutions that can help facilitate sustainable agribusiness growth and development.

Given individual household and education circumstances, alongside the age range stated earlier, the YIA project also faced frequent obstacles in teaching a youth population that showed wide variations in literacy and numeracy. While most concepts could be explained verbally, certain topics such as accounting and recordkeeping proved to be difficult to teach without basic numeracy. Several AEDOs addressed these issues by utilizing collaboration and group assignments so that individual strengths would complement group dynamics while weakness areas could be supported by other group members. Like a typical classroom, AEDOs also faced the same gender, economic, and social forces that drive youth's motivation to participate and engage in material. In particular, many AEDOs reported young female youth being more hesitant to engage in group discussion or answer individual questions.

An important component in encouraging the adoption of varied learning techniques and approaches in the field and classroom was the equipment and knowledge sharing that took place between the AEDOs, the District Agribusiness Officer, and the YIA Research Assistant. Each extension worker carried a wealth of valuable insight into community context and the instruction of young farmers, which allowed the content of the lessons to be tailored appropriately. The Agribusiness Officer's robust technical knowledge contributed to effective decision-making in designing an efficient curriculum that covered the most essential principles over a ten-week period. Experience in implementation of non-traditional and participatory learning methods allowed the YIA Research Assistant to build long-term capacity among the Agribusiness Officer as well as the extension workers to more effectively engage their colleagues as well as the youth that they work with.

Use Monitoring and Evaluation to Drive Adaptive Programmatic Decisions

As mentioned earlier, open-ended feedback forms and discussions were an empowering way to start every workshop session. Weekly feedback served as a check-for-learning tool and allowed AEDOs to demonstrate that the workshop knowledge was tangibly becoming part of their practice. Part of this success was the fact that the previous week's feedback was evaluated closely, often with a follow-up discussion during the next week, ultimately allowing for dynamic programming that could match the ever-changing landscape of the informal classroom in which AEDOs taught. For example, early AEDO feedback often noted that examples from the original FBS curriculum seemed generic in scope, leading to workshop facilitators incorporating new examples, often integrating livelihoods outside of growing of traditional staple crops, that more accurately reflected the types of agribusiness youth are more likely to be engaged by. The feedback also directly affected module content, by allowing us to identify topics that were significantly more difficult for extension workers so that we could reiterate and approach the content in new ways to more effectively support their capacity and retention of knowledge.

Implement with Relevant, Targeted Training Materials that Promote Positive Group Dynamics

Sustainable YFCs require AEDOs that are creative and entrepreneurial mobilizers of youth in their communities. Building capacity of AEDOs to mobilize their youth requires content that clearly links what is happening in field guidebooks to the reality of work in their communities. By supplementing the FBS curriculum with field-tested principles of farmer engagement from the AAB curriculum, our lessons achieved greater levels of practicality and relevance by establishing firm foundations in universal principles of



agribusiness that were built on with follow-up facilitated discussions in practical implementation on topics such as: Working in Small Groups, Identifying Strengths and Opportunities, and Group Structure and Decision Making. Peer-to-peer discussions formed the core means of creating an experiential learning cycle that allowed AEDOs to integrate their lesson notes with discussions and activities that clearly linked classroom lessons with in-field takeaways. An immediate benefit of these discussions was establishing greater formal infrastructure within groups with an AEDO from Nyanja commenting: “Our lessons on Group Formation gave me clear direction in establishing leaders in my group so that the youth have greater responsibility and ownership of their club.”

Make Time and Space for Extension Worker Collaboration and Group Learning

An additional benefit of frequent, varied, facilitated discussions was the ample amount of space made for AEDOs to listen to perspectives outside their own and that of the facilitators. In these spaces, a new idea of one extension worker could be developed, refined, and critiqued on the spot by colleagues bringing in over 100 years of field experience collectively in urban, peri-urban, and rural communities. It should be noted that this process is not always immediate or easily achieved, often with significant amounts of time spent gently encouraging individuals to participate and engaging the group as a whole to take initiative in critical thinking, problem solving, and the advising of their peers. As the culture of collaboration grew in strength, many discussions carried on outside of the workshops, establishing strong networks for peer-to-peer learning, one of the most viable options for facilitating knowledge transfers in resource constrained communities.

Use Incentives and Accountability Measures to Encourage Robust Participation

Initial key informant interviews in Nyanja and Chitsime verified many of the concerns noted in the MEAS Report, most notably in terms of transportation and logistical difficulties faced by AEDOs in reaching, on average, over 2000 households in areas with very little road infrastructure or public transportation available. In coordination with the area and district extension offices, the YIA project designed a modest travel stipend that would serve as an accountability measure to AEDOs in addition to addressing transportation difficulties. The amount was determined through discussions between the YIA project and the District Development Officer, District Agribusiness Officer, and the AEDCs and AEDOs of each EPA to

measure actual travel costs as accurately as possible. Because of varying living locations, transportation costs naturally varied by AEDO, but allocating varying stipends level per AEDO was determined to be an inefficient and potentially controversial method relative to the actual cost differentials. Thus, the final stipend reflected the cost incurred by the AEDO with the highest costs, translating to approximately \$5.50/USD. When several AEDOs still felt this amount was too small, group discussions in conjunction with each EPA AEDC helped the stipend rationale be explained more clearly, namely to differentiate that the stipend was meant only to cover travel costs, and not any form of salary or wage compensation.

By making the stipend conditional upon the presentation of a weekly signed attendance sheet from their youth club, a completed reflection form from group discussions, as well as visible and active participation throughout each workshop, AEDOs developed greater capacity for record keeping as well as a model for implementing accountability measures within their own YFCs. Efficient stipends significantly contributed to broader programmatic goals of fiscal responsibility and reducing resource waste and inefficiency.

Ensure the Training Timeline is Synchronized with Extension Worker Schedules

By coordinating programming at the community level, the YIA project was able to have a more detailed and nuanced view of the practical daily, weekly, monthly, and seasonal tasks of an extension worker. Understanding how these timelines interact was critical to ensuring that programming did not take place during a burdensome season or on a day when existing time conflicts would hamper learning. The majority of YIA projects took place in September and October, months with relatively less activity as compared to the planting season which typically begins in Mid-December to January. Conflicts can still arise from the convergence of so many stakeholder's calendars, which is why many AEDOs appreciated the flexibility of the YIA project to make adaptive changes to ensure as much participation as possible.

Scale Principles and Fundamentals; Individualize Techniques and Application

The participatory learning approaches used by the YIA project are an effective set of pedagogical values that can empower farmers in any context assuming mutual commitment to feedback and improvement among extension actors and farmers. In this regard, scaling efforts should closely reiterate the methods used by the YIA project. However, the material application of instruction techniques, feedback mechanisms, and incentive structures may vary widely across geographical settings in order to maximize the efficiency of programming. In this regard humility, patience, and commitment to understanding local cultural contexts will be essential to success.

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Appendix I. Sample Characteristics

Number of Agricultural Extension Agents (AEDOs) participating	29 (21 women, 8 men)	Though Nyanja and Chitsime are predominately female, this varies significantly by EPA.
Number of Extension Agent Coordinators (supervising area AEDOs) participating	2 (both male)	Representing 100% of the Nyanja and Chitsime EPA.
Number of EPAs Sampled	2 (Nyanja and Chitsime)	
Number of Communities Sampled	48	Most communities had an individual YFC, while some YFCs drew from multiple communities.
Number of YFCs	38	Most AEDOs worked with one YFC, however several chose to form multiple groups across several villages.
Number of YFC members receiving training	965 (498 female)	All groups were mixed gender, maintaining relative gender parity across clubs.
YFC Primary Target Commodities	Soya, Maize, Groundnut	

Appendix II. Session Schedule Template

Workshop Outline and Expectations

Goals and Vision

Formation of Youth Clubs

The DAES Office has called for the creation of Young Farmers Clubs, groups of young men and women learning more about agriculture and agribusiness practices. AEDOs are responsible for the formation of at least one Young Farmers Club in their section.

