Developing Local Extension Capacity (DLEC) Project

Year 1, Annual Progress Report

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ACRONYMS

AFAAS  African Forum for Agricultural Advisory Services
AES  USAID Agricultural Extension Support Activity (in Bangladesh)
ACDP  World Bank-funded Agriculture Cluster Development Project (Uganda)
AGEP IFMC  Danish-funded Agricultural Growth and Employment Programme Integrated Farm Management Component (Bangladesh)
AOR  Agreement Officer's Representative
BAEN  Bangladesh Agricultural Extension Network
CLA  Collaborating, Learning and Adapting
CoP  Community of Practice
DA  Development Agent (agricultural extension agent in Ethiopia’s public system)
DAD  Bangladesh Department of Agricultural Extension
DAES  Government of Malawi Department of Agricultural Extension Services
DANIDA  Danish International Development Agency
DRDRE  Government of Liberia Department of Regional Development, Research & Extension
DLEC  Feed the Future Developing Local Extension Capacity Project
EAS  Extension and Advisory Services
FAO  Food and Agriculture Organization of the United Nations
FY  Fiscal Year
GFRAS  Global Forum for Rural Advisory Services
GFSS  Global Food Security Strategy
GoE  Government of Ethiopia
ICT  Information and Communication Technology
INGENAES  Feed the Future Integrating Gender and Nutrition within Agricultural Extension Services
IVR  Interactive Voice Response
IFPRI  International Food Policy Research Institute
MaFAAS  Malawi Forum for Agricultural Advisory Services
MEAS  Modernizing Extension and Advisory Services
NGO  Non-governmental Organization
NiFAAS  Nigerian Forum for Agricultural Advisory Services
PMC  Project Management Committee
PROOFS  Dutch-funded Profitable Opportunities for Food Security project (Bangladesh)
RCT  Randomized Controlled Trial
TAC  Technical Advisory Committee
USAID  United States Agency for International Development
EXECUTIVE SUMMARY

The Feed the Future Developing Local Extension Capacity (DLEC) project measurably improves extension programs, policies and services by creating locally-tailored, partnership-based solutions and by mobilizing active communities of practice to advocate for scaling proven approaches. The five-year (2016-2021) project is designed to diagnose, test and share best-fit solutions for agricultural extension systems and services across Feed the Future countries. Led by Digital Green in partnership with Care International, the International Food Policy Research Institute (IFPRI) and the Global Forum for Rural Advisory Services (GFRAS), DLEC is an action-oriented, evidence-based learning project that generates evidence through diagnostic studies and engagement activities, which in turn are used as a catalyst for mobilizing global and country-level communities of practice (CoPs) to advocate for improved EAS.

In FY 17, DLEC launched a set of diagnostics, on-the-ground and action research activities (engagements), a global CoP and a country-level CoP in Bangladesh. These efforts are influencing approaches to EAS by governments, donors and implementers. For example, DLEC’s desk study for Liberia influenced the government priorities, consolidated its approach to extension reform and provided a blueprint used by the Ministry of Agriculture in its application to the Food and Agriculture Organization of the United Nations (FAO) for a two-year Agriculture Sector Investment Program.

DLEC’s engagement in Bangladesh is an example of how a small investment can improve EAS program operations in response to a specific need identified by the diagnostic. The engagement has not only demonstrated a best-fit solution and adapted it to the country context, but also coalesced a group of donors and EAS providers interested in picking up the approach to benefit more farmers. The Bangladesh CoP launched in September shows promise for continued momentum and enthusiasm for developing partnerships and sharing information among local EAS actors.

Collaboration, Learning and Adaptation

Guided by our outcome-level indicators, “Number of partners adopting recommendations to improve EAS program operations” and the related (indirect indicator) target of one million households served by partners with improved EAS programs by the end of project implementation, DLEC sharpened its focus on how we influence EAS actors. We have made country-level assessments more targeted and action-oriented to focus on particular stakeholders’ (both USAID missions and other actors) areas of interest and include actionable recommendations.

As the adapted approach decreases the number of diagnostics DLEC will produce, DLEC has increased its number of total engagements from four to ten (with six to be underway in FY 18). In engagement countries, DLEC will catalyze action to take up the learning and recommendations it generates, either through a country-level CoP or a series of events and outreach.
Summary of Progress against Targets

Table 1 shows a summary of performance to date against targets that measure progress toward the outcome “integration of evidence-based approaches to relevant, effective and sustainable EAS systems into agriculture sector programming.” A more detailed table is included in Annex A.

