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



# INGENAES

Stories of success in integrating gender and nutrition within agricultural extension services



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**INGENAES**

Integrating Gender and Nutrition  
within Agricultural Extension Services

# Integrating Gender and Nutrition within Agricultural Extension Services

A United States Government Feed the Future Initiative Project  
September 2014 - September 2018

Written by team members in the INGENAES Consortium

Publication design and technical editing by Katy Mosiman

Cover photo: Introduction to Gender and Nutrition in Extension Workshop, Liberia 2017.

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# Integrating Gender and Nutrition within Agricultural Extension Services

Since INGENAES activities began in September 2014, we have seen exciting achievements in empowering and engaging women and men smallholder farmers through working with pluralistic extension systems in nine countries.

The many, diverse successes came out of **building robust gender-responsive and nutrition-sensitive institutions**, strengthening existing programs and projects to assess and **respond to the needs of both male and female farmers**, identifying proven mechanisms for **providing improved EAS to female farmers**, and **promoting effective tools and approaches**.

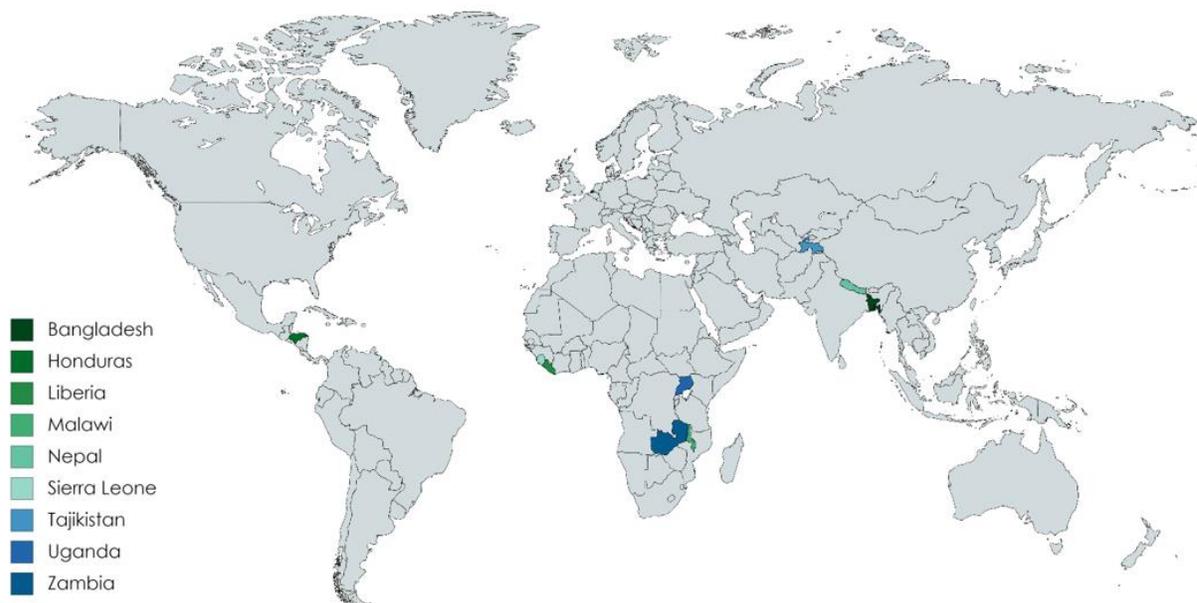
We committed ourselves to building the individual capacity of partner staff, students, university faculty, and community leaders through mentoring and fellowship programs, targeted training workshops and symposia, and open access, research-based knowledge within the gender-nutrition-extension nexus. At the organizational level, we worked with public and private sector extension providers to reform extension curriculum and country-level strategies to reflect greater gender-responsiveness and nutrition sensitivity.

After four years of effort, we see stronger individuals and extension systems that work for both men and women farmers, and we see practices that cultivate the strengths of young professionals and elder community leaders alike. We now share with you some of the inspiring stories that highlight the real people who experienced change through their engagement with INGENAES and our partners. Read on!



# INGENAES Project Basics

- September 2014 – September 2018
- USD \$7 million project funded through Bureau for Food Security of USAID to support the Feed the Future initiative
- Implemented in 9 countries
- Worked with 66 extension service providers applying integrated nutrition and/or gender strategies and/or components
- Trained more than 1600 individuals to increase their gender and nutrition knowledge for change
- Focused on incorporating gender-responsive, nutrition-sensitive approaches in EAS
- Led by a consortium comprised of the University of Illinois at Urbana-Champaign (prime), University of California Davis, University of Florida, and Cultural Practice, LLC



## What We Do

- **Strengthen capacity of institutions** to address gender in a transformative manner and integrate nutrition sensitivity in training, extension, and research
- Apply best practices and develop new approaches to **integrate nutrition sensitive messaging** into agricultural programs
- Conduct action-oriented training and research to assist partner staff and organizations to **implement gender-responsive and/or nutrition sensitive activities**
- Identify and **integrate service delivery mechanisms** that better reach and serve women farmers (e.g., videos)
- Assess how **agricultural technologies** can affect gender dynamics and food security
- **Build or strengthen networks** of individuals and organizations involved in agricultural extension, policy making, and research



Sierra Leone

HIGHER  
INCOMES  
+ BETTER  
OUTCOME

## New Fish Feed Technology Changes Production in Sierra Leone

In Sierra Leone, women fish farmers collect the ingredients for fish feed, mold the mixture into balls, and toss them into ponds. This is food for tilapia, a fish integral to their livelihoods, and they are using a new fish feed formulation introduced by World Fish. The women are responsible for daily care of the fish, but they have limited control over how resources are used; easier access to quality fish feed could open economic opportunities.

This technology is new to Sierra Leone and is geared at increasing agricultural productivity and incomes. However, we must look deeper to understand potential ripple effects on both men and women's lives alike. Do both men and women have access to technologies like these? How do women farmers benefit from them? Do innovative

technologies allow both men and women to increase their incomes?

As part of the Integrating Gender and Nutrition within Agricultural Extension Services (INGENAES) project, Cultural Practice, LLC (CP) developed a methodology to explore the relationship between agricultural technologies and gender issues as a means of understanding the potentially different ways that men and women benefit from innovations. CP also has been providing training to researchers and practitioners on how to apply the methodology. From the inland valley swamps in Sierra Leone to the terraced hilltops of Nepal, researchers and practitioners have used the methodology to examine the ways technologies can respond to men's and women's different needs and lead to higher incomes and healthier outcomes for men and women.

In January 2017, student researchers from Njala University and University of Illinois conducted a series of interviews with men and women fish farmers, agro-input dealers, and extension officers as part of a technology assessment of improved fish feed. WorldFish is now using the findings from the assessment to address gender issues in the project. For example, student researchers identified that women farmers in Tonkolili District were unable to purchase fish feed ingredients because of the distance to input dealers and lack of affordable transportation. Using this finding, WorldFish, under its Scaling up Aquaculture Production Project, is mapping the geographical locations of fish feed input dealers to identify viable transport options for women to overcome this constraint.

While a technology can be designed to easily maneuver a terraced terrain, it might not fit the preferences of men and women. Student researchers from Nepal’s Master in International Cooperation and Development program (MICD) learned that women farmers in Kavre District, Nepal, were not using a small mechanized plow, called a mini-tiller, instead preferring to group together to till the land by hand or pay men to operate the mini-tiller. Women, even with a shortage of men due to migration, were not operating the mini-tiller because of beliefs that women should not plow or were unable to plow as easily as men. With fewer men on farms this meant women’s increasingly busy days and tight

budgets were further constrained by a time-intensive or costly options for tilling.

MICD students using the technology assessment methodology developed ideas to encourage women to use mini-tillers that would make sense in those communities. Sumana Parui, a consultant and engineer working with the International Maize and Wheat Improvement Center to disseminate and train farmers to use the mini-tiller, said the issues raised through the assessment are a “stepping stone for studying the involvement of women with technology ... not only in the rural hilly areas of Nepal but also in other developing countries.”



*Aunty Gladis demonstrating how to make fish feed in Aquaculture Fish Pond in Tonkolilli district.*

“I learned the design of technologies does not always take into consideration context and how technologies will be used by people, both men and women.”

*Colby Silvert, training participant & WorldFish Extension Coordinator in Sierra Leone*

The technology assessment methodology provides a framework that can be applied to understand the potential or emerging opportunities and constraints to men and women benefitting from investments in agricultural technologies. The new “Assessing how Agricultural Technologies can change Gender Dynamics and Food Security Outcomes: A toolkit” developed under INGENAES by CP

outlines a process for understanding how agricultural technologies can be designed and disseminated to reach both men and women farmers. It focuses on three areas of inquiry where agricultural development, technology, and gender issues intersect: time and labor, food availability, and income and assets. The toolkit is a resource that can be used by researchers, project implementers and extension officers to enhance their work and ensure that men and women farmers benefit from higher incomes and healthier outcomes through adoption of agricultural technologies.