Some clubs already exist, but often include many non-youth or are focused on topics other than agriculture or agribusiness. We hope that you will consider forming a new club, as they will likely be more effective if they are all youth.

A group can be of any size, but 15-30 is recommended to keep it manageable. You can form more than one club if you would like, but you will not receive any additional allowances. Forming a club entails: A documented roster, regular attendance taking, and a meeting where youth establish the club's vision and direction moving forward. Clubs may have a topic focus like Soya production, etc. This is the decision of the AEDO and the youth. It is not required but may help group dynamics.

Direct Transfer of Agribusiness Knowledge in an Engaging and Participating Manner

Besides receiving training and knowledge, we also hope to discuss and learn as a group what teaching methods can engage youth at little to no cost. We understand that many youth will grow tired or bored if the lessons become a lecture by the AEDO, so we will be working together to find ways that youth feel motivated to come to meetings.

Creation of Business Plans

A major tool used to engage youth and give them a tangible output to their club is the formation of a business plan. This plan will be developed throughout the 10 weeks, little by little. You will help the youth complete their business plan, especially those who may have issues with literacy or numeracy. Completing a business plan will be required to earn the completion certificate.

Integration of Youth into Extension and Political Systems

We hope that club leaders are able to represent and voice the needs of the club in the community. This may be as simple as participating in local Area Development Council meetings, or presenting their business plans to different agricultural panels in the community.

Direction, Guidance, and 'Next Steps' in Beginning a Business

Following the completion of their business plan, we want youth to have clear steps forward in starting their business. This could be taking their idea to a local village savings and loan, attending a seminar in the city to learn more about a certain topic, etc. We want to use community resources and institutions to help youth move forward. If you think you know of any

organizations – e.g. Finca, World Vision etc. that could help provide loans or human resources to start their business please contact Khumbo or myself, and we will do our best to look into potential partnerships.

2. Expectations

AEDOs

AEDOs are responsible to facilitate the 5 goals listed above. For transportation to and from our workshops, you will be given a fuel allowance of **4000 MWK**. This amount will not change regardless of where your section is or how many clubs you have. If you find this to be problematic, please speak with your DADO or national level representative.

To receive your allowance you will need to do each of the following each week:

- **Bring in an attendance sheet signed by each youth for that week's meeting**
- **Complete a reflection form at the beginning of the workshop**
- **Bring a completed youth club roster and vision statement**
- **Attend and participate in the workshop (this also means being on time to start)**

Failure to comply with any of the following each week will result in the allowance not being given for that week.

Youth

To receive their certificate, youth need to:

- Attend club meetings each week (at least 8/10 meetings to receive the certificate)
- Complete a business plan

4. Course structure and content

Tentative Schedule

Week 1: Group dynamics and Forming Mission Statements and Goals | Our Purpose and Educating Youth

Week 2: Enterprise Development | Group Dynamics and Tips from Other AEDOs

Week 3: Value Addition | The Power of Small Groups

Week 4: Market Research | Identifying Opportunities in Your Communities

Week 5: Organizational Structure | Group Structure and Decision Making

Week 6: SWOT Analysis | Refining Strengths and Capitalizing on Opportunities

Week 7: Gross Margin Analysis I | Group Finances and Management

Week 8: Gross Margin and Break Even Analysis II | Measuring Intangible and Shared Costs

Week 9: Marketing | Group Marketing Strategies

Week 10: Finalizing Business | Presenting Your Business Plans

****All lessons are subject to change based on teaching pace, setbacks, unforeseen circumstances, etc.**

5. Business Plans

Business plans can be developed individually or in groups of up to 5 youth if they would like to form a business together. Groups can potentially be bigger, but the AEDO must present a way of dividing the work so that everyone contributes in a significant way. Business plans will be documented on paper by someone who can write. While there is not an exact format to the business plan, it should contain these 10 components:

- 1) Mission statement
- 2) Description of the product or service
- 3) How your product or service is different from those currently offered
- 4) Market analysis of their community: who are competitors, and where you fit
- 5) Describe team members (if more than one), as well as prior experience, knowledge, etc.
- 6) Analyze potential strengths, weaknesses, opportunities, and threats to your business
- 7) Develop a theoretical cash flow statement to understand financial needs
- 8) Create revenue projections
- 9) How you plan to market your product
- 10) Summary/conclusion that brings everything together

Business plans will be documented by youth on the loose leaf paper given to AEDOs. If youth are able to write out components of the plan themselves, then AEDOs should empower them to do so. If an individual or group is experiencing difficulty with illiteracy they can explore other options for presentation, e.g. presenting verbally to their ADC etc.

5. Certification and Next Steps

The completion certificate is designed to incentivize youth to attend club meetings consistently as well as lend a sense of validity and credibility if the youth pursue a loan from a village savings and loan, etc. While the SANE project cannot provide inputs, seed, microloans, etc. to sponsor youths' future steps forward, we are able to help connect youth with already existing banks, organizations, NGOs or other institutions that already work in the communities they live in. To receive the certificate, youth must have participated in a completed business plan and attended at least 80% of meetings.

6. Feedback and Improvement

Each week you will complete a reflection form that allows you to discuss how the process of guiding and teaching your club has gone. Here you can share the good and bad, and we will work together to improve. There will also be a space for you to write about the workshops and make recommendations for improving those as well.

[Frequently Asked Questions]

Who is a youth? While the definition varies based on the organization, we believe that youth are those aged roughly 14-30. In terms of club membership, if someone is a year or two above or below this range, do not forbid them if they are genuinely interested.

Will I receive stationary to help instruct? Yes, each AEDO will receive a flip chart, an A4 notebook, as well as a pen and marker for instruction. Loose paper and pens or pencils will be provided for youth to document their business plans.

Will our youth receive lunch, refreshments, or compensation? That is your choice, but the SANE project will not be providing funds for your group to have snacks, refreshment, lunch etc.

What happens to our clubs after the workshops end? Keep meeting! Hopefully you can begin helping them develop their businesses as well as continue to teach them lessons. With regards to logistics and fuel, you will no longer be receiving an allowance through the SANE project, but if you demonstrate strong results you can present these to your DADO and national level representatives to request more resources to implement.

How many sessions do we have? Approximately 10 sessions, unless circumstances call for more or less. Each session will last between 2-3 hours and take place once a week, with the time varying based on the schedules given by both AEDCs.

What happens if the sessions go long? The sessions will not go long as long as everyone shows up on time. But if many come late, we may have to wait for them to start, prolonging the total time in workshop. So please be on time to respect everyone's schedule.

What will we do in our workshops? Workshops will normally begin with feedback about last week's successes and struggles. Then, the current week's topic will be facilitated by the Agribusiness Officer. Finally, the last portion of time will be spent on how to bring knowledge to youth in an engaging way.

Do I get my allowance if I miss a session? No. **Attendance is required.** If you miss a workshop because of a funeral, family obligation, etc. that is understandable, but you will not receive your fuel allowance that week, though you are still encouraged to meet with your youth.

