



FEED THE FUTURE

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



FY2024 SEMI-ANNUAL REPORT

FEED THE FUTURE INNOVATION LAB FOR FOOD SAFETY



Cornell University

Feed the Future Innovation Lab for Food Safety (FSIL)

FY2024 Semi-Annual Report

Performance Period: October 1, 2023 – March 31, 2024

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RESEARCH PROGRESS SUMMARY

Research progress made during the reporting period

Management Entity (ME) Objective 1: Maintain high standards in management performance through effective structures, a dynamic and adaptive personnel team, and a culture of open communication within the ME, FSIL research community, and with internal and external stakeholders.

Activity 1.1: Create and maintain effective management structures and practices that promote the success of active FSIL projects

In November 2023, FSIL held its first international annual meeting in Phnom Penh, Cambodia. The annual meeting was attended by 70 individuals including USAID representatives, the FSIL Advisory Committee, FSIL Technical Experts, and subaward project teams. It provided an opportunity for subawards to deliver project updates, receive feedback, and foster collaboration among researchers. In addition to presentations from each of FSIL's subawards and from USAID Cambodia's Harvest III project, session topics focused on locally-led development, utilizing leadership skills for research in food safety, and facilitating long-term impact through policy. Following the presentation portion of the annual meeting were two days of field visits in Siem Reap focusing on dairy, fish, and vegetable value chains.

The FSIL management team continued to conduct monthly meetings with each subaward team to receive updates and address any concerns. A member of the management team traveled to Bangladesh to work with laboratory technicians and graduate students at Bangladesh Agricultural University and provide training to strengthen local capacity in food safety-related microbiology research methods. In addition, two members of the management team traveled to Nepal to attend the project's food safety trainings for produce growers. The ME also collaborated significantly with the Nepal subaward team to refine and finalize a food safety training manual for vegetable growers, develop a policy brief to share key findings and recommendations from the project, and organize a national policy consultation about fresh fruit and vegetable food safety scheduled for April 2024.

The Gender Working Group quarterly meetings were held in December 2023 and February 2024 to provide an opportunity for project researchers working in the gender space to network and collaborate. Recent discussions centered on methodology, lessons learned, and accomplishments throughout their projects. A consistent theme that emerged across gender analyses in FSIL projects was the critical role that women play in ensuring food safety across the food system and the need to prioritize participation by women in education and training programs for food safety. Participants also shared reflections on their experience in the Gender Working Group and suggestions for improvement, such as incorporating external gender expertise into discussions. Documentation for Environmental Mitigation and Monitoring (EMMP) was collected and reviewed according to the EMMP plan. Finally, the FSIL management created a policy brief template for effective dissemination of results and outputs. The policy brief for the Nepal project was the first to be completed, with plans to complete at least one brief for each of the projects in Bangladesh, Cambodia, Nigeria, and Senegal in Q3 and Q4 of FY2024.

To strengthen local research capacity, advancing Objective 2 in the FSIL Theory of Change, FSIL supported three graduate students and one project co-principal investigator to attend the International Association for Food Protection 17th Dubai International Food Safety Conference from Dec. 11 - Dec. 13, 2023. FSIL-sponsored attendees from Bangladesh Agricultural University, Senegal's National Higher School of Agriculture of Thiès, and Nigeria's Obafemi Awolowo University presented their work, expanded their professional network, and learned about the latest advancements in food safety.

Activity 1.2: Develop robust monitoring evaluation, and learning (MEL), communication, and open data platforms

FSIL utilized the Piestar DPx platform to collect and monitor MEL data from subawards. Purdue's Ag Data Services began holding one-on-one meetings with each project team to review their data management plans and assist with data preparation and submission to the Harvard Dataverse, and subsequently USAID's Data Development Library (DDL).

FSIL maintained consistent engagement on X (formerly Twitter), LinkedIn, and Agrilinks. A total of ten stories highlighting published papers, researchers, and capacity-strengthening activities were published to Agrilinks during this reporting period, and five spotlights on FSIL-supported graduated students were published on the FSIL website. On X, FSIL currently has 963 followers, with the highest engagement for posts on researchers and graduate students, new papers, and events. This year, FSIL has shifted focus to LinkedIn, where the FSIL page now has 1,393 followers, an increase of 334 followers during this reporting period. Engagement was highest for posts about USAID and Feed the Future Funding opportunities, researcher and graduate student profiles, and awards.