The assessment methodology was piloted in Bangladesh, Zambia, Nepal, and Sierra Leone between 2015 and 2017. The pilot consisted of two components: 1) Design and delivery of training materials and 2) Production of technology profiles. Four workshops were delivered with

practitioners and university students (graduate and undergraduate; from both developing countries and the United States) to test the methodology. The workshops also offered insights into the framing and content of this toolkit. During the pilot phase, eleven technology profiles were produced either in conjunction with the workshop or as a separate activity, describing the gender dimensions of technologies such as beehives and digital fat testers to mini-tillers and treadle pumps as well as integrated farming practices related to fish ponds and gardening.

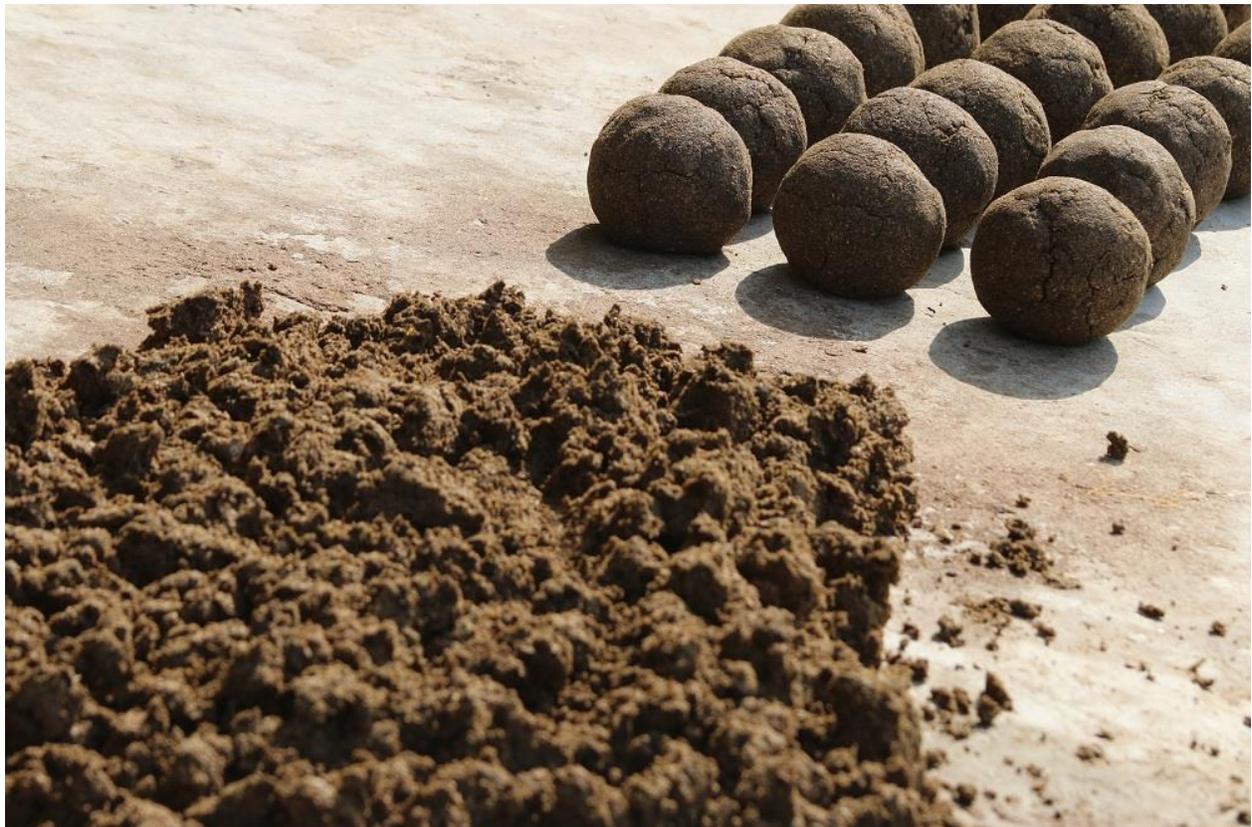
Learn more about the toolkit and technology profiles here:

<http://ingenaes.illinois.edu/technology-toolkit>

*Cover photo: Aunty Gladis demonstrating how to make fish feed in Aquaculture Fish Pond in Tonkolilli district.*

*Story by Colby Silvert.*

*Below: Fish feed balls ready for use.*





Bangladesh

## MARKET CONNECTIONS

### How Evaluation Builds Stronger Households in Rural Bangladesh

Recently, the World Bank reported that agricultural growth and development have contributed to reducing poverty in Bangladesh from 48.9 percent in 2000 to 31.5 percent in 2010. However, high levels of malnutrition remain prevalent in children and women in rural Bangladesh despite considerable reductions in poverty. Many households are not consuming diverse, nutritious diets to sustain their health and the majority of rural households often face seasonal food deprivation without sufficient access to animal and plant-based protein and micronutrient-rich fruits and vegetables.

Gender norms influence many dimensions of smallholder farmers' livelihoods, particularly women's decision-making power, control over household resources, and physical mobility.

Cultural and gender norms influence the amount and distribution of nutritious foods among members of a household, i.e., between women and men, old and young, infants and older children, boys and girls. As a result, even if there is sufficient food within the household, an individual's nutrient requirements may not be met. There is a critical need to address the range and depth of underlying gender-specific constraints to food and nutrition security.

Beginning in 2013, Caritas Bangladesh partnered with Catholic Relief Services (CRS) to implement two pilot projects in poor rural villages in two districts of Bangladesh: the Egiye Jai ("Move Forward") and the Nijera Gori ("We Build it Ourselves") projects. The Integrating Gender and Nutrition within Agricultural Extension

(INGENAES) project, funded by USAID, engaged with these two non-governmental organizations in 2015 to generate rigorous evidence concerning nutrition-agriculture linkages for Egiye Jai and Njera Gori through performing an impact evaluation.

CRS and Caritas aimed to increase the yield of year-round quality homestead production and improve household food security and nutrition through introducing and facilitating agricultural innovation adoption, increasing women farmers' access to extension services, and linking smallholders to markets.

INGENAES, led by the AgReach team at the University of Illinois at Urbana-Champaign, (i) developed survey questionnaires that adequately capture rural households' farm livelihoods and food security and nutritional outcomes; (ii) guided the selection of the control group rural households that did not receive any CRS and Caritas project services; (iii) designed a randomization sampling procedure for rigorous impact evaluation; (iv) trained extension trainers (project directors, monitoring and evaluation officers, animators, and other project-related

staffs); (v) and assessed the impacts whether the projects achieved the objectives through analyzing data. To round out the evaluation process, AgReach disseminated project evidence through various publication channels to reach all those concerned with improving agricultural extension services.

The INGENAES team found that the projects increased beneficiaries' income (on average of 23-25 dollars a month in Egiye Jai and 35-44 dollars a month in Nijera Gori), likelihood of rearing poultry and planting vegetable gardens with more plant varieties, and marketing poultry and vegetables. Additionally, the projects enhanced women's empowerment, as they were more likely to be actively involved in a greater number of community organizations and make decisions on poultry and vegetable marketing. The projects also improved women's access to markets and positively impacted their income and spending on healthcare, education, and transportation. These factors became the means to improving household food security and dietary diversity scores (McNamara et al., 2017a; 2017b).



*Increasing women's access to extension services can greatly improve household food security*

Ultimately, INGENAES's project evaluations enabled CRS and Caritas to prove whether the intervention strategies successfully addressed the needs of the poor and understand how and to what extent the projects affected the households. In addition, strengthened research components in the projects enhanced the implementers' capacities to successfully operate, and manage the extension projects, as well as deliver robust evidence for contemporary issues. Specifically, two joint action-oriented research and learning workshops (held in Dinajpur district and Dhaka in Bangladesh between 2016 and 2017) concentrated on the linkages between a project's extension services and beneficiaries' income, health, food security, and nutritional outcomes. Workshop participants also clarified what the suitable roles of extension workers are and explored ways to

overcome a variety of challenges for project implementation, agriculture, and rural development.

Through a program called the "Sustainable Food and Livelihood Security Project Phase II" (SuFoL II), CRS and Caritas are currently expanding their projects to the national level. They are using evidence found through INGENAES's impact evaluation to adjust program design and implementation to better suit the needs of rural households in Bangladesh. SuFoL II, which began in January 2017, aims to reach 10,000 households (approx. 54,000 individuals) in 48 vulnerable rural villages in six districts including Barisal, Chittagong, Dinajpur, Khulna, Rajshahi, and Mymensingh.