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Appendix III. Youth Baseline Instrument

Youth Baseline Survey

Q1 Enumerator Name

Q2 Participant Name

Q3 Participant Number

Q4 EPA Name

Q5 Village Name

Q6 AEDO Name

Q7 Date

(FOR NON-CLUB MEMBERS SKIP TO 13)

Q8 How important is participation in a youth club to your agricultural knowledge and employment?

Ndikofunikira bwanji kutenga nawo mbali mu Youth Club komwe mumaphunzira za ulimi ndi ntchito

- ☐ Extremely important (1)
- ☐ Very important (2)
- ☐ Moderately important (3)
- ☐ Slightly important (4)
- ☐ Not at all important (5)

Q9 How often do you attend youth club meetings?

Ndikangati mumapezeka ku mkumano/ misonkhano ya Youth Club

- ☐ More than once a week (1)
- ☐ Once a week (2)
- ☐ Once every two weeks (3)
- ☐ Once a month (4)
- ☐ Less than once a month (5)
- ☐ This is our first meeting (6)

Q10 What topic do you discuss most frequently at your youth club? (Choose only the one MOST frequently discussed!)

Ndi mutu uti umene mumakonda kakambirana kawirikawiri mukakumana ku Youth Club

- ☐ Forestry (1)
- ☐ Agribusiness (2)
- ☐ HIV/AIDS and Sexual Health (3)
- ☐ Nutrition (4)
- ☐ Other (5) _____
- ☐ Village Savings and Loan (6)
- ☐ Community Development (7)

Q11 How many friends or family members do you know in your youth club? (Any number above 5 is

coded as 4 in excel.)

Ndi anzanu kapena abale angati amene mumawadzuwa mu Youth Club yanuyi

- ☐ 0 (1)
- ☐ 1 (2)
- ☐ 2-4 (3)
- ☐ 5 or more (4)

Q12 What do you enjoy most about your youth club meetings?

Ndichiti chimene mumakondwera nacho kwambiri ku Youth Club

- ☐ Seeing friends and family (1)
- ☐ Talking with other young farmers (2)
- ☐ Learning lessons from extension workers (3)
- ☐ Other (4) _____

Q13 How often do you attend religious, events, services or activities in your community on a weekly basis? (If they do not attend religious events, code as 0.)

Ndikangati pamulungu mumapita ndi kukakhala nawo pa mapemphero ndi zochitika zina za mmudzi muno

- ☐ 0 to 1 times (1)
- ☐ 2-4 times (2)
- ☐ 5-6 times (3)
- ☐ Almost every day (4)

Q14 Are you a part of any other clubs or organizations?

Kupatula mu gulu limeneli mukhala nawonso mmagulu ena ?

- ☐ Yes (1)
- ☐ No (2)

If No Is Selected, Then Skip to Approximately how much land does your family take care of...

Q15 What kind of club is it?

Gulu limeneli ndi liti?

- ☐ Agriculture or Agribusiness (1)
- ☐ Health (2)
- ☐ Sports and Recreation (3)
- ☐ Community Service (4)
- ☐ Other (5) _____
- ☐ Village Savings and Loan (6)
- ☐ Community Development (7)

Q16 How often do you attend non-religious club or organization activities in your community on a weekly basis?

Kodi ndikangati pamulungu mumapita kukhala nawo mmagulu osakhudzana ndi za chipemphedzo mmudzi muno?

- ☐ 0 to 1 times (1)
- ☐ 2 to 4 times (2)
- ☐ 5 to 6 times (3)
- ☐ Almost every day (4)

Q17 Approximately how much land does your family own?

Moyelekeza muli ndi malo akulu bwanji pa banja lanu?

0 to .5 Hectares (1)

☐ .5 to 2 Hectares (2)

☐ 2 to 5 Hectares (3)

☐ 5 - 25 Hectares (4)

☐ 25 or more Hectares (5)

Q18 Does your family own any livestock apart from goats or chicken?

Kupatulako nkhuku ndi mbuzi muli ndi ziweto zina?

☐ Yes (1)

☐ No (2)

Q20 Have you received agricultural advice in the last 12 months?

Kodi mwalandirako upangiri wina uliwonse wa za ulimi miyezi khumi ndi iwiri yapitayi?

☐ Yes (1)

☐ No (2)

If No Is Selected, Then Skip To Q23

Q21 Who did you receive advice from?

Munalandira kuchokera kuti?

☐ NGO (1)

☐ Private Sector (2)

☐ Extension Agents (3)

☐ Other Community Members (4)

☐ Other (5) _____

Q22 How would you rate the quality of the advice you received?

Mungayike pamuyeso uti upangiri omwe mwalandirawu?

☐ Very High (1)

☐ High (2)

☐ Average (3)

☐ Low (4)

☐ Very Low (5)

Q23 Have you ever received training on agribusiness in the last two years?

Kodi mwalandirako maphunziro a ulimi wa business zaka ziwiri zapitazi?

☐ Yes (1)

☐ No (2)

Q24 How would you describe your overall awareness of agribusiness?

Ndimulingo wanji wa chidziwitso cha ulimi wa business umene muli nawo?

☐ Very Low (1)

☐ Low (2)

☐ Average (3)

☐ High (4)

☐ Very High (5)

Q25 Would you like to migrate to a major city within 5 years?

Pakutha pa zaka zisanu zikubwerazi muli di malingaliro wopita ku town?

- ☐ Yes (1)
- ☐ No (2)

If No Is Selected, Then Skip To How much would you expect to make from employment in a city...

Q26 How strong is this desire?

Chikhumbokhumbo chanu ndi chachikulu bwanji?

- ☐ Very Low (1)
- ☐ Low (2)
- ☐ Neither High or Low (3)
- ☐ Somewhat High (4)
- ☐ Very High (5)

Q27 What is your main motivation for wanting to migrate?

Ndichani chikukupangitsani kufuna kukhala ku town?

- ☐ Higher Wages (1)
- ☐ Prefer an Urban Environment (2)
- ☐ To be closer to friends or family (3)
- ☐ University or Further Education (4)
- ☐ Other (5) _____

Q28 How much would you expect to make from employment in a city on a monthly basis?

Mukuganiza kuti mungapange ndalama zingati pa mwezi mutamagwira ntchito m'town?

- ☐ 0 to 20000 MWK (1)
- ☐ 20001 to 70000 MWK (2)
- ☐ 70001 to 140000 MWK (3)
- ☐ 140001 to 700000 MWK (4)
- ☐ More than 700000 MWK (5)

Q29 How strong is your desire to live and work in your current community?

Chikhumbokhumbo chanu ndi chachikulu bwanji kukhala ndi kugwira ntchito m'dera lanu limene mukuchokera?

- ☐ Very Low (1)
- ☐ Somewhat Low (2)
- ☐ Neither Low Nor High (3)
- ☐ Somewhat High (4)
- ☐ Very High (5)

Q30 About how many hours have you spent in the last week on household chores and agricultural activities?

Mulungu watha mwagwira maola angati pa ntchito za pakhomu ndi kumunda?

- ☐ 0 to 10 (1)
- ☐ 11-20 (2)
- ☐ 21-31 (3)
- ☐ 31-40 (4)
- ☐ 40 or more (5)

Q31 About how many hours have you spent in the last week on casual, part-time, or informal labor?

Mulungu watha mwangwira maola ku ganyu?

- ☐ 0 to 10 (1)
- ☐ 11-20 (2)
- ☐ 21-31 (3)
- ☐ 31-40 (4)

Q33 Are you currently employed by an employer that is not your family or ganyu/informal labor?