Table 1. DLEC Outcome Indicator Summary

<table>
<thead>
<tr>
<th>Indicator</th>
<th>FY 17 Target</th>
<th>Actual FY 17</th>
<th>LOP Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Number of partners adopting changes to improve EAS program operations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donor organization (country-level)</td>
<td>1</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Public sector ministry</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Local and international NGO implementer</td>
<td>2</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td>Private-sector firm</td>
<td>1</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>2. Number of households served by partners with improved EAS programs</td>
<td>0</td>
<td>3,211</td>
<td>1 million</td>
</tr>
</tbody>
</table>

Outcome-level results. DLEC works through multiple interconnected impact pathways: USAID and other donors, public-sector ministries, local and international NGOs (often project implementers) and private-sector EAS providers. In FY 17, the DLEC diagnostic influenced priorities of Liberia’s Ministry of Agriculture Department of Regional Development, Research & Extension, which incorporated recommendations from the DLEC diagnostic in its project design submitted to FAO for funding consideration. Four other organizations adopted changes that have improved their EAS service provision. In the last part of FY 17, these organizations have served thousands of households with improved market engagement or advisory services.

- In Bangladesh, DLEC’s work with the local non-governmental organization (NGO) and USAID implementer, Dhaka Ahsania Mission, has helped it to more sustainably link farmers to markets. By improving its market engagement services, DLEC has helped the USAID Agricultural Extension Support Activity (AESA) increase the incomes of 1,197 of its beneficiary households.

- In Nigeria, three private sector firms, Sahel Capital Advisors, L&Z Integrated Farms and Royal FrieslandCampina WAMCO, are using the ICT-enabled advisory techniques taught to its extension agents by DLEC to train women dairy producers in improved practices. The agents trained 2,014 producers in FY 17 and plan to train a total of 15,000 producers.

A number of donors and other stakeholders have expressed interest in adopting approaches that DLEC has demonstrated or recommended. Based on the results of our engagement in Bangladesh, the Danish International Development Agency (DANIDA) is interested to incorporate DLEC’s demonstrated approach to creating sustainable market linkages for smallholder farmers — something its Agricultural Growth and Employment Programme (AGEP) Integrated Farm Management Component (IFMC) has struggled to accomplish. In addition, the World Bank is interested in incorporating Digital Green’s video-enabled approach to extension service provision in its National Agriculture Technology Program in Bangladesh. The Bangladesh Department of Agricultural Extension (DAE) has requested that DLEC train its extension officers in ICT-enabled extension advisory methods and Uganda’s new Directorate of Agricultural Extension Services has signaled a role for digital extension within its future extension strategy.
DLEC shared recommendations from the Malawi desk review to provide participatory feedback for a March, 2017 workshop to inform development of the government’s new extension strategy. Findings in part informed the resulting “Proceedings of MaFAAS Malawi Extension Strategy Input,” which the Malawi Forum for Agricultural Advisory Services (MaFAAS) submitted to the Government of Malawi in June.

An outline for achieving the target of 1 million households served by partners with improved EAS programs is shown in Table 2 (more detail is provided in Annex C). The influence pathways and projected numbers for engagements that have not yet begun are lines of investigation DLEC has pursued that show the most promise at this time. Our experience in Bangladesh has shown that new influence pathways may develop as we demonstrate successful models and organize stakeholders around solutions to identified EAS gaps.

Table 2. Path to Scale

<table>
<thead>
<tr>
<th>Country</th>
<th>Influence Pathway</th>
<th>Average estimated scale potential¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>Dhaka Ahsania Mission</td>
<td>4,000</td>
</tr>
<tr>
<td></td>
<td>DAE officer training</td>
<td>500,000</td>
</tr>
<tr>
<td></td>
<td>DANIDA-funded Agricultural Growth and Employment Programme (AGEP)</td>
<td>100,000</td>
</tr>
<tr>
<td></td>
<td>Integrated Farm Management Component (IFMC)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dutch-funded Profitable Opportunities for Food Security (PROOFS)</td>
<td>6,000</td>
</tr>
<tr>
<td></td>
<td>World Bank National Agriculture Technology Program</td>
<td>100,000</td>
</tr>
<tr>
<td></td>
<td>Feed the Future Livestock Production for Improved Nutrition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Feed the Future Bangladesh Rice and Diversified Crops Activity</td>
<td>100,000</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>Ethiopian Ministry of Agriculture and Natural Resources</td>
<td>250,000</td>
</tr>
<tr>
<td>Uganda</td>
<td>World Bank Agriculture Cluster Development Project (ACDP)</td>
<td>200,000</td>
</tr>
<tr>
<td></td>
<td>USAID program (pending design)</td>
<td>250,000</td>
</tr>
<tr>
<td></td>
<td>Directorate of Agricultural Extension Services extension strategy</td>
<td>200,000</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Dairy Development Programme</td>
<td>15,000</td>
</tr>
<tr>
<td></td>
<td>Private and Public EAS provider training</td>
<td>75,000</td>
</tr>
<tr>
<td>Nepal</td>
<td>Feed the Future Knowledge-Based Integrated Sustainable Agriculture in Nepal</td>
<td>175,000</td>
</tr>
<tr>
<td>Honduras</td>
<td>Food Security project in the Dry Corrido (CARE)</td>
<td>12,000</td>
</tr>
<tr>
<td>Mali</td>
<td>Food for Peace Harande (CARE; Mopti region)</td>
<td>250,000</td>
</tr>
<tr>
<td></td>
<td>Livestock for Growth, Mali Livestock Technology Scaling Program</td>
<td>20,000</td>
</tr>
<tr>
<td>Liberia</td>
<td>FAO Agriculture Sector Investment Program</td>
<td>300,000</td>
</tr>
</tbody>
</table>

Next steps. In FY 18 and onward, DLEC will focus on leveraging maximum results from our investments in diagnostics, engagements and CoPs to influence country-level stakeholders, including implementers and donors of ongoing programs, to assist public, private and civil society EAS providers to reach a total of 1 million farming households with improved EAS services.