*Cover photo: Market in Dinajpur district.*

*Story by Han Bum Lee and Katy Mosiman*



The projects enhanced women's empowerment, as they were more likely to be actively involved in a greater number of community organizations and make decisions on poultry and vegetable marketing.



Sierra Leone

## GROWING TO LEAD

### Sierra Leonean Youth Tackle Gender Gaps in Agriculture

As a young girl in Sierra Leone, Yeanoh Dumbuya wanted to know why so many people were malnourished. Her drive for answers led her to continue her studies and focus on nutrition at Njala University where she discovered more about how agricultural production can impact nutrition. She understands that “It is only when our farmers are ready to produce enough nutritious foods that people will be healthier in Sierra Leone.”

At a young age Yeanoh also began to think about gender inequalities in agriculture, specifically when it comes to the perception that men dominate farming in Sierra Leone. “When people think that agriculture here is for men, they need to really think about how involved women are - maybe more than the men.” These gender gaps, Yeanoh

says, negatively affect access to nutritious foods. Women often have less decision-making power concerning spending and food allocation within the household, which can lead to malnourishment.

In 2016, USAID increased its efforts to level the playing field for women and men farmers in Sierra Leone when the Integrating Gender and Nutrition within Agricultural Extension Services (INGENAES) project partnered with WorldFish. Compared to men in the country, women still have less access to educational opportunities, and while women make up much of the farming workforce, they often struggle to access land. In rural households, males are commonly given the most protein while young girls receive very little. INGENAES and WorldFish are bringing youth and

young women like Yeanoh to the forefront to tackle these gender gaps.

Today, Yeanoh is a field agent specializing in nutrition with WorldFish for the Scaling up Aquaculture Production Project funded by USAID and has become involved in overlapping activities with the partnering project, Integrating Gender and Nutrition within Agricultural Extension Services (INGENAES). In her daily work, she promotes sustainable fish farming as a business for households to raise incomes and improve nutrition. Fish farming also increases access to animal protein to help reduce the prevalence of malnutrition in rural households.

Collaborating with schools, universities and in communities, INGENAES and WorldFish have worked with over 300 Sierra Leonean students and youths since 2016 to raise awareness in the country about gender gaps in agriculture and their impacts on nutrition. For one activity, students assessed an on-farm produced fish feed technology promoted by WorldFish to uncover its impacts on gender and nutrition outcomes. The assessment helped the project improve efforts to introduce the fish feed to women and men farmers as WorldFish scales it up the over the next two years.

Besides the technology assessment, Yeanoh has participated in activities with INGENAES at the field level working with fish farmers, she has

spoken to a countrywide community of practice for gender and nutrition strengthening in agricultural extension, and she has worked with primary school students on fish farming and vegetable production, integrating gender and nutrition learning activities. She claims she has learned to focus on building relationships with farmers in the field to involve both men and women. “You will even find that young men farmers respect you more, as a woman professional with knowledge of agriculture, and then they listen to you.”

Now Yeanoh wants to inspire other young women to enter the agriculture sector to continue closing gender gaps and improving agricultural productivity and nutrition for all farmers in Sierra Leone. “Young women avoid studying agriculture or consider it a field for men, but we are seeing successful women changing agriculture for the better all over the world. And we need women professionals in this field to bring together more people and help more farmers”

Based on her experiences, Yeanoh believes that INGENAES and WorldFish should continue empowering youths as gender and nutrition change makers. “Youth are interested and open to learning about this. They want to be involved and with them this work will continue.”

*Cover photo: Yeanoh teaches Tonkili school children.  
Story by Colby Silvert.*



*Yeanoh teaches students from Tonkolili district how to plant sweet potato vines.*



*Yeanoh shows an example of tilapia being harvested by a farmer group she advises.*



*Yeanoh leads a learning activity on vegetables and fish for improved nutrition.*



*Yeanoh receives a certificate for her completion of the 3-day gender and nutrition workshop*



Uganda

# EQUIPPED FOR THE FUTURE

## Young Professionals on Board to Support Nutrition Security

First, the women roast the soybeans over a low fire. Next, they blend them with roasted millet and sesame seeds, and finally cook the mixture into a fortifying meal. All of these women are mothers from two rural districts in Uganda working with Dorcus Alowo, a graduate student at Gulu University who studies food science and human nutrition. Once the porridge is ready to eat, Dorcus tests how the mothers react to the smell, taste, and texture of the dish.



*Dorcus Alowo, graduate student at Gulu University*

Dorcus is using traditional preparation and processing methods, as well as foods locally available in the districts to develop a nutrient-packed formula for porridge. If it becomes popular, it will help combat malnutrition in rural households. Though still in the preliminary stages of developing the porridge, she hopes this research will lead to improved nutrition and food security.

Last year, Dorcus did not have the funds to continue her research even though she was a stellar student in her class. INGENAES came in at the right time and agreed to fund another year of her research and provide resources to see it through to completion, offering her a place in the INGENAES Fellowship Program. As part of the fellowship program, eleven graduate-level fellows receive a year's worth of education and research funding. They have also had the opportunity to be involved in several activities INGENAES is engaged with in Uganda. The fellowship program is developing the capacity of

young professionals like Dorcus by helping them integrate gender and nutrition extension into their graduate level research on food security-related topics. INGENAES has been instrumental in giving Dorcus and her peers' access to the latest content and relevant learning material on gender and nutrition in agriculture.

Dorcus has been a very active participant in these activities; she grabbed every opportunity to attend several farmer-based organization (FBO) trainings, where she learned about options for integrating gender and nutrition into agricultural development programs. Dorcus even represented the fellows at an FBO-focused Write Shop in July 2017, where she worked with a team of experts to create gender and nutrition training materials for FBOs.

Besides the hands-on experience with the mothers, having solid knowledge on nutrition and gender dynamics in rural households and connecting her work to organization actively engaged in nutrition and extension in Uganda is key to making her formula work for rural household nutrition security.

Like many of the fellows, Dorcus has also been an active participant in the INGENAES Community of Practice meetings where she learns

“I don’t think I am the same nutritionist I was: you bring in gender, you bring in extension, now I am multi-talented.”  
Dorcus Alowo

from and interacts with a broad range of stakeholders such as NGOs, Public Sector officials, Donors, and Private Sector actors involved in food security and agricultural extension. Through all of this, she explained, “I don’t think I am the same nutritionist I was: you bring in gender, you bring in extension, now I am multi-talented.”

In this manner, the INGENAES fellowship program is equipping the next generation of Ugandan students with the professional and technical skills to become tomorrow’s leaders within the areas of agricultural extension, gender, and nutrition development.

Cover photo: INGENAES Fellows at the Fellowship Orientation in 2016.

Story written by Katy Mosiman and Maria Jones.



Left: Dorcus is certified in a gender and nutrition training course. Right: Mothers weigh and sort grain to add to porridge.



## Harmonizing Nutrition Messages for Zambian Households

Naomi has three children under five. Now 20 years old, Naomi started her family while other girls her age were starting secondary school. While living with her children and their father in rural Zambia, Naomi participates in several nutrition, agriculture, and women empowerment projects that target young families like hers. One project recommends that she feed her children foods from four of seven food groups, while another says her children should eat foods from three of three food groups every day.

Naomi wakes up before dawn, works all day long in the fields and around her home, and often cannot provide her family with enough maize. They often still go to bed hungry. Like most rural Zambians, foods other than maize are a rare luxury, and the inconsistent messages people get from projects make proper nutrition choices seem even less attainable.

In the absence of national policy related to nutrition-sensitive agriculture, INGENAES brought together organizations implementing nutrition-sensitive agriculture to address the potential confusion caused by variations in nutrition messaging. Nutrition-sensitive agriculture seeks to enhance agriculture's contribution to nutrition and promises to improve the dietary diversity of Zambians, effectively reducing childhood stunting. Government and donor commitment to the Scaling Up Nutrition movement spurred the government to act, so under the First 1,000 Most Critical Days Program (MCDP), the Ministry of Agriculture aims to make sufficient, high-quality food available and accessible for diversified, healthy diets.

Zambia does not have a set of Food Based Dietary Guidelines, which could serve as a policy and educational tool for national food and nutrition priorities. However, the MCDP developed a list of

priority actions that are essential to achieving better nutrition during the 1,000 days from a child's conception through the first two years of life. Although planners hoped that agricultural extension services would help promote these actions, they do not align with their regular duties.

Who is in charge of what? The vitamin A supplementation guideline falls under the responsibility of health professionals, but diversifying production to address market opportunities and household consumption needs are agricultural extensionists' responsibilities.