Pakadali pano mumagwira ntchito kapena ganyu?

- ☐ Yes (1)
- ☐ No (2)

If No Is Selected, Then Skip To How much money in total do you expect...

Q34 Approximately how many hours a week do you work at this job?

Mongoyelekeza ndi maola angati amene mumagwira pa mulungu?

- ☐ 0 to 10 (1)
- ☐ 11-20 (2)
- ☐ 21-31 (3)
- ☐ 31-40 (4)
- ☐ 40 or more (5)

Q35 How much money in total do you expect to make over the next month?

Ndi ndalama zochuluka bwanji zomwe mukuyembekezera kuti mutha kupanga mwezi wa mawa?

0 to 20000 MWK (1)

- ☐ 20001 to 70000 MWK (2)
- ☐ 70001 to 140000 MWK (3)
- ☐ 140001 to 700000 MWK (4)
- ☐ More than 700000 MWK (5)

Q36 Which issues do you think make finding agricultural employment most difficult? (Select all that apply)

Ndimavuto anji amene mumamakuna nawo pa ntchito yanu ya ulimi?

- ☐ Lack of Access to Land (1)
- ☐ Lack of Training Available (2)
- ☐ Not Enough Jobs (3)
- ☐ Lack of Access to Credit (4)
- ☐ Other (5) _____
- ☐ All of the above (6)

Q37 Do you think you will inherit land from your parents?

Mukuganizakuti mutha kudzatenga malo amakolo anu?

- ☐ Yes (1)
- ☐ No (2)

If No Is Selected, Then Skip To Have you ever wanted to start your ow...

Q38 How much land do you think you will inherit?

Ndiye mukuganiza kuti adzakusiyilani malo ochuluka bwanji?

- ☐ 0 to .5 Hectares (1)
- ☐ .5 to 2 Hectares (2)
- ☐ 2 to 5 Hectares (3)
- ☐ 5 - 25 Hectares (4)
- ☐ 25 or more Hectares (5)

Q39 How strong is your desire to pursue agricultural activity on that land?

Khumbo lanu lofuna ku gwilita nchito malowo panchito za ulimi ndi lo chuluka bwanji?

- ☐ Very Low (1)
- ☐ Somewhat Low (2)
- ☐ Neither Low Nor High (3)
- ☐ Somewhat High (4)
- ☐ Very High (5)

Q40 Have you ever wanted to start your own business?

Munafunapo mutayambitsa business yanuyan?

- ☐ Yes (1)
- ☐ No (2)

If No Is Selected, Then Skip To Have you ever taken out a loan or rec...

Q41 Do you feel you have the skills necessary to pursue this business idea?

Mukuwona ngati mulindi ukadawulo wokwanila pa ganizo lofuna kuyabitsa business yanuyo?

- ☐ Yes (1)
- ☐ No (2)

Q42 What factor is strongest in preventing you from pursuing this business?

Chomwe chikukulepheletsani kuti myambitse business yanu ndi chani?

- ☐ Current Job Obligations (1)
- ☐ Family Obligations (2)
- ☐ Lack of Access to Credit (3)
- ☐ Lack of Business Experience and Knowledge (4)

Q43 What is the actual likelihood of you pursuing this business?

Mwayi wanu ndiwawukulu bwanji kuti mutha kuyambitsa business imeneyi?

- ☐ Very likely (1)
- ☐ Likely (2)
- ☐ Not sure (3)
- ☐ Not very likely (4)
- ☐ Not likely (5)

Q44 Have you ever taken out a loan or received a form of credit for business purposes?

Kodi munayamba mwa ngongola kapena kulandilapo ndalama yoyambitsila kapena kuyendetsela business?

- ☐ Yes (1)
- ☐ No (2)

If No Is Selected, Then Skip To End of Block

Q45 Where did you receive this loan?

Ngongole imeneyi munakayipeza kuti?

- ☐ A Village Loan Association (1)
- ☐ Another Family Member or Friend (2)
- ☐ A Loan Business (3)
- ☐ Other (4) _____

Q46 For how much was this loan taken out for?

Munabweleka ndalama yochuluka bwanji?

- ☐ 0 to 20000 MWK (1)
- ☐ 20001 to 70000 MWK (2)
- ☐ 70001 to 140000 MWK (3)
- ☐ 140001 to 700000 MWK (4)
- ☐ More than 700000 MWK (5)

Q47 What is your gender?

Kodi ndinu amuna kpena akazi?

- ☐ Male (1)
- ☐ Female (2)

Q48 How old are you?

Muli ndi zaka zingati?

- ☐ 10-15 (1)
- ☐ 16-20 (2)
- ☐ 20-24 (3)
- ☐ 25-29 (4)
- ☐ 30-34 (5)
- ☐ 35 or older (6)

Q49 Are you married?

Muli pa banja?

- ☐ Yes (1)
- ☐ No (2)

Q50 Do you have children?

Muli ndi ana?

- ☐ Yes (1)
- ☐ No (2)

(You may code a genuine lack of knowledge as '0' for questions 51-75)

Q51 What is an entrepreneur?

Munthu wopanga malonda ndi ndani?

- ☐ A person who makes loans to other businesses (1)
- ☐ A person who starts their own business (2)
- ☐ A person who works for another business (3)
- ☐ A person who goes to college (4)

Q52 What is the first step an entrepreneur takes in starting a business?

Ndi njira iti imene munthu wopanga malonda ayenela kutsata asana yambe business

- ☐ Start a records book (1)
- ☐ Finding and identifying opportunities and a market (2) (*Kupeza, kufufuza mwayi wa misika*)
- ☐ Creating a business plan (3)
- ☐ Getting a loan to start the business (4)

Q53 Which is an example of a service business?

(Pa zinthu izi ndi ati amene ali malonda a ntengatenga?)

- ☐ A brick salesman (1)
- ☐ A taxi driver (2)
- ☐ A farmer (3)
- ☐ An Airtel Salesmen (4)

Q54 You only need a business plan if you are looking for a loan.

Ndondomeko ya business imafunika pokhapokha ukafuna kutenga ngongole.

- ☐ True (1)
- ☐ False (2)

Q55 Which would you NOT include in your business plan?

Mwa izi ndi zinthu ziti zomwe simungayikemo mundondomeko yanu ya business?

- ☐ The name of the business (1)
- ☐ How much it will cost to start your business (2)
- ☐ What your profits will be after one year (3)
- ☐ The product or service you want to sell (4)

Q56 Which of these is the best definition of a competitor?

Pa zinthu zomwe ndichulezi, ndi chiganizo chiti chomwe chikufotokoza bwino munthu wopikisana naye business?

- ☐ A nearby business (1)
- ☐ A business that provides a similar good or service (2)
- ☐ A business that has more locations (3)
- ☐ A business that has greater capital and revenue (4)

Q57 What is the result of the difference between revenue and costs?

Zotsatila za ndalama yomwe mwayendetsera business kuchotsela ku ndalama yomwe mwapeze zima chedwa kti chani?

- ☐ Total budget (1)
- ☐ Daily costs (2)
- ☐ Profit (3)
- ☐ Income (4)

Q58 How is revenue calculated?

Kodi munga welengetsele bwanji ndalama lomwe mwapeza?

- ☐ Price x Quantity Sold (1)
- ☐ Price + Quantity Sold (2)
- ☐ Quantity Sold - Cost (3)
- ☐ Price - Cost (4)

Q59 If a plow is worth 1500 kwacha and depreciates 10% of its total value every year, how much is worth

after 4 years?