Activity 1.3: Engage FSIL Advisory Committee and Technical Experts in providing guidance and support to ongoing activities

Members of the FSIL Advisory Committee and Technical Experts attended the annual meeting in Cambodia to provide feedback on each project's progress, offer recommendations for consideration in project activities, and provide their thoughts on opportunities for long-term impact beyond each project's life cycle. Advisory Committee members Dr. Ahmed Kablan and Dr. Shibani Gosh led a session on translating research into actionable policies. Recommendations included aligning activities with existing government and private sector priorities, identifying gaps in the evidence base and filling those gaps to support policies, clearly communicating research findings and linking them to policy recommendations, and engaging with government and private sector stakeholders consistently at all stages of an activity. FSIL subawards have taken up these recommendations by identifying messages and results from their projects that should be shared through policy briefs and by planning dissemination and consultation events with local stakeholders. The Bangladesh, Nepal, and Nigeria projects all have stakeholder events planned for Q3 FY2024. Other Technical Experts and members of the Advisory Committee raised points about ways to achieve long-term improvements in safety beyond policy, such as engagement with the private sector, and considering questions of cost effectiveness when drawing conclusions and communicating results.

FSIL management collaborated with FSIL Technical Expert Jake Ricker-Gilbert and a FSIL-supported Senegalese Purdue Agricultural Economics graduate student to conduct social and behavior change research on consumers' willingness to pay for safety labeling for milk in Senegal. The Becker-DeGroot-Marschak (BDM) auction method was used to elicit consumer willingness to pay for fermented milk products. Variations in the products included whether the milk was local or imported and whether it had been tested for microbial contamination by the Senegalese Food Technology Institute (Institut de Technologie Alimentaire, ITA). The study included 800 participants in four markets within the urban and peri-urban areas of Dakar. The study found that participants were willing to pay statistically higher prices for products that were tested or locally sourced, with the highest premium for products that were both tested and locally sourced. While the testing and certification process that was used for the study is not available at scale, the study demonstrates that consumers value local milk over imported and that there is demand for food safety in dairy products which could translate into price premiums to offset the costs of safer practices and certifications.

Bangladesh Objective I: Enhancing Food Safety in Fish and Chicken Value Chains of Bangladesh (Bangladesh Long-Term Subaward)

In FY2023, the team started a second pond trial to evaluate impacts of managing aquaculture ponds using improved practices recommended by the Bangladesh Fisheries Research Institute, including feed formulated without harmful additives. For the second trial, the feed was produced by a private sector feed company, rather than using a self-produced feed, to provide a more consistent product and enable a cost analysis. In FY2024, fish were collected from the trial ponds and comparable commercial farms and total viable count (TVC, an estimate of the concentration of microorganisms), total coliform count (TCC), and prevalence of *Salmonella* were assessed to evaluate the impact of better management practices on microbial risk. Data analysis is in progress.

Quantitative knowledge, attitudes, and practices (KAPs) data was also collected through 1,150 surveys (240 fish producers, 300 people involved in fish trading, and 610 consumers). For producers, favorable attitudes toward food safety were common. Based on an index that was developed and scored from the surveys, 90% of producers had a moderate or good attitude toward food safety practices. Knowledge, however, was a weakness: 70% of producers scored low on food safety knowledge using the developed index. Education and income were found to significantly influence knowledge, attitudes, and practice indices. Additional analysis, including for fish traders and consumers, is in progress.

Data was also collected on female consumer roles in household food purchasing and preparation, attitudes towards safer food, considerations in purchasing fish and chicken, and practices, such as food handling before and during cooking, thawing, and storage. Qualitative data was collected through 12 focus group discussions in seven cities, and quantitative data was collected through a female subset of consumers from the KAPs surveys.

Finally, a choice experiment with 600 respondents was conducted to better understand factors influencing what products consumers purchase and how much they are willing to pay. Fifty different product profiles were created by varying several factors, such as production environment (recommended versus conventional pond management practices), gill color, microbial contamination (labeled as low level, high level, or no information), heavy metal contamination (labeled as low level, high level, or no information), and inspection by the Bangladesh Food Safety Authority. Analysis and manuscript preparation for this data is underway.