Through a process of workshops and consultations, the Ministry of Agriculture and INGENAES sought to determine and clarify what tailored messages could increase the impact of agriculture on household nutrition. INGENAES gathered representatives from the public, private and NGO sectors to ensure messages aligned with the Ministry's "Food and Nutrition Section Operational Guidelines" as well as global recommendations for improving nutrition through agriculture.

INGENAES tested the messages with different audiences and clarified the language so that anyone from extension officers to farming households would understand the messages. In the end, collaborators prioritized five core messages accompanied by detailed descriptions and

illustrative small steps that households can take to adopt the recommended practices.

The five messages now appear in the Planning and Resource Guide for Agricultural Extension Officers, which is an annual publication that extensionists turn to for information on agriculture production and participatory extension. The resource helps them plan daily activities and guides supervisors in monitoring and supporting their staff.

The collaboration between INGENAES and the Ministry collaboration goes beyond the messaging improvement, with basic nutrition content now taught in the preservice training of future extensionists. The Ministry's eleven Agricultural Technical Institutes train future agricultural practitioners, and the integrated nutrition training will further equip future extension professionals to promote practices that support nutrition. By building the capacity of government actors to establish nutrition-sensitive agriculture actions and equipping the next generation of extensionists with skills to make food systems more nutrition-sensitive, Naomi and others will receive accurate information they can act on to eat right and grow strong. (Chilufya, W. 2015) (FAO 2015).

*Cover photo: Women prepare sweet potatoes at a cooking demonstration.*

*Story written by Edye Kuyper.*



*Women and men prepare a nutritious meal at a cooking demonstration in their village.*



## Empowering Bangladeshi Researchers through Innovative Methods

Twenty-seven master's students entered the conference room at Bangladesh Agricultural University (BAU) with anticipation. A few students knew what to expect, while the rest hoped their ability to learn quickly would help them thrive over the next few weeks. They were here in the Department of Agricultural Economics and Rural Sociology to work with a team of researchers led by a University of Florida doctoral candidate, Kelly Davidson. During the research process, the students would learn novel methods in behavioral and experimental economics, increase their understanding of food-based nutrition, and gain valuable skills for future employment. Though only a few of these students (from two different universities in Bangladesh) had been hired as data collectors on previous INGENAES projects, all were eager to learn

about data collection and gain field experience for the first time.

Seven days later, they each completed INGENAES's weeklong field training and took on the professional role of data collector, or enumerator, on the INGENAES "food plate" research project. The study would measure the impact of two different nutrition interventions in Bangladesh by testing 1) the SHIKHA project food plate and 2) participatory training on nutrition and the intra-household allocation of food. The SHIKHA food plate was originally designed by FHI360 with the support of the Food and Agriculture Organization of the United Nations, BRAC, and the United States Agency for International Development. It is a melamine plate printed with pictures of local food items and

messages that encourage dietary diversity. The images suggest reducing the amount of rice and adding more vegetables and protein.

To measure the impact of the plate and training interventions, 1,200 study participants were invited to dine at a lunch buffet on two occasions, where the students discreetly recorded their food choices. Some of the participants dined using a regular plate, while others served themselves on the SHIKHA food plate.



*Enumerators attend training on the SHIKHA Food Plate's nutrition breakdown.*

The nature of the research required students to work as data recorders while acting as event coordinators and catering staff, all while observing participants' food choices during the two lunch buffets. At each meal, six students managed the set-up and implementation of the buffet and meal observation. Many of the study participants had never been to a buffet, so in addition to recording food choices, the enumerators were tasked with explaining the process, engaging with the participants to make them feel comfortable, and encouraging them to eat as much as they would like.

Because this was a randomized controlled trial experiment, the students learned the importance of standardized research processes and project management. The weeklong training had prepared the enumerators by engaging them in

discussions about nutrients and food group classification, role-play activities to understand behavior, and agricultural production.



*SHIKHA Food Plate with buffet items.*

The students offered critical feedback about key crops produced in the regions of interest, local food items commonly consumed, and cultural sensitivities for approaching households to collect survey data throughout the process. In this way, the training process was as much a capacity building opportunity as it was an exchange of collaborative ideas to improve the research, with researchers learning from the students and vice versa. After completing training, students collected survey data at the buffet and in the field using electronic tablets – a first experience for all. Shaon, a master's student at BAU who took part in the pilot design, training, and data collection, said, *"I felt empowered as an enumerator ... I can employ this experience in my own research."*

While the students arguably experienced the most capacity building, INGENAES also engaged with faculty and staff from the universities, BAU Extension Center, Suhsilan, and the Bangladesh Institute for ICT Development in an effort to strengthen connections across the institutions and develop their skills in project management, research design, and coordination. Being involved in the project on the organizational and

implementation side meant professional development in the truest sense as they engaged with community members, strengthened their project management skills, managed budgets, and perfected their training techniques.

The research would not have been possible without the support of all of these individuals. By bringing together this multidisciplinary, multi-agency team, this project developed the capacity of current and future researchers while directly engaging with and strengthening institutions in Bangladesh. At the same time, INGENAES supported and facilitated evidence-based

research investigating the effectiveness of nutrition-sensitive approaches and tools for engaging men and women. The project served as a unique platform to build capacity and bring together a number of institutions working for a common cause.

*Cover photo: Researchers ready to observe meal choices at the buffet.*

*Story written by Kelly Davidson and Katy Mosiman.*

*Note: The research will be published in early 2018 as a peer-reviewed journal article. For further information, contact Dr. Davidson at [kelly.davidson@ufl.edu](mailto:kelly.davidson@ufl.edu)*



## Farmer Groups Value Sharing and Investing in Their Own Tools

When the concept of fish farming as a business was introduced to farmers in rural areas of Tonkolili District, Sierra Leone by the USAID funded Feed the Future Scaling up Aquaculture Production (SAP) project, farmers asked for free tools to help them construct their fish ponds. This was not unexpected as agricultural development projects had provided free resources in the past, thus stunting farmers' capacities to innovate and come up with solutions to solve the challenges they face using their own initiatives.

Unprecedented circumstances have hampered long-term development in Sierra Leone, most notably the Civil War that ended in 2002 and the Ebola disease endemic of 2014. These crises

ravaged entire communities and stunted agricultural production across the country. Over half of the population of Sierra Leone is self-employed through agriculture, and in response to the War and Ebola disease epidemic, rural development efforts have been largely relief- and emergency aid-focused, providing free inputs and tools to farmers.

While fish farming was first introduced in Sierra Leone over 30 years ago, it has largely remained limited to farming fish in small ponds, resulting in low productivity of the system. The SAP project is testing a pro-poor aquaculture business model to determine if fish farming can become a viable enterprise for smallholder farmers. The model has

a strong capacity development component that works with farmers to build their skills to construct larger and more productive ponds, use higher-quality fish feed and inputs, and practice good monitoring and management of pond water conditions. The model also acknowledges that fish farmers in this context have little or no access to microfinance, and thus, is also testing the feasibility of linking farmers to financial institutions in order for them to purchase the necessary inputs to farm fish as a business.

Mamusu Conteh of Makrugba Village in Tonkolili District was first exposed to fish farming by United States Peace Corps volunteers in the 1970s. She says that now, with the strong technical support and business and pond management skills training from the SAP project, her fish are growing like never before, “because we have been trained to feed and manage properly.”



*Above: Fish farmers in Manasi receive savings boxes for tool contributions to repair existing tools and purchase new ones.*

Under the SAP project, households with individual ponds are organized into cluster groups, and are

not given money and free tools and inputs to invest in fish farming. Instead, they are provided technical support, and farmer clusters are finding solutions collectively to overcome barriers to begin fish farming for business.

When farmers constantly said they needed tools to begin constructing ponds, the SAP and Integrating Gender and Nutrition within Agricultural Extension projects teamed up to develop and test a new extension innovation, the Cluster Group Tool Bank. After many NGOs and previous projects have provided free tools for farmers, the Tool Bank supports farmers to sustainably use their limited resources to pool existing tools in the community, then contribute small amounts decided by the farmers for using the tools during pond construction. Over time funds saved in a box with two locks, each kept with a leader farmer, can be used by the group to purchase new tools or repair existing tools.

Mamusu sees benefit in being able to repair tools, “in the past when tools were damaged, we threw them away, but now with a tool bank, we can repair our tools using the money we save.” She also says that during the establishment of the tool bank, farmers in her group set policies to ensure the use of and decisions made about tools were gender equitable. “We decided that both women and men farmers should play equal roles in monitoring the tool bank, and they should share opportunities to use the tools when they pay the deposit.”