¹ For named projects, estimates are based on current project reach, timeframe for completion and degree of influence. Reach for training activities is based on average reach of extension agents in each country. Numbers are averages based on an estimated range and signify a total for what could be achieved by end of DLEC life of project. Although some pathways may not materialize, others may become apparent once an engagement is underway.
DLEC will measure CoP events’ effectiveness to engage participants, by using a proxy measure of the likelihood that CoP participants will advocate for or implement changes based on DLEC recommendations and evidence (i.e., influence). The “net promoter score” ascertains participants’ opinions regarding whether they are getting useful and actionable information from DLEC. In FY 18, we will work on a method to aggregate scores between the range of events that take place from webinars, global events and country-level workshops.

OUTPUT 1: GENERATION AND DOCUMENTATION OF EVIDENCE-BASED APPROACHES TO EAS STRENGTHENING

A series of diagnostics (Activity 1.1) and country engagements (Activity 1.2) are generating and documenting evidence-based approaches to EAS strengthening. DLEC has completed diagnostics for five of the 10 countries planned for FY 17; diagnostics for five additional countries will be completed in November (see Table 3). Implementation has been slower than originally planned due to the shift in nature of diagnostics for Senegal, Mali and Rwanda from desk studies (literature reviews and updates that do not require travel) to targeted diagnostics that require planning with the target audience in addition to travel, which extended consultants’ timelines. The additional time and investment will yield a product that is more relevant and influential than the planned desk studies.

DLEC submitted three journal articles (application of best-fit framework, Nigeria private-sector role in extension, and capacity and management issues in extension in Nigeria) for publication, which are currently under review. All completed reports, publications and communications are listed in Annex B with links to access each online.

In FY 17, DLEC designed and launched engagements in Bangladesh, Ethiopia, Uganda, Malawi and Nigeria. Although the engagement initiated in Malawi was cancelled in August in favor of opportunities with clearer influence pathways and potential to reach more households with improved extension services, DLEC will soon complete design of the next phase for the engagement undertaken in Nigeria to expand on that work. DLEC plans to initiate four or five engagements in FY 18 in Honduras, Mali, Nepal, Burma, and possibly Niger.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>FY 17 Target</th>
<th>Actual FY 17</th>
<th>LOP Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Number of diagnostics, studies and other publications finalized and shared</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EAS diagnostics and workshop summaries (number of countries)</td>
<td>10</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Engagement-related publications</td>
<td>0</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Journal articles</td>
<td>1</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td>2. Number of engagements designed and initiated</td>
<td>4</td>
<td>4</td>
<td>10</td>
</tr>
</tbody>
</table>
Activity 1.1: Conduct Diagnostics in Feed the Future Priority and Aligned Countries

DLEC diagnostics contribute to EAS learning globally, identify drivers of success or failure to inform entry points to improve aspects of the EAS system and provide contextual information and recommendations for potential investments. Table 4 summarizes diagnostics completed in FY 17.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Completed FY 2017</th>
<th>To be Completed FY 18 Q1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.1 Stakeholder mapping to identify key EAS stakeholders in country</td>
<td>Bangladesh, Honduras, Nigeria, Ethiopia, Guinea, Malawi, and Mozambique</td>
<td>Senegal</td>
</tr>
<tr>
<td>1.1.2 Desk studies to provide information on the status of country EAS systems and inform potential investments by a variety of stakeholders</td>
<td>Bangladesh, Liberia, Malawi</td>
<td>Guinea and Mozambique</td>
</tr>
<tr>
<td>1.1.3 In-depth country EAS system assessments to provide contextual information and recommendations for on-the-ground activities</td>
<td>Honduras and Nigeria</td>
<td></td>
</tr>
<tr>
<td>1.1.4 Stakeholder meetings to validate conclusions of previous or recent DLEC EAS assessments*</td>
<td>Bangladesh</td>
<td></td>
</tr>
<tr>
<td>1.1.5 Other diagnostics as requested for targeted assessments in specific programs or a specific aspect of EAS</td>
<td>Mali, Rwanda and Senegal</td>
<td></td>
</tr>
</tbody>
</table>

1.1.1 Map Country EAS stakeholders

With assistance from in-country experts, DLEC has identified EAS actors within the context of county-level ecosystems and extension needs in eight countries: Bangladesh, Honduras, Nigeria, Ethiopia, Guinea, Malawi, Mozambique, and Senegal. DLEC has shared the mapping matrices with GFRAS to update the Worldwide Extension Study as well as with country-level stakeholders.