Ngati khasu la MK1,500 likutsika ntengo ndi 150 pa chaka chilichionse, kodi ntengo wake pakadutsa zaka uzakhala bwanji?

- ☐ 300 MWK (1)
- ☐ 1500 MWK (2)
- ☐ 1350 MWK (3)
- ☐ 900 MWK (4)

Q60 How can you lower your labor costs?

Ndi njila zANJI zomwe mungagwilitse kuti muchepetse ndalama yo pelekedwa kwa anthu okugwililani nchito?

- ☐ Buying cheaper materials (1)
- ☐ Having employees work less hours (2)
- ☐ Raising your prices (3)
- ☐ Increasing profit margins (4) **(Kupez njila yofuna kukweza phindu lanu)**

Q61 A food stall costs 100 kwacha for the day, and your nsima costs you 30 kwacha to make per plate, how many plates do you need to sell to break even if you charge 60 kwacha per plate?

Mumalipila 100 kwacha pa tsiku pa malo amene mma gulitsila chakudya, ndipo mbale imodzi ya nsima mumalowetsa ndalama zokwana 30 kwacha, mutate mwagulitsa mbale imodzi pa 60 kwacha, mukuyenela kugulitsa mbale zingati kuti mubwezeletsa zonse zomwe mwawononga?

- ☐ Atleast 2 (1)
- ☐ Atleast 3 (2)
- ☐ Atleast 4 (3)
- ☐ Atleast 5 (4)

Q62 If it costs Lucius 500 kwacha to make a bracelet and he sells the bracelets for 1100 kwacha each, what is his profit per bracelet?

Ngati Lucius akugwilitse nchito 500 kwacha po panga chibangili, ndipo akugulitsa chi bangilicho pa ntengo wa 1100 kwacha. Ndi phindu lanji lomwe akupeza pachibangili chimozi?

- ☐ 600 MWK (1)
- ☐ 1600 MWK (2)
- ☐ 500 MWK (3)
- ☐ 700 MWK (4)

Q63 Chisomo makes 700 kwacha for every chicken she sells, if she sells 7 chickens in a day, how much has she made?

Chisomo akupeza 700 kwacha pa nkuku iliyonse yomwe akugulitsa, ata gulitsa nkuku 7 pa tsiku, ndi ndalama zingati zomwe angapeze?

- ☐ 700 MWK (1)
- ☐ 707 MWK (2)
- ☐ 4900 MWK (3)
- ☐ 693 MWK (4)

Q64 Which of the following is NOT a variable cost?

Pa zinthu izi ndiziti zili ndi ntengo wosa khazikika?

- ☐ Seed (1)
- ☐ Rent for a stall (2)
- ☐ Labour (3)
- ☐ Fertilizer (4)

Q65 Understanding and focusing on a certain group of people with the most potential to buy your products is called

Kumvetsetsa ndiku chilimika pa gulu la anthu omwe alindi kuthekela kogula katundu wanu lima chedwa kuti chani?

- ☐ Pricing (1)
- ☐ Record Keeping (2)
- ☐ Market Opportunity Analysis (3) ***(Kudziwa nsika wamalonda ako)***
- ☐ Start Up Costs (4)

Q66 The most difficult competitor to compete in is one with

Munthu wovutitsa ku pikisana naye pa business ndi?

- ☐ Different products (1)
- ☐ Similar products (2)
- ☐ Lower quality products (3)
- ☐ High quality products (4)

Q67 What is the first step in the consumer decision making process?

Ndi chintu chiti choyamba chomwe munthu wogula katundu amaganizila pofuna ku gula katundu?

- ☐ Evaluating choices (1)
- ☐ Recognizing a need (2)
- ☐ Identifying alternatives (3)
- ☐ Determining satisfaction (4)

Q68 If you want to borrow money, who can you ask?

Ngati muku funa kubweleka ndalama ndi kuti komwe mungaka funse?

- ☐ A bank (1)
- ☐ Village saving and loan association (2)
- ☐ Family members (3)
- ☐ All of the above (4)

Q69 When asking for a loan, the borrower must consider which of these characteristics?

Mukama funsa ngongola ndalama ndiziti mwa izi zomwe mukuyenela kulingalilapo musana bweleke ndalamazo?

- ☐ The source of the loan (1)
- ☐ Amount of the loan (2)
- ☐ Repayment schedule (3)
- ☐ All of the above (4)

Q70 The additional cost of a loan beyond the principle is affected by...

Ka bwelekedwe ka ndalama kamakhudzika ndi...

- ☐ Interest rates (1)
- ☐ Loan duration (2)
- ☐ What type of business you are starting (3)
- ☐ Both A and B (4)

Q71 If you take out a loan for 10000 MK and the interest costs 400 MK per month, how much would you owe in total after 4 months?

Ngati mwa ngongola ndalama yo kwanila 10,000 kwacha ndipo yo wonjezela pamwamba kukhala 400 pa mwezi muza funika ku bweza ndalama zingati pakadutsa miyezi 4?

- ☐ 10400 MWK (1)
- ☐ 11600 MWK (2)
- ☐ 8400 MWK (3)
- ☐ 12000 MWK (4)

Q72 For your business records it's a good idea to

Mu kaundula wanu wa business ndi bwino kuti...

- ☐ Not keep receipts if the transaction was in cash (1)
- ☐ Start immediately (2)
- ☐ Start after one year of business (3)
- ☐ Not record times where you used personal funds for the business (4)

Q73 Which of the following is the most direct benefit to record keeping?

(Mwa izi ndi phindu lanji mungalipeze posunga kaundula wanu wa mabuku?)

- ☐ Accurate financial data (1)
- ☐ Better understanding of your market (2)
- ☐ Good records prevent debt (3)
- ☐ Keeping track of inventory (4)

Q74 Home expenses should be included in your business record keeping

(Ndalama zimene mumagwilitsa nchito pa khomo zizilembedwaso mukawundula wa business)

- ☐ True (1)
- ☐ False (2)

Q75 Which of the following is NOT part of a basic records keeping system for your business?

(Mzinhu izi, ndiziti zomwe zili zofunikila ku sunga mukaundula wanu za business?)

- ☐ Cash inflow (1)(*Ndalama zones zolowa*)
- ☐ Marketing strategy (2)(*Njila zopangila malonda*)
- ☐ Cash outflow (3)(*Ndalama zotuluka mu business*)
- ☐ Inventory records (4)(*Kaundula wa katundu amene mulinaye*)

Thank them for their time and participation!

Appendix IV. AEDO Baseline Knowledge Instrument

Name:

Phone number:

Whatsapp: Yes or No –circle one-

(There is only one answer to each question, you may write '0' if you are not sure of the answer beside the question)

Q1 What is an entrepreneur?

Munthu wopanga malonda ndi ndani?

- ☐ A person who makes loans to other businesses (1)
- ☐ A person who starts their own business (2)
- ☐ A person who works for another business (3)
- ☐ A person who goes to college (4)

Q2 What is the first step an entrepreneur takes in starting a business?

Ndi njila iti imene munthu wopanga malonda ayenela kutsata asana yambe business

- ☐ Start a records book (1)
- ☐ Finding and identifying opportunities and a market (2)(*Kupeza, kufufuza mwayi wa misika*)
- ☐ Finishing a business plan (3)
- ☐ Getting a loan to start the business (4)

Q3 Which is an example of a service business?

(Pa zinthu izi ndi ati amene ali malonda a ntengatenga?)