In just four months since a tool bank was established in Makrugba farmers have contributed 479,000 Leones towards purchasing tools and have pooled 33 tools to construct 16 fish ponds. The farmers own and manage the tool bank, and they make decisions to adapt and improve the innovation.

Fish farmer and teacher in Makrugba, Alimamy Conteh, believes that the tool bank is more sustainable than farmers receiving tools for free. “If the tools are only given to us, we will not value

them. But if the tools are purchased with our own money, we will take them seriously, and we will not let them spoil.”

Across Tonkolili District in Sierra Leone, farmers have set up 9 Cluster Group Tool Banks, and have together pooled 159 tools and contributed 990,000 Leones in saving funds for tools. As the SAP project expands to engage more smallholders in fish farming as a business, the Cluster Group Tool Bank aims to shift the expectation of being handed free tools by projects into an opportunity for farmers to collectively purchase, pool, and rent their own tools.

Alimamy already has one suggestion for his Makrugba Tool Bank to improve, “to increase the amounts contributed so we are able to buy even more tools.” With tools, more ponds can be constructed, and farmers can realize higher profits from fish farming to support their families.

*Below SAP Extension Agent Sheka Sesay facilitates the establishment of a tool bank with farmers in Makrugba, Tonkolili.*

*Cover photo and collage: Farmers in the Mabbaf Fish Farmer Cluster Group construct a pond using Tool Bank tools.*

*Story written by Colby Silvert.*





## Young Professionals in Nepal Rise Up as the Next Leaders in Agriculture

“My name is Nikita Bhusal and I am from a small and beautiful Himalayan country, Nepal. I feel very proud to be one of the beneficiaries of INGENAES in Nepal.” Nikita currently works as the Communications Focal Point with Young Professionals for Agricultural Development (YPARD) in Nepal after completing her undergraduate studies in Food and Dairy Technology in 2016.

After learning of the INGENAES project over a year ago, Nikita immediately decided to join the gender and nutrition strengthening activities in Nepal. Being a young professional with a focus on and passion for food and nutrition, Nikita jumped at the chance to build up her soft skills in communication, project management, and

interpersonal relationships by engaging with INGENAES.

In July 2016, Nikita attended her first workshop with INGENAES, on organizational capacity building for integrating gender and nutrition within agricultural extension services, facilitated by Dr. Muthusami Kumaran in Kathmandu, Nepal. This three-and-a-half day workshop was great exposure to learning about organizational structure, planning a project and program, and developing relationships with partners. It also served as a platform to learn more about agricultural extension services and to connect with different non-governmental organizations in Nepal.

YPARD Nepal has since built a very strong relationship with INGENAES given their shared objective of providing opportunities for young

professionals in agriculture. Many Nepalese young professionals equally benefitted from INGENAES capacity building efforts, like identifying best practices on how to integrate nutrition into trainings, agricultural market development, and suitable communication approaches.



*YPARD Nepal participants (Nikita center), with facilitator Dr. Muthusami Kumaran in workshop entitled “Organizational Capacity Building Training for INGENAES partner NGOs.*

In March 2017, a delegation from YPARD Nepal participated in the [Regional Symposium](#) on Integrating Gender and Nutrition in Agriculture

Extension held in Dhaka, Bangladesh. They presented YPARD Nepal’s work entitled [“Promoting Food and Nutritional Values among Nepalese Young Minds,”](#) where they discussed the importance of underutilized food crops, food processing methods, food and dairy entrepreneurship, and the initiative for school nutrition clubs. The symposium was the best place to learn about nutrition and gender integration in agricultural extension to improve in nutrition and livelihood outcomes, with different scientists and researchers sharing knowledge.

“Words are insufficient to describe the learning opportunities that I have received from INGENAES, though I am not the only person from YPARD Nepal, but many of my colleagues have told similar accounts [\[here\]](#) and [\[here\]](#). It has grown my communication skills personally and professionally. The formal and informal meetings, workshops, website-accessible material, and the network of expertise that I have encountered through INGENAES are great sources of knowledge. Thank you INGENAES.”

*Cover photo: YPARD members finish a communication skills workshop with Dr. Lulu Rodriguez in 2017.*

*Story written by Nikita Bhusal and Katy Mosiman.*



## Tackling Machismo through New Perspectives

In many Latin American countries “machismo” customs and traditions convey a sense of supremacy of men over women, which leads to minimizing or downplaying the rights of women and girls. Machismo culture often limits the ability of women (and men) to participate in a more equitable social and family environment. Extension agents – the majority of whom in Honduras are male – experience the effects of machismo in their daily work, with fewer women attending agricultural trainings or able to make decisions regarding the use of income from agricultural sales. The INGENAES team and its partners are out to tackle this mindset to improve opportunities for both men and women.

Creating an environment of trust and openness is vital when trying to motivate behavior change around a longstanding and potentially sensitive topic. This requires understanding the context as well as the needs of the learners; in this case, the learners are field-based extension workers

positioned in indigenous communities. To help participants relax, have fun, and be more willing to engage deeply in conversations that challenge long held belief systems, [INGENAES workshops](#) use interactive, sense-stimulating exercises that involve drawing, roleplaying, and creating songs.

In a typical household, gender roles are often quite fixed based on cultural norms. INGENAES has created an exercise that allows participants to experience what it is like to be the opposite sex, including their responsibilities, burdens and frustrations. This looks different in every cultural context, but usually men will indicate that they never realized their wives worked so hard, and how many competing responsibilities they juggle every day.

The INGENAES team in Honduras created a series of materials and workshops that engaged over 100 participants in “[Integrating Family Dynamics into Agricultural Activities.](#)” Each workshop welcomed very different types of participants, from

universities to NGOs to government and private sector extension providers. All joined with other practitioners in a two-day workshop designed to provide practical, action-oriented tools and exercises that promote gender equity and nutrition sensitivity.

To assess their knowledge and skills in integrating gender into extension programming, all workshop participants received a pre and post evaluation. Three out of four workshops posted a 30% gain in knowledge and skills, with the second workshop posting a 16% gain. Workshop participants were asked to identify key insights or new learnings from having participated in the workshops.

In the sessions on integrating gender and nutrition, participants said they:

*“Learned how to more effectively incorporate gender and nutrition within current agricultural programming”*

*“Understood the importance of shared labor and responsibilities within the rural household and the value of the role women play in the family”*

*“Realized the male dominance within the household and community and understood family dynamics as a pathway to understanding gender dynamics”*

*“Appreciated knowing about the limitations facing them as women with respect to life in a machista culture and eradicating the thought that women cannot do things well – the important thing is to involve women in every type of work – they can do it”*

In the sessions related to sharing knowledge with farmers, participants said they:

*“Learned how to engage farmer groups and extension agents in trainings on gender and nutrition through the use of participatory, dynamic, and interactive educational techniques”*

*“Learned how to use these exercises with producers so they can be bringers of change for themselves and their families”*

*“Learned ways of making the groups active during capacitation, you (the facilitator) learn a lot because you are also participating”*



*Role-play commences*

As a follow up to the workshops, the INGENAES team in Honduras has been working with Zamorano, the Pan American Agricultural University, to integrate practical aspects of gender and nutrition into the existing agricultural curricula for students who will be working with small farmers in Latin America. An exciting development associated with the workshop that occurred at Zamorano, arose when stakeholders discussed ways of expanding the reach of these materials to even younger audiences who will be working directly with smallholder farmers at a “técnico” level (extension workers).

The Government of Honduras, through the Office of Economic Development, is currently launching new curricula with Zamorano on practical extension approaches for agriculture, which they expect will strengthen the capacity of both young and more mature extensionists. The intention is to include materials generated by INGENAES on integrating gender and nutrition into this new curricula, which will help extend the reach of INGENAES beyond the project life.

*Cover photo: Zamorano students after the gender and nutrition workshop.*

*Story written by Katy Mosiman and Kathleen Colverson.*



## Uganda Farmer Based Organizations Incorporate Gender and Nutrition within Business Enterprises

INGENAES works within 20 different districts throughout Uganda, providing technical assistance to 30 Farmer Based Organizations (collectively referred to as 'FBOs') to build the capacity of private-sector agricultural extension. INGENAES helps integrate gender and nutrition awareness/education within existing extension services and agro-enterprise initiatives. By targeting already established and financially sustainable private-sector extension, INGENAES works directly with smallholder farmers through what it terms 'lean extension': as private sector extension providers, FBOs play a critical – though non-governmental – role in providing access to agricultural inputs, market creation, and advisory services. In short, FBOs provide a robust and responsive platform to reach smallholder farmers due to their existing function as an aggregation

center for farmers and proximity to outlying areas.