1.1.2 - 1.1.5 Conduct Desk Studies, In-Depth Country EAS Assessments, Stakeholder Meetings and Other Targeted Diagnostics

After completing an initial series of desk studies and the in-depth assessments for Honduras and Nigeria, DLEC changed its approach to diagnostics based on USAID mission requests for more targeted assessments and action-oriented recommendations. Beginning in April 2017, all assessments began to focus on particular programs or specific aspects of EAS. The project dropped overview case studies and comprehensive country assessments in favor of a targeted approach in which each diagnostic is focused on the goal of influencing specific stakeholders to integrate recommendations into programming. Each diagnostic produces recommendations the target audience(s) can implement; and ties directly to an influence pathway.²

Diagnostics have been carried out by a combination of international and in-country extension experts led by Digital Green, IFPRI and GFRAS. This section summarizes diagnostics completed in FY 17 and the opportunities, needs and priorities each has identified. A comprehensive list of DLEC publications is attached in Annex B.

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² Due to this more targeted approach and the announcement in September of the 12 countries for targeted investment under the Global Food Security Strategy (GFSS), DLEC revised the list of countries for which we will likely complete diagnostics in the FY 18 workplan.
### Bangladesh

<table>
<thead>
<tr>
<th>Diagnostic type</th>
<th>Stakeholder workshop (December 2016) and desk study (March 2017)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>Bangladesh Agricultural Extension Network (BAEN), the GFRAS Agricultural Extension in South Asia Network, government ministries, civil society organizations, international and local knowledge and research institutions, USAID implementers, donors</td>
</tr>
<tr>
<td>Identified audience</td>
<td>BAEN, Government of Bangladesh, USAID, USAID implementing partners</td>
</tr>
<tr>
<td>EAS opportunities identified</td>
<td>Existing resources that can be leveraged to strengthen and drive success of EAS services include: a network of 14,000 public extension agents with adequate technical training and thousands of agro-retailers; presence of contract farming companies and a large number of farmer producer groups; localized content developed at research institutions; high mobile penetration; policies and government initiatives, such as the government’s Access to Information initiative and Digital Bangladesh.</td>
</tr>
<tr>
<td>Needs and priorities identified</td>
<td>Smallholder farmers face numerous barriers around access to markets, transparent price information and earning adequate incomes from market sales. The government department charged with market development has limited reach, and donor-funded projects have struggled to deliver sustainable results.</td>
</tr>
<tr>
<td>Result</td>
<td>DLEC developed an engagement that leverages the work of an ongoing USAID investment and demonstrates a near-sustainable model that increases smallholder farmers’ incomes by improving access to markets and market price information and lowering farmers’ costs.</td>
</tr>
</tbody>
</table>

### Honduras

<table>
<thead>
<tr>
<th>Diagnostic type</th>
<th>In-depth EAS assessment (April, 2017)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAS opportunities identified</td>
<td>Presence of service providers at all levels due to the government’s decentralization efforts present a good foundation on which to build local capacity and provide services to farmers. National and sectoral policy frameworks create favorable conditions for strengthening EAS as an important element for achieving national policy goals. There is a normative framework that creates an opportunity to strengthen the local extension system supported by municipal associations, which understand the local problems farmers face; however, there should be a clear path for the associations to resource and provide such services.</td>
</tr>
<tr>
<td>EAS needs and priorities identified</td>
<td>Improve coordination of EAS delivery and explore a new model for service planning, delivery and monitoring by municipal associations.</td>
</tr>
<tr>
<td>Identified audiences</td>
<td>USAID, Latin American Network for Rural Extension Services and Central American Agricultural Council, an agency of Central American Integration System</td>
</tr>
<tr>
<td>Result</td>
<td>As part of the GFRAS-hosted Spanish- and English-language webinars in October, participants will develop a regional-level action plan based on the report and resulting discussions.</td>
</tr>
<tr>
<td><strong>Planned follow-up</strong></td>
<td>CARE is designing an engagement that builds on recommendations and strengthens EAS service provision for vulnerable groups in collaboration with the Food Security in the Dry Corridor initiative within the multi-donor Alliance for the Dry Corridor.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

### Liberia

**Diagnostic type**
Desk review (June, 2017)

**EAS opportunities identified**
The Department of Regional Development, Research and Extension (DRDRE) is committed to improving EAS. There is a policy framework for a pluralistic, demand-driven, market-led system; slow but steady progress toward public-sector EAS decentralization is being made; pluralism is embraced and private-sector EAS is emerging. There are opportunities for ICT-based EAS and potential opportunities for public-private partnerships between the Ministry of Agriculture, concessionaires and, in particular, large-scale tree crop farms.