Cambodia Objective 1: Reducing Foodborne Pathogen Contamination of Vegetables in Cambodia: Innovative Research, Targeted Interventions, and Impactful, Cambodian-Led Engagement (Cambodia Long-Term Subaward)

The FSIL project in Cambodia completed a choice experiment to determine consumers' willingness to pay for certified safe vegetables. The results were submitted as a proceedings paper to the International Conference of Agricultural Economists. For the longitudinal study, analysis from whole genome sequencing (WGS) was completed for *Salmonella* and is in progress for *E. coli*. This analysis will provide more detailed information on pathogenicity and persistence, which will allow for strategic planning of food safety interventions. The analysis is also underway for two gender studies. The results from the first study, based on qualitative interviews, are in the final stages of preparation for submission of the manuscript for peer review, and the data from the second study, based on focus group discussions, is in the early stages of analysis.

The project also held a training course focused on scientific writing, including publications, presentations, and research abstracts, for graduate students and early-career food safety scientists from October 27 to December 1, 2023. The course consisted of four sessions (three virtual and one in-person). This was the final training program in a series to strengthen Cambodian research capacity; previous workshops focused on statistical analysis, experimental design, and whole genome sequencing.

Kenya Objective I: Chakula Salama: A Risk-Based Approach to Reducing Foodborne Disease and Increasing Production of Safe Foods in Kenya (Kenya Long-Term Subaward)

In August 2023, the Ohio State University (OSU) relinquished its subaward contract with Purdue University for the Chakula Salama project, which had included the University of Nairobi (UoN) and the Kenya Medical Research Institute (KEMRI) as second-tier subawards through OSU. FSIL has worked with the former co-PIs at the UoN and KEMRI to redefine the scope of work, taking into account progress that had already been made on the project, challenges that had been encountered, and the updated team composition, which only includes UoN and KEMRI. An updated scope of work was finalized, budgets were developed, and a request to grant subawards was submitted to USAID. Approval has been received for UoN but is still being evaluated for KEMRI.

Under the redefined scope, UoN will complete the analysis of the previously collected gender-focused dataset to better understand the gendered roles and food safety risks in the poultry value chain. Both organizations will collaborate to determine the prevalence of *Salmonella* and *Campylobacter* on farms and in retail establishments in the poultry value chain and conduct whole genome sequencing on pathogen samples. In addition, UoN will develop and deliver a training program on safe management practices for poultry processing, and KEMRI will collaborate with the FSIL ME to conduct whole metagenome sequencing of wastewater streams to identify foodborne pathogens.

Senegal Objective I: Food Safety Capacity Building in Senegal: Enhancing Resilience of the Dairy Value Chain by Leveraging Public-Private Partnerships (Senegal Long-Term Subaward)

In FY2023, the project conducted a comprehensive survey on food safety practices and perceptions from households, dairy producers, and mini-dairies, including understanding gender roles and gendered differences in food safety practices and perceptions. In FY2024, the team has been cleaning and analyzing the data, with an emphasis on mentoring graduate students in data analysis. The FSIL annual meeting in Cambodia also provided an opportunity for project collaborators to meet and for capacity strengthening around sampling design, determining appropriate sample sizes, and statistical power. The learnings were incorporated into a microbiological sampling plan for dairy producers and processors, which is now underway and is expected to be completed in May 2024. Finally, two graduate students presented posters at the International Association for Food Protection (IAFP) conference in Dubai, and a third graduate student is preparing for their thesis defense.

Nepal Objective I: Market-Led Food Safety in Nepal: Harnessing Production Incentives and Consumer Awareness (Nepal Short-Term Subaward)

The project published the results from water testing conducted in previous reporting periods in the *Journal of Food Protection*, which is an internationally recognized food safety journal. Water used to wash produce was contaminated with *E. coli* in 59% of samples (n=394). Additionally, 66% of stored household water and 57% of water sourced from a tap or communal supply used to wash produce was contaminated with *E. coli*. 55% of grower and vendor water samples were contaminated with *E. coli*, with contamination levels reaching as high as 80% in some locations.

The project also prepared consumer and producer survey data for publication. They found that consumers are willing to pay a premium of up to 30% more for salad vegetables labeled “pesticide residual-free” or “free from harmful microbial contamination,” and producers are willing to incur an additional 13% cost to ensure food safety. Key factors influencing producers' willingness to accept increased costs include access to credit and financial support, food safety awareness and education, market access, land ownership, and risk perceptions.