In Uganda, women comprise a substantial percentage of many FBO's membership base, yet culturally do not share an equal role in decision-making or leadership positions within these organizations. Much of this stems from a lack of awareness within the organizations, as FBOs fail to take into consideration both gender and nutrition issues when developing their extension approaches and business enterprise models. This is partly because they do not clearly understand the dependent relationship between the empowerment of women farmers and improved household incomes, and partly because the organizations lack the capacity to identify and develop nutrition sensitive value chains that

improve the nutritional wellbeing of their farmers while also maintaining profits.

INGENAES is working to change that in Uganda by aligning its efforts with local partners to build capacity and provide technical assistance to the 30 above-mentioned FBOs, which in turn directly serve roughly 100,000 members. Tororo District Farmers Association (TODIFA) in Eastern Uganda is one such FBO that took part in the INGENAES trainings and subsequently reported developmental impacts in the areas of improved household incomes, overall family nutritional health, and gender integration at the household and organizational levels.

Following the INGENAES training, Isaac Bwayo, Technical Officer for Tororo District Farmers Association (TODIFA), was convinced of the value of integrating gender and nutrition into TODIFA's programming. As technical lead, he persuaded the TODIFA leadership to submit a proposal to the African Forum for Agricultural Advisory Services (AFAAS) in order to seek the funding needed to mobilize and sensitize the Tororo community on gender and nutrition. This included equipping and training 50 Farmer Trainers across two districts and the planting of 100 kitchen garden demonstration plots. In July 2017, TODIFA received a grant from AFAAS and immediately set to work.

Mr. Bwayo stated, "Because of the [INGENAES] trainings, I knew we had to do something to reach more of our members with what we learned, but we didn't have the funds to do anything on a large scale. Thanks to the grant we were finally able to do that."

INGENAES Uganda Field Coordinator Amber Martin has been assisting TODIFA on multiple technical aspects of kitchen gardens, including

which varieties and combination of crops to grow for a nutritionally complete diet. Pursuant with that aim, INGENAES also helped to connect TODIFA with local distributors like Harvest Plus to purchase familiar, yet more nutritionally dense crop varieties, such as Vitamin A Orange Fleshed Sweet Potatoes (OFSP) for a source of carbohydrates and vitamin A, and iron-enriched beans as an affordable source of protein with the added benefit of much needed iron. To date, TODIFA has purchased and planted 200 bags of OFSP vine cuttings, 200 kilograms of iron-enriched beans, and five kilograms of kale seed to be split amongst its 100 kitchen garden demos.

*The demos have sparked a lot of interest and conversations about nutrition, especially when we explain the purpose each one serves. And that's what we wanted to do – get more people talking about nutrition... [And] the women too have been empowered by having more control over profits that the village savings groups are very active now.*

- Isaac Bwayo

Upon following up with Mr. Bwayo six months later, he happily reported that TODIFA's board was now employing gender-responsive practices. The kitchen garden demos were so successful that women reported having enough OFSP and kale (one of the most nutritionally dense leafy greens) to sell the excess and cover other household expenses, such as school fees. He went on to state that people actually preferred the vitamin A sweet potatoes so much, due to their sweetness, that people from the community requested to buy vine cuttings, which opened up another revenue source for the group.

*Cover photo: FBOs embrace women as key members and partners in business.*

*Story written by Amber Martin and Maria Jones*



Zambia

## A DIFFERENT STRATEGY

### **Integrating Gender and Nutrition within the Zambia National Agricultural Extension and Advisory Services Strategy**

The 6 million people working in Zambia's agriculture sector gain key support to succeed in farming with access to a well-rounded extension system. Agriculture accounts for up to 85% of Zambia's workforce and is the main source of livelihood for rural people, of which 77% are poor, so an encompassing, well-functioning extension system is necessary to improve their lives.

The Zambian government recognizes the need to establish a pluralistic agricultural extension system that serves the needs of both men and women and improved nutrition for everyone. Most farmers are scattered over great distances across the rural landscape, and many of them are smallholder or subsistence farmers who would benefit from quality agricultural extension services that are responsive

to their needs and help them attain food and nutrition security. The government therefore engaged with INGENAES (Integrating Gender and Nutrition within Agricultural Extension Services) to advance a gender-responsive and nutrition sensitive National Agricultural Extension and Advisory Services Strategy (NAESS), which Zambia officially launched on March 10, 2017.

This strategy, four years in the making, is a major step towards achieving food and nutrition security and helping Zambians rise out of poverty. INGENAES was privileged to assist in the development of a more gender-responsive and nutrition-sensitive extension strategy alongside the Ministry of Agriculture and the Zambian Forum for Agricultural Extension and Advisory Services

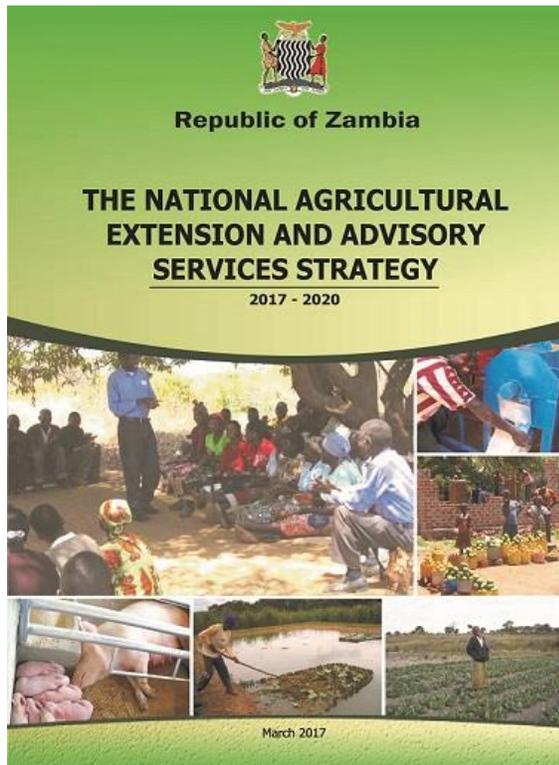
(ZAFSAAS). ZAFSAAS, a multi-stakeholder body for professionalizing extension services in Zambia that INGENAES helped to establish, played a critical role in organizing and integrating stakeholder feedback for the final strategy. INGENAES also provided direct technical input to the NAESS draft and worked closely with its authors to ensure that gender and nutrition were fully included in the strategy.

Integrating gender and nutrition into a national strategy is a lengthy consultative process to ensure it appropriately reflects the context and has widespread support. The process cannot just include the government and requires other stakeholder involvement. A strategy that will influence the work across a spectrum of stakeholders requires validation by those involved in its implementation at all levels, from front-line implementers to those drafting policy.

After many consultations, stakeholder workshops, and validation processes supported from all levels of extension, the extension strategy ultimately reflects Zambia’s mission to address limitations on gender and nutrition components in public and private extension, like hiring more women extension workers and including nutrition education components in extension materials. In



Stakeholders at a NAESS meeting in July 2016



Cover of the NAESS document

fact, Objective 13 “Mainstreaming Gender into Extension and Advisory Services” and Objective 15 “Mainstreaming Nutrition into Extension and Advisory Services” are direct results of INGENAES’s contributions to the extension strategy, helping ensure it is forward-looking and positions Zambia to be a leader on gender and nutrition issues in extension.

Through its support to the development of the national extension strategy, INGENAES has helped lay the foundation for a more inclusive extension system able to better support agricultural and nutrition improvements among women and men farmers.

Cover photo: Agri-inputs shop owner, Nelia, speaks about her experience as a woman business owner in rural Zambia.

Story written by Wesley Laytham, Edye Kuyper, and Katy Mosiman



Bangladesh

# BEYOND THE TRAINING

## Extensionists Adapt INGENAES Gender and Nutrition Training to Fieldwork

In the remote Tharu community that extensionist Rajendra Choudhary serves, women typically wake up at 4 am to begin their day. They will generally continue working nonstop until 10 pm seven days a week, while a typical man will work seasonally to produce cereal crops and take advantage of his free time by playing cards instead of helping with women’s tasks. As this characteristic workload balance attests, Rajendra confirms that gender inequity is a challenging issue for this rural community.

Recently, Rajendra made an effort to facilitate greater understanding and open the dialogue about gender and nutrition challenges within the community by using training techniques he learned at an INGENAES workshop. Rajendra used four INGENAES activities from the workshop for agricultural extension-related professionals held in Kathmandu, Nepal in May 2016: (1) Who Does What? (2) Who Has Power and Control? (3) Who Gets What to Eat? (4) and Agricultural Value

Chains. The ready-made Activity Sheets helped Rajendra conduct the field-based training with eleven participants, which included two women. Rajendra facilitated conversations among the participants concerning issues related to gender and nutrition in the household and the field, like who gets to make decisions, use financial resources, and does which tasks in the household and farm. As a result, “The group realized the work load gap between men and women. They were surprised and said they never thought about the women having such a heavy workload.”