- ☐ A brick salesman (1)
- ☐ A taxi driver (2)
- ☐ A farmer (3)
- ☐ An Airtel Salesmen (4)

Q4 You only need a business plan if you are looking for a loan.

Ndondomeko ya business imafunika pokhapokha ukafuna kutenga ngongole.

- ☐ True (1)
- ☐ False (2)

Q5 Which would you NOT include in your business plan?

Mwa izi ndi zinthu ziti zomwe simungayikemo mundondomeko yanu ya business?

- ☐ The name of the business (1)
- ☐ How much it will cost to start your business (2)
- ☐ What your profits will be after one year (3)
- ☐ The product or service you want to sell (4)

Q6 Which of these is the best definition of a competitor?

Pa zinthu zomwe ndichitulezi, ndi chiganizo chiti chomwe chikufotokoza bwino munthu

wopikisana naye business?

- ☐ A nearby business (1)
- ☐ A business that provides a similar good or service (2)
- ☐ A business that has more locations (3)
- ☐ A business that has greater capital and revenue (4)

Q7 What is the result of the difference between revenue and costs?

Zotsatila za ndalama yomwe mwayendetsera business kuchotsela ku ndalama yomwe mwapeze zima chedwa kti chani?

- ☐ Total budget (1)
- ☐ Daily costs (2)
- ☐ Profit (3)
- ☐ Total variable cost (4)

Q8 How is revenue calculated?

Kodi munga welengetsele bwanji ndalama lomwe mwapeza?

- ☐ Price x Quantity Sold (1)
- ☐ Price + Quantity Sold (2)
- ☐ Quantity Sold - Cost (3)
- ☐ Price - Cost (4)

Q9 If a plow is worth 1500 kwacha and depreciates 10% of its total value every year, how much is worth after 4 years?

Ngati khasu la MK1500 likutsika ntengo ndi 150 pa chaka chilichionse, kodi ntengo wake pakadutsa zaka uzakhala bwanji?

- ☐ 300 MWK (1)
- ☐ 1500 MWK (2)
- ☐ 1350 MWK (3)
- ☐ 900 MWK (4)

Q10 How can you lower your labor costs?

Ndi njira zANJI zomwe mungagwilitse kuti muchepetse ndalama yo pelekedwa kwa anthu okugwililani nchito?

- ☐ Buying cheaper materials (1)
- ☐ Having employees work less hours (2)
- ☐ Raising your prices (3)
- ☐ Increasing profit margins (4) **(Kupez njira yofuna kukweza phindu lanu)**

Q11 A food stall costs 100 kwacha for the day, and your nsima costs you 30 kwacha to make per plate, how many plates do you need to sell to break even if you charge 60 kwacha per plate?

Mumalipila 100 kwacha pa tsiku pa malo amene mma gulitsila chakudya, ndipo mbale imodzi ya nsima mumalowetsa ndalama zokwana 30 kwacha, mutate mwagulitsa mbale imodzi pa 60 kwacha, mukuyenela kugulitsa mbale zingati kuti mubwezeletsa zonse zomwe mwawononga?

- ☐ Atleast 2 (1)
- ☐ Atleast 3 (2)
- ☐ Atleast 4 (3)
- ☐ Atleast 5 (4)

Q12 If it costs Lucius 500 kwacha to make a bracelet and he sells the bracelets for 1100 kwacha each,

what is his profit per bracelet?

Ngati Lucius akugwilitila nchito 500 kwacha po panga chibangili, ndipo akugulitsa chi bangilicho pa ntengo wa 1100 kwacha. Ndi phindu lanji lomwe akupeza pachibangili chimozi?

- ☐ 600 MWK (1)
- ☐ 1600 MWK (2)
- ☐ 500 MWK (3)
- ☐ 700 MWK (4)

Q13 Chisomo makes 700 kwacha for every chicken she sells, if she sells 7 chickens in a day, how much has she made?

Chisomo akupeza 700 kwacha pa nkuku iliyonse yomwe akugulitsa, ata gulitsa nkuku 7 pa tsiku, ndi ndalama zingati zomwe angapeze?

- ☐ 700 MWK (1)
- ☐ 707 MWK (2)
- ☐ 4900 MWK (3)
- ☐ 693 MWK (4)

Q14 Which of the following is NOT a variable cost?

Pa zinthu izi ndiziti zili ndi ntengo wosa khazikika?

- ☐ Seed (1)
- ☐ Rent for a stall (2)
- ☐ Labour (3)
- ☐ Fertilizer (4)

Q15 Understanding and focusing on a certain group of people with the most potential to buy your products is called

Kumvetsetsa ndiku chilimika pa gulu la anthu omwe alindi kuthekela kogula katundu wanu lima chedwa kuti chani?

- ☐ Pricing (1)
- ☐ Record Keeping (2)
- ☐ Market Opportunity Analysis (3) **(Kudziwa nsika wamalonda ako)**
- ☐ Start Up Costs (4)

Q16 The most difficult competitor to compete in is one with

Munthu wovutitsa ku pikisana naye pa business ndi?

- ☐ Different products (1)
- ☐ Similar products (2)
- ☐ Lower quality products (3)
- ☐ High quality products (4)

Q17 What is the first step in the consumer decision making process?

Ndi chintu chiti choyamba chomwe munthu wogula katundu amaganizila pofuna ku gula katundu?

- ☐ Evaluating choices (1)
- ☐ Recognizing a need (2)
- ☐ Identifying alternatives (3)
- ☐ Determining consumer satisfaction after using a product (4)

Q18 If you want to borrow money, who can you ask?

Ngati muku funa kubweleka ndalama ndi kuti komwe mungaka funse?

- ☐ A bank (1)
- ☐ Village saving and loan association (2)
- ☐ Family members (3)
- ☐ All of the above (4)

Q19 When asking for a loan, the borrower must consider which of these characteristics?

Mukama funsa ngongola ndalama ndiziti mwa izi zomwe mukuyenela kulingalilapo musana bweleke ndalamazo?

- ☐ The source of the loan (1)
- ☐ Amount of the loan (2)
- ☐ Repayment schedule (3)
- ☐ All of the above (4)

Q20 The cost of a loan is affected by...

Ka bwelekedwe ka ndalama kamakhudzika ndi...

- ☐ Interest rates (1)
- ☐ Loan duration (2)
- ☐ What type of business you are starting (3)
- ☐ Both A and B (4)

Q21 If you take out a loan for 10000 MK and the interest costs 400 MK per month, how much would you owe in total after 4 months?

Ngati mwa ngongola ndalama yo kwanila 10,000 kwacha ndipo yo wonjezela pamwamba nkukhala 400 pa mwezi muza funika ku bweza ndalama zingati pakadutsa miyezi 4?

- ☐ 10400 MWK (1)
- ☐ 11600 MWK (2)
- ☐ 8400 MWK (3)
- ☐ 12000 MWK (4)

Q22 For your business records it's a good idea to

Mu kaundula wanu wa business ndi bwino kuti...

- ☐ Not keep receipts if the transaction was in cash (1)
- ☐ Start immediately (2)
- ☐ Start after one year of business (3)
- ☐ Not record times where you used personal funds for the business (4)

Q23 Which of the following is the most direct benefit to record keeping?

(Mwa izi ndi phindu lanji mungalipeze posunga kaundula wanu wa mabuku?)