To strengthen capacity in Good Agricultural Practices that support safe food, the project conducted four training sessions for produce growers and extension agents in agricultural hubs of Nepal, with a total of 272 participants. A fifth workshop was held earlier and reported in the FY2023 annual report. The project also completed a fresh produce grower manual in collaboration with representatives from the Food and Agriculture Organization (FAO) Nepal, the Plant Quarantine and Pesticide Management Center of the Government of Nepal, the Nepal Agriculture Research Council (NARC), and the Nepal Food Scientists and Technologists Association (NEFOSTA).

Finally, the project prepared for a national policy consultation that will take place on April 18, 2024, focusing on microbial food safety in fresh fruits and vegetables, including finalizing a policy brief that summarizes the key findings from the project. Agriculture and Forestry University, NEFOSTA, and FSIL will jointly host the consultation, with strong support and collaboration from the Food Systems for Nutrition Innovation Lab.

Nigeria Objective 1: Strengthening Household and Community Food Safety in Nigeria (Nigeria Short-Term Subaward)

Women's insights on assets, barriers, and challenges to feeding their families nutritious food were documented using the Our Voice Discovery Tool mobile application. Fifty-five mothers were recruited from the five Local Government Areas (LGAs) in Ibadan Metropolis to serve as citizen scientists. Participants were trained to use the Our Voice app and engaged in a three-step process designed to help them understand factors and conditions that make households vulnerable to food safety risks and enable them to identify barriers to and opportunities for improving household food safety. Over the five-day research period, participants responded to a series of prompts, taking pictures to identify what helps and what makes it hard to provide safe, nutritious meals for their families. Subsequently, during ten focus group discussions (organized around LGAs and wealth index categories), the Our Voice participants reviewed the pictures, explained why they took them, identified common themes, and discussed potential strategies to improve household food safety. An abstract based on this research was recently submitted for presentation at the annual meeting of the Society for Nutrition Education and Behavior.

In addition, 15 key informant interviews were conducted with representatives from all five LGAs in Ibadan, including the Director of Public Health at the Ministry of Health, the Oyo State Food Safety Desk Officer, a representative from the National Agency for Food and Drug Administrations, two individuals from the Civil Society Organization, and ten representatives from public and private health clinics. Three focus group discussions were also held with environmental health officers, community development personnel, and representatives from the market association to understand the role their organizations play in promoting food safety and to understand their perceptions and knowledge of local, regional, and national policies related to food safety.

Project-specific concerns

Kenya

Due to OSU's relinquishment of the original subaward, as mentioned above, the FSIL ME invested significant time in strategically redefining the scope of work to leverage previously completed work, address urgent food safety knowledge gaps, and maintain collaboration with valued Kenyan partners at KEMRI and UoN. A new scope of work and budget has been defined and is currently awaiting USAID approval. However, there remain concerns that KEMRI and UoN can complete the work given the proximity to FSIL's projected end date.

Senegal

Limited ability to travel during the COVID-19 pandemic, changes to in-country institution administration, uncertainty surrounding political elections, and challenges in procuring laboratory supplies in Senegal have caused significant delays in meeting project activities. The project leader predicts that they will be able to meet the objectives of the project, but it may require an extension beyond the current end date of May 31, 2024.

HUMAN AND INSTITUTIONAL CAPACITY DEVELOPMENT

A. Short-Term Training

Country of Training	Brief Purpose of Training	Who was Trained	M	F	Total
Bangladesh	Training in laboratory techniques for microorganism detection in fish	Civil society	6	4	10
Cambodia	Scientific writing workshop	Civil society	4	16	20
Nepal	Food safety training for fresh produce growers and extension service providers in Western Nepal (Kohalpur, Lumbini Province)	Smallholder producers, government, and civil society	20	36	56
Nepal	Food safety training for fresh produce growers and extension service providers in Chitwan, Nepal (Chitwan, Bagmati Province)	Smallholder producers, non-smallholder producers, private sector, government, and civil society	37	39	76
Nepal	Food safety training for fresh produce growers and extension service providers in Pokhara, Nepal (Pokhara, Gandaki Province)	Smallholder producers, non-smallholder producers, private sector, government, and civil society	25	40	65
Nepal	Food safety training for fresh produce growers and extension service providers in Kathmandu, Nepal (Bagmati Province, Nepal)	Smallholder producers, non-smallholder producers, private sector, government, and civil society	28	47	75
Total			120	182	302