By using training activities that he learned at the workshop, Rajendra was able to incorporate greater awareness about

“My understanding of the words Sex and Gender became very clear...not to use and incorporate the word Gender just for the sake of it, but to become more intentional about gender transformation.”  
*Nepal workshop participant*

gender roles and equity in his own work that has direct implications for the farming villages he serves. As Rajendra tells it, “One member of the group was excited and saw the training as a real eye-opener; he said he would try to improve himself and teach others.”



*Adapting training tools to field-based contexts is key to transformation in Jajarkot*

Rajendras’s experience is one of many instances in which the 60 Nepal and India-based representatives from non-governmental organizations, ministries of agriculture, and universities in Nepal and India are using the training activities they learned from INGENAES workshops in their respective fields. The program, entitled “Integrating Gender and Nutrition into Agricultural Extension Services”, has been adapted for different regions around the world, and been implemented in Tajikistan, Bangladesh, Nepal, Malawi, Sierra Leone, and Uganda, and applied to the local context. Aimed at professionals in agricultural extension, from front-line workers to national program managers, the workshops are highly interactive, incorporating role-playing, drawing, and props to bring gender and nutrition challenges that to life.

After the interactive workshops in Nepal, participants shared the insights gained that have changed the way they think about gender. “I gained so many new ideas and skills to improve my work

in the villages; I can implement all of the activities and techniques when I work with the community people,” one participant remarked. Another shared, “I train rural and urban women for my organization so this was a totally new ‘trainings of trainers’ learning experience; learning new ways to engage groups, especially using role play and providing new information at the community level in an interactive way.”

The group named 26 different activities, five being done by men, six by women, and 15 done by both. Though this seems to be an equal distribution at first glance, Tuk noted, “Further discussion revealed that women do not have control over any of the resources and all of the activities are decided by men. After further discussion, the men were convinced to join hands with the women to achieve complementary success from their farm activities.”



*Tuk leads “Who Does What?” in Jajarkot.*

Two of the representatives from Winrock, Tuk Aryal and Janak Acharya, recently took the INGENAES Agricultural Value Chains training activity to the field. Tuk, the district coordinator for Jajarkot, adapted the Agricultural Value Chains activity to Jajarkot’s context by facilitating a session on the maize value chain. He first requested the participants, made up of smallholder men and women farmers, to identify all of the activities involved in producing, harvesting, transporting, and marketing maize.

Janak, the district coordinator with the KISAN project, adapted the value chain activity to Doti district during a post-harvest and marketing training on rice. He first made a rice value chain map using colored notecards and markers, where village participants designated different agricultural activities by sex. Through the exercise, the group found that “Women were doing most of the physical activities, such as transplanting, roguing, weeding, harvesting, threshing, cleaning, and packing. Men were involved in selecting seed, ploughing, transporting, and marketing.”



*Soumyashree Tripathy (PRADAN India) presents different roles of men, women on the rice value chain.*

During the discussion, “Participants realized the higher physical workload women have compared to men...and that men have more to eat than women at meals even though the women have a heavier workload.” By the end of the activity, “Training participants committed to supporting the women more than presently and providing this message to their neighbors for women empowerment.” To build the capacity of extensionists that have not attended an INGENAES training, transforming their awareness of and responsiveness to gender and nutrition issues in their target communities, it is important for the public and private extension providers to train staff at an organizational level.

This is where Shanti Upadhyaya comes in. Shanti works with Plan International and PAHAL, a national extension organization, where she incorporated the “What Goes on the Plate” activity into five financial literacy trainings during the session on nutrition. Additionally, the Plate activity

and “Who Gets What to Eat” was incorporated into PAHAL’s 17 nutrition trainings offered to staff at the national, regional, and district levels. It was also used during a three-day training at the national and regional level staff and a five-day training for district-level staff. In this way, PAHAL is scaling up these activities intensively at the field level so they can reach more rural communities and better serve men and women farmers.

As extension organizations and front-line workers incorporate and address gender and nutrition challenges into regular extension activities, gender equity in agriculture and at home and better nutrition for the whole household is becoming a reality.



*Kabita Devkota (INGENAES In-Country Coordinator) and Arati (FWEAN) found that the amount and type of food family members eat varies by sex and level of power within the household.*

*Story written by Katy Mosiman and Jan Henderson, with input from Kathleen Colverson and Nepal workshop participants.*



## Harnessing the Leadership, Creativity, and Passion of Young People

When Arzoo Ismail was asked to advise a new “Nutrition Club” at the University of Liberal Arts Bangladesh (ULAB) in Dhaka, she almost said no. “I hesitated a bit since I am not a nutritionist or food expert by profession. I do, however, have a passion for healthy eating and living and I try to live my life around such philosophies.”

Such is the mindset of many [Nutrition Club](#) members, most of them university and high school students who care deeply about the health and wellbeing of people in their community but have little formal training in nutrition. Through the clubs, student members are being trained and deployed as volunteer change agents that build nutrition awareness among schoolchildren, their parents, and peers through sharing their knowledge in urban and rural areas.

It is really exciting to know how I can be healthy and keep my community people healthier.”

- Mobarek Hossain, BAU Club President

What started as a collaborative initiative between Bangladesh Institute of ICT in Development (BIID), and INGENAES in August 2016 with a handful of volunteers helping out at a nutrition expo (at the Institute of Nutrition and Food Science at Dhaka University) has blossomed into a very promising capacity development program for young development professionals. INGENAES and BIID wanted to establish these Nutrition Clubs to prepare youth to become the next agricultural development leaders. At the same time, the clubs would enable real health improvements in urban and rural communities in Bangladesh; these communities continue to experience high levels of malnutrition, gender-biased norms that lead to unequal food distribution and consumption in the household – meaning more women and girls are undernourished – and food insecurity.

Many of the students involved in the clubs already recognize the critical situation that many in or around their communities are in regarding food insecurity and nutrition, so they want to help in

some way. As the President of BAU's club Mobarak Hossain shared, "I enjoy our teamwork and disseminating nutrition-based knowledge through our club. It is really exciting to know how I can be healthy and keep my community people healthier."

The clubs provide space, guidance, and resources for these students to dialogue and learn more about nutrition issues while gaining and sharing knowledge to contribute to the main objectives of the Nutrition Clubs. The clubs aim to scale up standardized nutrition messages in a coordinated manner to the general people of Bangladesh and increase food security – for example, through promoting kitchen gardening. In urban areas specifically, the clubs aim to increase awareness on healthy eating and lifestyle and promote rooftop gardening as part of urban nutrition messaging. More broadly, they aim to eradicate undernutrition, discard gender-biased norms, and improve gender-equity in terms of food distribution and consumption at the household level.

"The club certainly adds value to various stakeholders by sharing knowledge in effective ways. A valuable message can be lost if not communicated well. Hence, the seminars, workshops, campaigns, and other events we hold are designed to primarily raise awareness on healthy food habit and maintaining a healthy lifestyle in general. **We believe that if we are touching even one mind, we are nudging one family and the future of it with positive vibes.**"

- Arzoo Ismail, Nutrition Club Advisor

The Nutrition Club model has gained momentum over the past two years especially after the successful Nutrition Olympiad hosted by BIID in 2017, which brought together eight Nutrition Clubs to engage with one another and compete in nutrition-themed learning events. That

momentum has propelled BIID and university and high school collaborators to launch more and more clubs with over 2,000 volunteers in 17 clubs to date (March 2018).

If that doesn't speak clearly enough of the relevance and success of the initiative, its sustainability does. The clubs have become so popular and valuable that students, school faculty and staff, and BIID staff have led and scaled up the initiative without INGENAES's financial support.

Shahid Akbar, CEO of BIID who thought up and then launched the initiative, explained, "I wish you could see the results of INGENAES through the Nutrition Club. Usually when any development project in Bangladesh is over, it is difficult to see any activities continue under that project, but for the Nutrition Club, INGENAES is over yet we are continuing and even scaling up."

In fact, BIID has been integral in the success and growth of the clubs. BIID helps institutions establish the nutrition clubs through providing guidance, an action plan, and valuable training. Just as INGENAES originally helped strengthen BIID's institutional capacity in gender and nutrition integration in extension, BIID also provides capacity building and leadership trainings for volunteers. These trainings prepare the institutions as a whole and the individuals doing the day-to-day planning and management of the nutrition clubs, teaching them to effectively manage their clubs, conduct community-based activities, and provide nutrition messages most relevant to the target communities. Taking their support a step further, BIID encourages volunteerism and acts as a nutrition club partner at various events and programs by providing material needs like communication materials, T-shirts and food plates for the clubs. Overall, BIID helps the nutrition clubs through providing strategic as well as logistical support.