- ☐ Accurate financial data (1)
- ☐ Better understanding of your market (2)
- ☐ Good records prevent debt (3)
- ☐ Keeping track of inventory (4)

Q24 Home expenses should be included in your business record keeping

(Ndalama zimene mumagwilitsa nchito pa khomo zizilembedwaso mukawundula wa business)

- ☐ True (1)
- ☐ False (2)

Q25 Which of the following is NOT part of a basic records keeping system for your business?

(Mzinhu izi, ndiziti zomwe zili zofunikila ku sunga mukaundula wanu za business?)

- ☐ Cash inflow (1) **(Ndalama zones zolowa)**
- ☐ Marketing strategy (2) **(Njila zopangila malonda)**
- ☐ Cash outflow (3) **(Ndalama zotuluka mu business)**
- ☐ Inventory records (4) **(Kaundula wa katundu amene mulinaye)**

Appendix V. AEDO Reflection

AEDO Reflection Form: Week 4

Name:

Date:

EPA:

1) What are some examples or ideas your youth had about value addition?

2) Were any topics difficult to explain, if so why?

3) Are your youth able to develop their business plans little by little each week? If not, why not?

4) Do you have any advice for the group this week to help them improve?

5) Were any tips from last weeks 'tips sheet' helpful for you in the field this week?

6) Do you have any other questions or comments? Put them here.

Appendix VI. Research Timeline

Research Timeline	
Event	Date(s)
Initial design and research of technical evidence and methods	December 2015 - March 2016
Preliminary trip to Lilongwe and Blantyre to meet key stakeholders	March 2016
Working districts selected	March 2016
Surveys and knowledge measurement instruments drafted	May 2016
Attain programmatic approval from DAES	June 2016
Surveys and instruments evaluated by DAES agribusiness office	June 2016
Key informant interviews with youth, extension workers, and community leaders	June 2016-July 2016
IRB protocol completed	July 2016
Subjects identified through extension workers	August 2016
Baseline survey	September 2016
Intervention	September 2016 - December 2016
Endline survey	December 2016
Data analysis	January 2017-March 2017

Appendix VII. Costs

Budget Category	Total Amount
Lodging and Food	\$7370.00
Enumerators	\$8483.33
Miscellaneous	\$350.56
Program Expenses	\$2253.58
Enumerator Transport	\$3888.89
Program Transport	\$1041.67
Flight	\$2200.00
Total	\$23388.03

Appendix VIII. Success Story

Building the Agribusiness and Entrepreneurship Capacity of Extension Workers and Youth

In FY15/16 the SANE project engaged with DAES, Lilongwe East district, and Chitsime and Nyanja Extension Planning Areas (EPAs) and their respective Traditional Authorities to determine their interest in jointly conducting an action research activity to stimulate youth to engage with agribusiness in support of the agricultural sector. SANE first met with DAES and the Lilongwe East District Agricultural Office (DAO) to discuss the concept, and to determine the best location for the research. The need for youth entrepreneurial training and increased levels of engagement with existing Young Farmers Clubs in peri-urban Lilongwe areas arose as a priority. This was validated through field meetings and interviews with district- and village-level extension workers, village chiefs, and youth.

The objectives of the activity are to: (1) build the capacity of field-level Agricultural Extension Development Officers (AEDOs) in technical areas (subsequently identified as agribusiness) and to develop their skills in teaching methodologies; (2) to build relevant knowledge and skills in agribusiness and entrepreneurship among youth engaged in agriculture; and (3) to better engage young farmers in the DAESS. Specifically, this action research is intended to determine the potential for:

- Improving the effectiveness of existing extension training materials by utilizing experiential learning approaches that focus on group discussion, engaging audiences with multiple learning methods, and optimizing interactions with farmers outside of the traditional classroom setting;
- Building the necessary competencies for AEDOs to be able to meet their responsibilities to provide quality services through using the experiential learning cycle when engaging with youth groups;
- Utilizing existing bi-weekly EPA-level meetings for in-service training that allows AEDOs to remain updated on promising practices and to develop new teaching skills to reach farmers while leveraging existing financial and human resources;
- Stimulating participation of young farmers in DAESS platforms, as youth are a critical target group that is not presently participating in these platforms, although they could be champions in promoting agricultural practices which meet farmers' needs and protect the physical environment.



Youth present marketable recipes from their nutrition based youth club

A baseline of AEDOs and young farmers participating in the action research, conducted in September 2016, assessed the capacity of participating AEDOs in agribusiness (based on DAES's own Farmer Business School curriculum), the capacity of youth in the same agribusiness topics, and youth perspectives on the DAESS and agricultural employment. Preliminary results show that AEDOs, despite receiving prior training on the FBS curriculum, still have significant capacity gaps in agribusiness (scoring 6.1 out of 10) that can be addressed through the activity. Results among young farmers also showed significant capacity needs (scoring 4.8 out of 10). Youth also expressed high levels of interest in and perceived benefits from the proposed activity and a high desire to better participate in DAESS stakeholder platforms.

Curriculum for the workshops was then drafted based on the Farmer Business School teaching modules but modified, through close collaboration between the Lilongwe East District Agribusiness Specialist and the SANE/UIUC Research Assistant, to structure the content in a weekly format that emphasized group dynamics, participatory classroom approaches, and culturally relevant proverbs and stories conveying content. Results from the baseline survey also allowed specific targeting of topics with the most potential for capacity building.

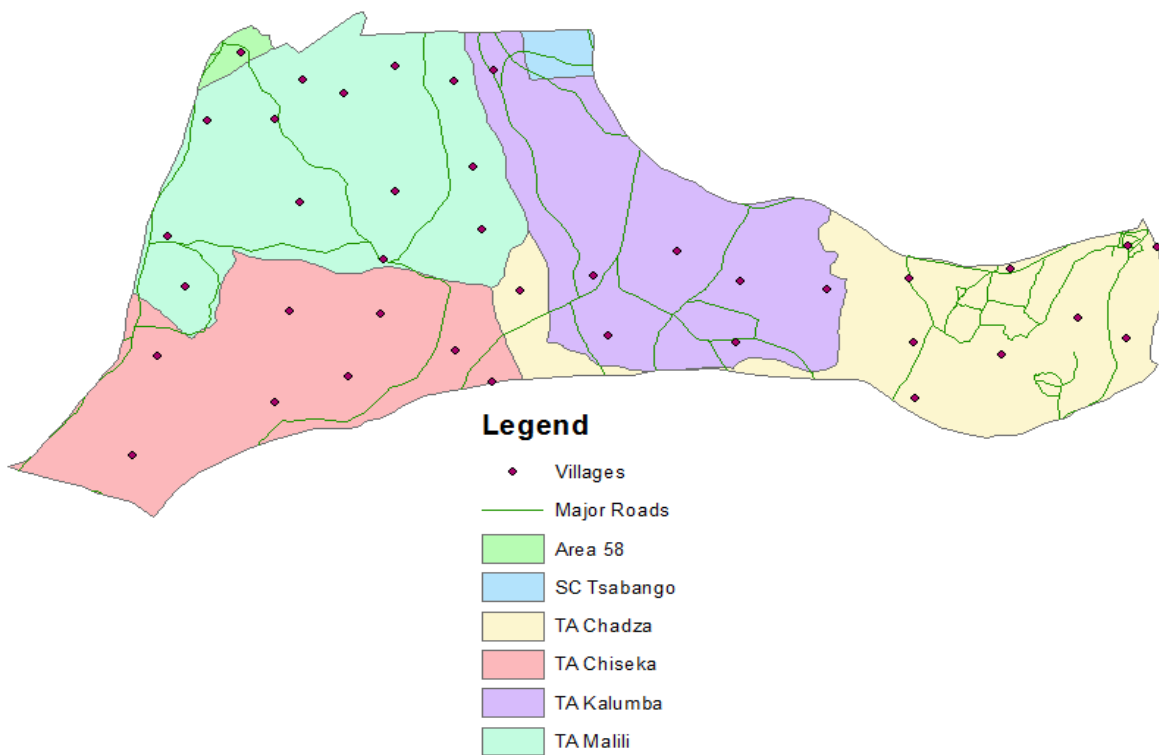
Through collaboration with the DAO and the EPA, SANE next identified an approach to sustainably address resource constraints that limit in-service training at the EPA level by leveraging the existing bi-weekly trainings that occur in all EPAs but have become largely administrative. Utilizing these meetings to deliver in-service training helps maximize the limited financial and human resources within the DAOs. Preliminary information shows that approximately 70% of AEDOs in each EPA attend these meetings, making them a good forum for this capacity building. To further accommodate limited time and resources at the DAO level, SANE encouraged two neighboring EPAs to meet together so that the district-level Agribusiness Specialist could deliver a joint training at a central location.