B. Long-term training

Trainee Number	Sex	University	Degree	Major	Program End Date (M/Y)	Degree Granted (Y/N)	Home Country
1*	F	Purdue University	Ph.D.	Agricultural Sciences Education and Communication	May 2023	N	United States
2*	M	Purdue University	Ph.D.	Agricultural Economics	May 2023	N	United States
3	M	Cornell University	M.S.	Food Science and Technology	November 2023	Y	United States
4	F	Royal University of Agriculture	M.S.	Agro-Industry (Food Microbiology)	December 2024	N	Cambodia
5	F	Royal University of Agriculture	M.S.	Agro-Industry (Food Microbiology)	December 2024	N	Cambodia
6	F	Purdue University	M.S.	Animal Science	December 2022	Y	United States
7	M	Purdue University	Ph.D.	Agricultural Sciences Education and Communication	June 2024	N	United States
8	F	Bangladesh Agricultural University	M.S.	Agricultural Economics	October 2022	Y	Bangladesh
9	F	Bangladesh Agricultural University	M.S.	Food Technology and Rural Industries	December 2022	Y	Bangladesh
10	F	Bangladesh Agricultural University	M.S.	Agricultural Finance and Banking	June 2022	Y	Bangladesh
11	F	Bangladesh Agricultural University	M.S.	Microbiology and Hygiene	October 2022	Y	Bangladesh
12	M	Bangladesh Agricultural University	Ph.D.	Agricultural Economics	December 2024	N	Bangladesh
13	F	National School of	M.S.	Animal Production	March 2023	Y	Senegal

Trainee Number	Sex	University	Degree	Major	Program End Date (M/Y)	Degree Granted (Y/N)	Home Country
		Agriculture (ENSA)					
14**	M	National School of Agriculture (ENSA)	M.S.	Value Chain Development, Agriculture & Agribusiness Entrepreneurship	May 2023	N	Senegal
15	F	Polytechnic School of Dakar	M.S.	Engineering in the Food Industry	March 2023	Y	Senegal
16**	M	National School of Agriculture (ENSA)	M.S.	Value Chain Development, Agriculture & Agribusiness Entrepreneurship	November 2022	N	Senegal
17	F	National School of Agriculture (ENSA)	M.S.	Value Chain Development, Agriculture & Agribusiness Entrepreneurship	May 2024	N	Senegal
18	F	Institute of Technology of Cambodia (ITC)	M.S.	Agri-Industrial Engineering	September 2023	Y	Cambodia
19	F	KEMRI	M.S.	Medical Microbiology	December 2023	N	Kenya
20**	M	KEMRI	M.S.	Medical Microbiology	December 2022	N	Kenya
21	F	Purdue University	Ph.D.	Agricultural Economics	August 2026	N	Senegal
22	F	Bangladesh Agricultural University	Ph.D.	Microbiology	December 2024	N	Bangladesh
23	F	Bangladesh Agricultural University	M.S.	Food Science	December 2022	Y	Bangladesh

Trainee Number	Sex	University	Degree	Major	Program End Date (M/Y)	Degree Granted (Y/N)	Home Country
24	F	Bangladesh Agricultural University	M.S	Agricultural Economics	March 2024	Y	Bangladesh
25	F	Bangladesh Agricultural University	M.S	Microbiology	March 2024	Y	Bangladesh
26	F	Bangladesh Agricultural University	M.S	Agricultural Economics	June 2024	N	Bangladesh
27	M	University of Nairobi	Ph.D.	Food Safety and Quality	December 2024	N	Kenya
28	F	University of Dhaka	M.S.	Sociology	August 2022	Y	Bangladesh
29	F	Purdue University	Ph.D.	Animal Sciences	May 2024	N	United States

*Supported by FSIL for the fall 2020 semester

**Did not complete degree through FSIL

FUTURE WORK

Management Entity

- The FSIL ME will maintain monthly meetings with all subawards to monitor the progress of research activities and provide support and guidance on each project's wrap-up.
- A two-part webinar series will be held in June 2024 to highlight results from current subawards related to gender and social and behavior change in food safety. The gender webinar will share insights from FSIL projects on engaging and empowering women in aquaculture (Bangladesh project), produce production (Cambodia project), and household food safety (Nigeria project). The second webinar will focus on food safety and social and behavior change among consumers, producers, and vendors from FSIL projects in Bangladesh, Cambodia, Nepal, and Senegal.
- Contingent upon USAID's approval to subaward with KEMRI, the ME will work with Kenyan partners to explore using metagenomic sequencing to identify foodborne pathogens in wastewater.
- The ME will support the University of Nairobi and KEMRI (pending USAID approval) to finalize protocols for collecting samples and conducting microbial analyses for the planned poultry pathogen prevalence study.
- The ME will support project teams to ensure all datasets from current subawards are uploaded to the Harvard Dataverse and the Development Data Library (DDL).
- The ME will collaborate with subawards to develop policy briefs that communicate the key findings from their research, implications of the findings, and recommendations for action based on the findings.