**Needs and priorities identified**
1) Channel government and donor investments into developing and maintaining sustainable DRDRE systems. 2) Facilitate dissemination of the National Policy for Agricultural EAS to county and district levels. 3) Develop and resource national, county and district mechanisms to strengthen Liberia’s EAS system as a pluralistic whole and design demand-driven EAS programs. 4) Prioritize inclusion of financial literacy for farmers to improve credit access and explicitly link farmers to sources of credit.

**Identified audience**
Ministry of Agriculture, Government of Liberia

**Result**
Recommended activities and approach to agricultural extension were incorporated into the Ministry of Agriculture’s Liberia Agriculture Sector Investment Program proposal submitted to the FAO.

### Malawi

**Diagnostic type**
Desk review (June, 2017)

**EAS opportunities identified**
Malawi has: government support, policies and frameworks to guide EAS implementation; strong pluralism including farmer organizations, NGOs and private sector; and training programs for extension agents. MaFAAS coordinates stakeholders and advocates for EAS funding.

**Needs and priorities identified**
1) The Department of Agricultural Extension Services (DAES) should tackle the imbalanced extension worker vacancy rate and encourage private and civil society involvement in relatively better-off areas, prioritizing allocation of public extension workers to poorer areas where vacancy rates are highest. 2) EAS providers, especially the DAES, should create a strategy for content design and delivery. 3) Undertake a curriculum review and market assessment to match training with needs. Increase the proportion of women students in EAS-related programs.

**Identified audience**
Government of Malawi, donors and other stakeholders including the private sector
| Result | Provided recommendations to a participatory process to inform development of the Malawi Ministry of Agriculture, Irrigation and Water Development’s new extension strategy during an Extension Strategy Workshop convened by MaFAAS in March, 2017. MaFAAS consolidated input from district, national and international stakeholders and submitted a statement to the Chairperson of the Parliamentary Committee on Agriculture and Members of Parliament at the Parliament Building in Lilongwe in June, 2017. |
| Planned follow-up | The diagnostic forms discussion materials for a DLEC-hosted African Forum for Agricultural Advisory Services (AFAAS) regional roundtable on improving reach and quality of extension and advisory service systems in Africa (November 4, 2017, Durban, South Africa). |

**Nigeria**

| Diagnostic type | In-depth EAS assessment (March, 2017) |
| EAS opportunities identified | This is an opportune moment to strengthen EAS in Nigeria due to private sector activity, renewed government interest, many options for investors to revitalize the extension system, and presence of several agricultural institutes and universities. Political will is exemplified by formation of the Department of Extension and its 7,000 public EAS agents and establishment of the N-Power Agro program, which hired 30,000 youth to support agriculture. A federal initiative for an electronic wallet system can deliver input vouchers to farmers by phone. |
| EAS needs and priorities identified | Development of a sustainable, ICT-enabled public-private extension model for training agro-dealers and other private providers; bundling extension advice with other market services such as input supply, output markets, finance, transport and storage; and use of ICTs to enable farmers to authenticate the quality of the inputs they purchase. |
| Identified audiences | USAID, Nigerian Forum for Agricultural Advisory Services (NiFAAS) |

| Result | The USAID mission in Nigeria may use aspects of the report to inform future programming. NiFAAS plans to use the report for advocacy to the federal and state governments to garner support for extension. |
| Planned follow-up | The diagnostic forms discussion materials for a DLEC-hosted AFAAS regional roundtable on improving reach and quality of EAS systems in Africa (November 4, 2017, Durban, South Africa). |

**Lessons Learned from the Diagnostic Process**

All diagnostics to be completed in FY 18 and future years will be demand-driven, present a clear path for influence and inform an engagement. Upcoming diagnostics may include Burma and Niger. DLEC will evaluate additional requests for diagnostics against likelihood for influence in terms of affecting policies or programs that reach and benefit farmers.
Next Steps

DLEC will follow up on recommendations from completed diagnostics (and any additional diagnostics) to leverage maximum results from our investment by engaging with stakeholders as appropriate to each context — such as calls, meetings, DLEC-hosted events and participation in non-DLEC events. We will continue to share all completed diagnostics widely via CoP and GFRAS platforms. A meta-analysis according to the six DLEC framework characteristics (see Annex F) is planned for FY 18, as well as an outline for papers on a number of thematic topics such as pluralism and use of ICT in EAS.

Activity 1.2: Conduct In-Country Engagements in Feed the Future Priority and Aligned Countries

DLEC’s on-the-ground and action research activities (engagements) develop and showcase effective models of EAS delivery with wide applicability and replicability. They take diagnostics one step further by demonstrating or field testing particular solutions that respond to opportunities or gaps identified in the diagnostic. Expanding the engagement portfolio builds the menu of solutions that can be adapted and implemented elsewhere. By working with ongoing initiatives, engagements also build local capacity to deliver EAS.