In Q1, FY16/17, SANE will implement the 10-week agribusiness program to train the participating AEDOs and facilitate their engagement with Young Farmers Clubs. The activity will train 29 AEDOs and enable ~920 youth to build capacity in agribusiness and entrepreneurship, to develop business plans, and to foster entrepreneurial activity. Close monitoring will provide the lessons required in order to be able to recommend to DAES adaptations to the present type of formal and in-service training.

Youth participating in the activity will also be facilitated to participate in local Area Stakeholder Panel (ASPs) meetings, as representatives of their Young Farmers Club, to provide youth perspectives and to present their experiences with the activity. By December 2016, youth will also potentially seek funding through local Village Savings and Loan Associations as well as with partner finance organizations. At the conclusion of workshops, an endline study will be administered to measure changes in knowledge, capacities, and perspectives. Results of the activity will be used by SANE to engage other districts interested in implementing a similar approach.

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Chitsime Extension Planning Area



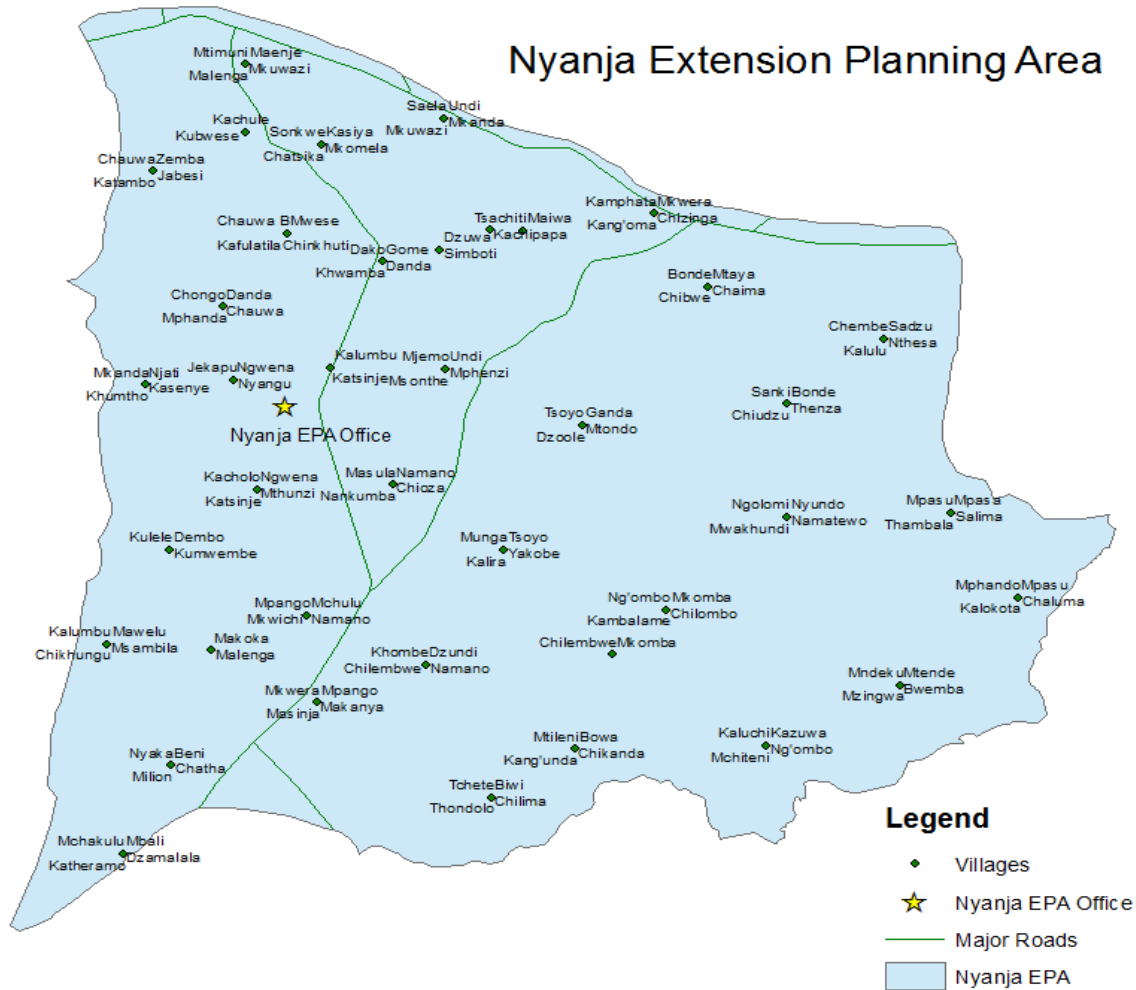
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Strengthening Agricultural & Nutrition Extension



Appendix X. Baseline and Endline Surveys

TOTAL OBSERVATIONS		1061
BASELINE SURVEY	Total Observations	564
	Total Control Group Obs.	273 (48.4%)
	Total Treatment Group Obs.	291 (51.6%)
ENDLINE SURVEY	Total Observations	497
	Total Control Group Obs.	220 (44.3%)
	Total Treatment Group Obs.	277 (55.7%)
	Total Matches (interview of control or treatment participant from baseline)	266 (53.5%) (47.2% of 564 at baseline)
	Total Non-Matches	231 (46.5%)

SURVEY	DEMOGRAPHIC VARIABLE	DESCRIPTION	FREQUENCY	PERCENTAGE OF RESPECTIVE SURVEY
BASELINE	Sex	Male	298	52.8%
		Female	266	47.2%
	Age	10-15	50	9.0%
		16-20	215	38.2%
		20-24	165	29.3%
		25-29	107	19.0%
		30-34	26	4.61%
		35+	0	0%
	Marital Status	Married	241	42.7%
		Unmarried	322	57.2%
	Children	Yes	250	44.3%
		No	311	55.1%
	Received Agricultural Advice in the past 12 months	Yes	259	45.9%
		No	300	53.2%
	Primary advice sources (of those who received advice above)	NGO	31	13.5%
		Private Sector	12	5.2%
		Extension Agents	190	75%
		Other Community Members	24	4.3%
	Livestock assets beyond goats or chickens	Yes	184	32.6%
		No	375	66.5%
	Approximate Family Land Holdings	0 to .5 HA	387	68.6%
		0.5 to 2 HA	132	23.4%
		2 to 5 HA	41	7.3%
		5 to 25 HA	3	.5%
		25+ HA	1	.2%