- The ME will develop and submit a final report summarizing progress from five years of FSIL activities.
- FSIL will continue to amplify its communication of project activities and results through web stories, e-newsletters, social media, and Agrilinks.

Long-Term Subawards

Bangladesh

- Complete all ongoing data analysis, including the microbial data, KAPs surveys, gender data, cost and return analysis, and consumer choice experiment.
- Organize and facilitate a stakeholder meeting with representatives from the feed industry, government, fish farmers, and fish farming cooperatives to disseminate project results.
- Complete final revisions for a training manual on recommended aquaculture practices.
- Develop and share a policy brief summarizing key findings from the project.
- Submit an estimated six manuscripts for publication in peer-reviewed journals on topics including food safety and gender in aquaculture, food safety economics and consumer willingness to pay, and knowledge, attitudes, and practices along the aquaculture value chain.
- Deposit datasets to the Harvard Dataverse and the Development Data Library (DDL).

Cambodia

- Complete analysis of whole genome sequencing data for *E. coli* and prepare publications to share results of the longitudinal study of pathogens across the vegetable value chain.
- Complete two peer-reviewed publications on gender research and one peer-reviewed publication on the willingness-to-pay study.
- Develop and share a policy brief that summarizes findings from the longitudinal study, behavior research, willingness to pay study, and gender research to identify critical control points in the produce value chain and recommended interventions.
- Deposit datasets to Harvard Dataverse and the DDL.

Kenya

- Finalize contracts between Purdue University and both KEMRI and the University of Nairobi to restart activities under the revised scope of work, pending USAID approval.
- Obtain required IRB approvals and research licenses.
- Complete analysis of the previously collected data about gendered roles and food safety risks in the poultry value chain.
- Collect wastewater samples for metagenomic sequencing to identify foodborne pathogens.
- Conduct microbiological surveys and whole genome sequencing to establish the prevalence of *Salmonella* and *Campylobacter* in smallholder poultry value chains.
- Prepare and deliver a training program on safe management practices for poultry processing.
- Deposit datasets to Harvard Dataverse and the DDL.

Senegal

- Conduct training in handling, preparation, and analysis for microbiology samples.
- Complete data collection and analysis for the microbial assessment of dairy production and processing facilities.
- Complete analysis of the survey data on food safety practices and perceptions from households, dairy producers, and mini-dairies.
- Disseminate project results and outcomes to stakeholders in the dairy value chain.

- Develop and share a policy brief that summarizes key findings from the project.
- Deposit datasets to Harvard Dataverse and the DDL.

Nepal

- Host a national-level policy consultation in Nepal regarding microbial food safety in fresh fruits and vegetables.
- Complete and disseminate the Nepali translation for the training manual “Fresh Produce Safety and Good Agricultural Practices for Produce Growers in Nepal.”
- Complete and disseminate the Nepali translation for the policy brief “Nepal's Food Safety Potential: Research Evidence and Policy Recommendations for Enhancing Food Safety.”
- Deposit datasets to Harvard Dataverse and the DDL.

Nigeria

- Finalize a food safety vulnerability map using a combination of food safety indicators from the household surveys and the environmental sanitation assessment.
- Create a story map using the household survey data and Our Voice results to create a geo-narrative.
- Finalize the analysis of the key-informant interviews and the focus groups with key stakeholders to understand existing policies around food safety.
- Conduct five nominal group technique discussions, in which key stakeholders (e.g., mothers, youth, local government officials, and representatives from the Ministry of Health) will review the vulnerability and story maps, discussing what they find to be the most pressing issues and generate and prioritize solutions.
- Draft and submit manuscripts for peer-reviewed publication on the environmental sanitation assessment, Our Voice activity, key informant interviews and focus groups, and nominal group technique discussions.
- Deposit datasets to Harvard Dataverse and the DDL.