Each engagement has one or more defined influence pathway. In FY 18, DLEC’s country coordinators will engage with local stakeholders and lead development of a country-level CoP (output 2.2), so that engagements’ results and learning directly contribute to the design of effective extension programs or policies.

Scope and Design New Engagements.

DLEC has conducted scoping missions to Bangladesh, Burma, Honduras, Malawi, Mozambique, Nigeria, Rwanda and Uganda to assess the EAS ecosystem and explore DLEC opportunities with missions and other stakeholders. In Nigeria, the DLEC team met with the USAID mission twice in connection with the diagnostic report and engagement activity. DLEC made two separate trips to Burma to meet with government representatives, the USAID mission and implementing partners to gauge interest in and influence potential for an engagement activity. In Rwanda, DLEC met with the USAID mission to assess interest in and plans for incorporating the findings of an EAS diagnostic report into ongoing value chain programming. DLEC also held discussions with USAID missions in Ghana, Guinea and Mozambique to discuss ways DLEC can collaborate with ongoing projects. Digital Green participated in a USAID-sponsored learning event on extension in Tanzania.

Summaries of plans for future engagements in Nepal, Mali, Honduras, Niger and Burma, including the gaps and opportunities they address and an outline of possible paths for influence and scale are included in Annex C. Additional detail for ongoing engagements is also provided in Annex C.

1.2.1 Advisory Methods and Governance Impact Evaluation (Ethiopia)

Summary and Objectives. DLEC partner International Food Policy Research Institute (IFPRI) is implementing a randomized controlled trial (RCT) to assess the impact and cost-effectiveness of use of ICT in extension in terms of farmer productivity, food security and gender inclusiveness. The RCT aims to: provide evidence on whether integration of ICT improves public extension system performance, as measured by use of improved practices by farmers and corresponding changes in yields, income and household welfare; compare adoption of improved agricultural practices in
households where both spouses view videos compared to those in which only one does so; and
assess whether introducing technology into the EAS delivery channel has a positive influence on
extension agent motivation. Results will highlight effective approaches and adaptations that improve
performance.

Activities. The three-arm cluster RCT is implemented in 30 woredas in four regions (Amhara,
Oromia, Tigray and Southern Nations Nationality People’s Region). Within each selected woreda, the
study has randomly allocated candidate kebeles – the smallest administrative unit in rural Ethiopia
and the scale of operation for public extension agents (called development agents or DAs) to one of
three groups: 1) a control group in which DAs use a traditional visit-and-train approach to promote
the same agricultural technologies as those promoted in the treatment groups; 2) a treatment group
in which DAs implement the video-enabled extension approach; or 3) a treatment group employing
the video-enabled approach, but in which both spouses attend screenings separately.

IFPRI held an inception workshop and secured buy-in of woreda-level officers in June 2017.
Implementation is ongoing through the main rainy season; harvests begin in November/December.
The research team is analyzing data from its survey of 900 DAs across the treatment and control
groups. IFPRI is designing the household questionnaire and finalizing the sampling procedure that
will measure technology adoption, agricultural yields and other outcomes across the three groups to
assess use of promoted technologies and inputs, household characteristics and intra-household
decision making. The team will randomly select eight households engaged in farming wheat or teff
in each kebele to be surveyed, for a total sample of 2816 households distributed across the three
groups. The household survey and follow-up DA survey will both begin in January. DLEC will share
preliminary results and recommendations in June 2018.

Obstacles and Adaptations. The start of the evaluation was delayed from fall 2016 until February
2017 due to civil unrest in Oromia and Amhara regions. Due to a challenge encountered in
procuring pico projectors prior to the start of the maize cropping cycle, the scope of the study has
been reduced to include wheat and teff production only.

Influence Scope and Scale. Providing evidence on the results and cost-effectiveness of ICT-
enabled extension, in contrast to the traditional approach, has the potential to lead to greater buy-in,
investment and integration by the Ethiopian Ministry of Agriculture and Natural Resources across
additional zones and regions. This additional investment could reach 350,000 farmers with improved
EAS services by May 2021. The learning also provides a model for institutionalization of the ICT-
enabled approach to the broader EAS community in-country and regionally. DLEC will disseminate
findings to public-sector extension service providers and donors in other countries to share evidence
related to extending the reach and amplifying effectiveness of those systems.

1.2.2 Producer Group Strengthening via Digital Video (Malawi)

CARE had a prominent role at the MaFAAS-hosted Extension Week in June, 2017 and presented
the engagement plans at that event attended by EAS stakeholders in Malawi. Digital Green trained
11 CARE staff on effective techniques for video production for social behavior change
communication. Trainees produced two videos during the training — one on marketing as a group,
including aggregation, collection and warehousing; and another on the “cashflow tree,” which
addresses household budgeting, spending and decision making. Plans to test the digital advisory
method within the Farmer Field Business School Model employed by CARE in Malawi, however,
did not materialize. The engagement was cancelled in August 2017 in favor of engagement activities with clearer opportunities to influence EAS stakeholders.