*BIID and the College of Home Economics Nutrition Club organized a workshop on "Importance of Adolescent Nutrition" on 31st May, 31, 2018 in HEC Auditorium.*

The thousands of members have truly taken ownership of the Nutrition Club mission; they have also unmistakably made the Nutrition Club work for their own capacity building goals and for the unique communities with which they engage. For example, many Nutrition Clubs have participated in training on basic nutrition knowledge, smart cooking and homestead gardening conducted by BIID or Helen Keller International, while others have taken that knowledge to the next step and established homestead or school gardens, like at the Imam Gazzali Girls School and College in Pabna and Bangladesh Railway Government School in Mymensingh.

[BAU Nutrition Club](#) has been an exceptional club model, winning the award for Best Nutrition Club at the 2018 Olympiad. To support the internal development of the club with a current member base of 200+ in a more structured manner, BAU Nutrition Club established their own secretariat within their university premises. The club has been persistent in terms of working towards building individual as well as collective capacities of the club members through promoting their skills and self-worth to grow a strong sense of responsibility towards their club and the community at large.

BAU Nutrition Club has initiated a variety of activities, including publishing the *Eat Well, Live Well* wall magazine, organizing essay contests, and implementing the concept of school gardening in a school-based Nutrition Club nearby. The underlying motto of this initiative was to connect the children of Railway Government High School with nature and help them learn more about the source of the food that they eat.



*Nutrition campaign “Wall Magazine” at BAU*

General Secretary of BAU Nutrition Club Ruhul Amin said, “I believe we could change the whole world if we change our ways of eating. As a part of that school gardening campaign, we inspired the children to go back home and educate their families about healthier food, their sources and how these sources could be accommodated within limited land resources. Some of the children actually took their lessons back to home and shared them with their family. We believe these small efforts prove highly effective to educate the community around.”

BAU Nutrition Club has time and again demonstrated their commitment towards bolstering nutrition awareness by reaching out to different audiences through club-wide campaigns.

“As a club, our main goal is to educate that part of the community who are yet to be educated about

good nutrition and healthy lifestyle,” said Ruhul Amin, BAU Nutrition General Secretary.

These campaigns help unify members across institutions and contribute to their shared mission. A couple of campaigns organized by BAU were held right before the [2018 Nutrition Olympiad](#). The “Nutrition Drawing” campaign, held in three schools located in Dhaka, involved students aged 8-12 coming up with innovative painting conveying their understanding of good nutrition and healthy lifestyle.

The 2017 “Food Plate for All” campaign built nutrition awareness through promoting a standard food plate guide in urban and rural communities. The initiative disseminated nutrition messages and promoted standard diet behavior among the mass population. Through this campaign, food plates bundled with nutrition information were distributed to help people adopt healthy food habits. (A baseline survey of the users is currently being conducted which will be followed up with an end line survey. [The survey will be used to observe behavioral change and measure any diet improvements of users](#). The Nutrition Clubs are currently engaging their volunteers to carry out the campaign in their communities.)

Then, the [#standagainstmalnutrition](#) photo contest campaign (next page) involved Nutrition Club members coming up with innovative nutrition messages and convincing people from diverse walks of life to take a photo endorsing the message. The deep-rooted motive of this contest was to leave the beneficiaries with “food for thought” on good nutrition.

“Our experience with the community tells us that it has become a common practice to repeatedly educate that part of the community who are already aware of good and bad nutrition. But as a club, our main goal is to educate that part of the community who are yet to be educated about good nutrition and healthy lifestyle,” said Ruhul.

As the student members gain greater knowledge, tools, and confidence in their own abilities, they are able to increase nutrition awareness in their

year in which they provide customized nutrition tips to the participants based on height, weight, food habits, lifestyle, etc.



*The #standagainstmalnutrition campaign organized by BAU Nutrition Club*

communities. With guidance and support from the Nutrition Clubs, they are building the capacity of people to gain access to enough, quality food for every household member while making healthy, educated food choices that improve their nutrition and wellbeing in the long run.

Indeed, students – the true drivers of change in their institutions and communities – are getting excited about nutrition. Students from the Department of Food and Nutrition, College of Home Economics (HEC) had already formed a nutrition club of their own before BIID extended their hands to foster cooperation. As a part of their club, they organize campaigns at HEC three times a

After the 2017 Nutrition Olympiad, the students decided to join hands with BIID to scale up their initiatives and take them to their local communities. Since then, the HEC Nutrition Club has been operating in full swing as an official part of the Nutrition Club network now fanning across Bangladesh. After bagging a couple of awards in the 2018 Nutrition Olympiad, HEC’s club continues working on individual as well as the collective development of the 450+ club members.

Recently with guidance from BIID, HEC’s club organized a workshop, “What’s my Big Idea about Nutrition?” They sought to motivate the nutrition club members to set a vision for themselves

towards ensuring a healthier community, and therefore grow a sense of ownership towards contributing to the “zero hunger” movement. The club now plans to shoulder the responsibility of a school-based nutrition club located in Joymantap in Singair Upazila where they will launch a series of workshops and activities directed towards changing the nutrition related behavior among adolescents in the community. HEC nutrition club is just one example of the change that enthusiastic student all over the country are inspiring.

Eager to continue the momentum driving nutrition knowledge and change, a second Nutrition Olympiad was held in April 2018 to strengthen the Nutrition Club network and share knowledge and experiences across institutions. This time, 17 clubs participated with over 300 members taking part, preparing themselves to lead nutrition gains in agricultural development.



*One of the booths at the 2018 Olympiad*

Shahin Afroz Bipasha, Olympiad participant and General Secretary of the Islamic University Nutrition Club reflected on the event, explaining, “My best experience after joining Nutrition Club Initiative has been attending the Nutrition Olympiad and anchoring the program....and acting in an awareness building presentation by our club. In the Olympiad I met many important people

working in the nutrition sector too; altogether it was great!”

Emphasized by this year’s motto, “Nutrition and Empowerment of Youth for a Healthy Nation”, the Olympiad was an opportunity to realize several overarching goals. The platform served to: engage youth in the development and implementation of national policies and strategies related to improving nutrition in Bangladesh; foster the exchange of ideas and initiatives, and seek innovative solutions for the role of youth to improve nutrition in rural and urban areas (as well as learnings from other countries); build partnerships between youth and government, international and national organizations, academia and private sector actors for improved nutrition of children and youth; and strengthen the capacity of youth in nutrition leadership and skills and for deepening technical knowledge in food security and nutrition.



*Shahid Akbar poses at a booth at the Olympiad*

The Olympiad included activities like skits, a food design competition (next page), cooking competition, in addition to the stalls that individual clubs and organizations set up to demonstrate nutrition activities. Some 900 young participants from the capital city Dhaka and other districts, government officials, representatives from international and national organizations, civil society, private sector, academia, and media participated. This Olympiad brought the voices of the youth to the national policy development

process and implementation, serving as a space to foster direct dialogue between youth and the government, practitioners, academia, and the private sector.



*Winning artwork of the Food Art Competition at the Nutrition Olympiad by Safrin Amin Antora from the College of Home Economics*

By the end of 2018, the goal is to establish 2000 clubs in addition to the existing 17 clubs with partners, including BIID and the Ministry of Post, Telecom and ICT Division. To this end, three more clubs just formed: clubs at the Maple Leaf International School (March 23, 2018) and the Government College of Home Economics (April 2, 2018), as well as the Nutrition Awareness Club at Dhaka (March 30, 2018). The ICT Division has expressed interest in introducing eSolutions on nutrition through Nutrition Clubs at 1900 schools under Sk. Russel Digital lab of the ICT Division spread all over the country.

Moreover, the original Nutrition Club concept note and standard operating procedures were recently modified to facilitate self-organized groups to start clubs. This was after BIID identified that the major problem with school/college/university-based clubs was the institutional bureaucracy that often stagnated their formation and operations. Additionally, BIID modified the concept note to ensure inclusiveness of dropout students, underprivileged youths and disabled communities.

So what does the future look like as Nutrition Clubs gain more traction and students continue to gain enthusiasm and, in turn, initiative? As Arzoo explained, “Sharing knowledge is about creating more knowledge. In the future, we would like to see our club in international platforms sharing success stories of different communities the club engages with.”

*Cover photo: College of Home Economics, University of Dhaka Nutrition Club © INGENAES 2018.*

*More info on Nutrition Clubs: <http://www.nutritionclub-bd.net/>*

*Story by Katy Mosiman and Shahid Akbar*