1.2.3 Market Engagement (Bangladesh)

Summary and Objectives. DLEC is demonstrating a model that increases smallholder farmers’ net incomes by improving access to markets and market information and reducing attendant costs. Loop is a shared transport-to-market service backed by a mobile phone application that ensures transparency and accountability for farmer participants. It is based on the principle that the more farmers can aggregate, the more negotiating power they have to lower costs of transport and increase their income from sales. Digitized transactions provide transparent records for farmers as well as real-time price information. A long-term goal is to develop community-based entrepreneurs by establishing a financially sustainable business model for their services — providing demand-driven agricultural advisory services, near real-time market price information and aggregation services for market transport and sales.

The activity was developed as a result of feedback from the DLEC desk study and the December 2016 DLEC stakeholder workshop that raised concerns about the sustainability of existing project-based extension activities and identified systemic weaknesses in linking farmers to markets. Digital Green is implementing the activity in partnership with the USAID Agriculture Extension and Support Activity (AESA) implemented by the Dhaka Ahsania Mission with support from CARE and mPower and in partnership with the Department of Agricultural Extension (DAE).

Activities. Phase 1, scoping and feasibility testing, was piloted among 20 farmer producer groups selected from among AESA beneficiaries, based on their capacity, vegetable growing patterns and output market structures. Each group selected one member, based on leadership skills and technical literacy, to serve as aggregators who provide near real-time market insight to farmers using data from the previous day’s sales and facilitate aggregation and market transport for perishable produce.

Between April and September, 2017, DLEC worked with Dhaka Ahsania Mission to train 19 aggregators who have recruited 1,197 farmers to participate in Loop. Aggregators use the Loop mobile application to log all daily transactions and send digital receipts to farmers, increasing transparency and accountability for farmers and aggregators. The Upazila Agriculture Officer supports project activities and has expressed DAE’s support for the activity. Farmers have sold more than 1.2 million kilograms of produce via Loop, earning more than $390,000. Nearly 69 percent of Loop’s costs (transportation, and aggregator payments) are covered by farmer contributions. Phase one concluded with a national workshop to share results with stakeholders in September (see Activity 2.1.1). Phase two runs from September through March 2018. In phase two, we expect to: enroll 3,000 additional farmers in 30 additional producer groups, who increase their incomes by 10 percent. Over time, increased recovery of operational costs from farmers and market actors will allow Loop to become sustainable. A nearby photo shows produce aggregated by the Loop service.
Two DAM staff participated in the aggregator trainings as representatives of the organization. This training built staff capacity to support both the aggregators and the farmers engaged in produce aggregation and market transport activities and in understanding techniques to increase farmers’ incomes with improved market linkages.

**Influence Scope and Scale.** DLEC’s influence of project implementers, donors and the public sector in Bangladesh, show a promising path to scale activities to reach more than 600,000 farming households (see Table 2). DLEC’s work with the implementer, Dhaka Ahsania Mission, has helped it to more sustainably link farmers to markets. By improving its market engagement services, DLEC has helped DAM and AESA increase the incomes of nearly 1,200 of its beneficiary households; we expect it to improve incomes for a total of 4,000 farmers before AESA ends in FY 2018.

The engagement in Bangladesh, while focused on market linkages and the private sector, sparked interest in the public sector. DAE has requested that DLEC train its extension officers in digital extension. DLEC plans to conduct 14 training of trainers courses to train a total of 420 extension officers. These officers will in turn train field-level DAE extension agents, who are each responsible for 900-2000 farm families.3

Two donor-funded projects in Bangladesh may incorporate the sustainable market orientation demonstrated by this engagement: the Dutch-funded, market-oriented PROOFS project, which is creating 320 farm business groups; and the DANIDA-funded AGEP IFMC, which has trained three million households on improved farm management since 2013. The World Bank is interested in incorporating the video-enabled approach used by Digital Green — which DLEC is evaluating in Ethiopia — into its National Agriculture Technology Program in five districts, reaching approximately 100,000 farmers4. ACDI/VOCA is exploring incorporating the video-enabled extension approach into its work in Bangladesh, where it is implementing two ongoing USAID-funded projects with potential to reach an additional 100,000 farmers over the next year.

### 1.2.4 Community Engagement and Advisory Methods (Uganda)

**Summary and Objectives.** USAID/Uganda is adopting an agricultural market systems approach as a central element of its new Country Development and Cooperation Strategy. To support the mission’s efforts in this regard, this engagement will furnish learning on a key element of the market systems approach: how farmers adopt new information and knowledge in order to improve production. The one-year research study is investigating the way farmers adopt information about improved agricultural practices by comparing information delivery techniques. Given that extension services in many countries tend to employ male extension workers and target male household heads, this study also compares the gender of “messengers.” The study is investigating: 1) the role of the gender of the person(s) providing the information and the gender/age composition of the persons who receive the information; 2) whether framing the message using social marketing techniques as opposed to the more traditional, teacher-student model is more persuasive; and 3) effectiveness of message delivery via video vs. video combined with interactive voice response (IVR).

IFPRI is assessing the effectiveness of each ICT platform in terms of four measures: knowledge gain, adoption of promoted practices, maize yield increase and income increase. It will measure these

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3 If the 420 trained officers each train 15 agents on average, those agents could cumulatively reach 550,000 - 650,000 farming households.
4 This project’s planned total reach (2015-2021) is 1 million, approximately twice the number it has reached to date.
outcomes against the comparative costs of each platform. DLEC consortium member IFPRI leads the study with support on the IVR system from Viamo.

Activities. IFPRI has produced three short videos (male presenter, female presenter, male and female co-presenters) that demonstrate simple and effective ways to increase maize yield in Lusoga with English subtitles. Varied combinations of digital content have been distributed to more than 4,000 individuals according to group assignment using tablets. First and second rounds of video screening for selected individuals and rural households were completed in July and September. Some attrition (437 farmers) occurred between the two rounds, especially for households in which videos were shown to couples, as both members were not always available at the same time. A total of 4,310 farmers saw both videos (926 couples and 2458 individuals). A subsample of households is sent SMS messages to remind them of particular practices. On-demand access to IVR messages on maize farming began in August and will continue through January. Viamo hosts the toll-free hotline and live web platform and dashboards for tracking caller statistics. IFPRI has begun designing the endline survey, which will be implemented using tablet computers in March (the growing season is September – February). IFPRI will carry out data analysis from April - July with a final report expected in July 2018. In August, DLEC will present conclusions at a learning event in Kampala for stakeholders, including the Ministry of Agriculture, USAID mission, USAID Digital Development Lab and the World Bank-supported Agriculture Cluster Development Project (ACDP) for Uganda.

Obstacles and Adaptations. When researchers returned for the second screening, participants were often not home (especially when couples were involved, one may be away for longer periods), leading to some attrition (about 9 percent).

Influence Scope and Scale. New donor-funded projects or public-sector extension system changes influenced by this engagement have the potential to reach more than 600,000 farmers in Uganda over the next four years. Presence of an in-country coordinator in Uganda (to be hired FY 18) and IFPRI will facilitate three influence pathways:

- DLEC staff will discuss the study’s results with the USAID mission in Uganda to follow up on its plans to use findings to inform design of new programs under its agricultural market systems strategy that incorporate gender-specific, ICT-enabled extension approaches. Discussions with the Digital Development Lab will explore sharing results with other missions in the Lab’s focus countries (Nepal, Cambodia and Ghana).
- Uganda’s new Directorate of Agricultural Extension Services within the Ministry of Agriculture, Animal Industries and Fisheries has signaled a role for digital extension within its future extension strategy. IFPRI’s ongoing engagement with the Directorate will facilitate dialogue to influence extension system reforms currently underway.
- Evidence from this field experiment is directly relevant to plans to integrate ICT-enabled extension into the World Bank’s ACDP and may suggest additional districts where the approach can be taken to scale. Influence is facilitated by DLEC’s collaboration with the World Bank Community of Practice for ICT in Agriculture.

1.2.5 Private-sector led extension (Market Engagement) (Nigeria)

In July, 2017, DLEC launched the first phase of an engagement in Nigeria, which, in response to the DLEC diagnostic, focuses on a private-sector-led extension model. The activity is part of a public-private partnership (Dairy Development Programme) implemented by FrieslandCampina WAMCO,

In July and August, DLEC trained 81 private and public-sector extension agents in production of short, informational and effective videos using targeted and localized content, and techniques for screening the videos and facilitating discussion on the content with producer groups. Of the people trained, 65 were public-sector extension agents (51 male and 14 female) and 16 were private-sector agents (11 male and 5 female) from two dairy processors, L&Z Integrated Farms and FrieslandCampina WAMCO. The goal of integrating the public-sector extension system into the approach is to make it more responsive to market signals and product standards. The agents trained in video-enabled extension and facilitation are using videos produced by the production teams to train female dairy producers in Oyo and Kano states in hygienic milking practices and cattle health. In FY 17, they trained 2,014 producers and plan to train a total of 15,000 using the localized and ICT-enabled advisory approach. A nearby photo shows DLEC training on dissemination and group facilitation skills to private and public extension agents in Kano state.

DLEC is finalizing its full engagement plan in Nigeria, which evolves from this activity and the diagnostic. It will focus on improving linkages between input markets and extension by improving the ability of private agro-dealers to aggregate demand for inputs to reduce demand-supply disparities and increasing capacity of a network of private agro-dealers’ to provide embedded extension services.

Lessons Learned from the Engagement Process
Near the end of FY 17, DLEC cancelled the engagement in Malawi due to a combination of factors related to both our project-level goals and delays. The evolution of our sharpened focus on influence pathways caused us to take a look at our portfolio overall and redirect funds to activities with the most potential for contributing to outcome-level targets.

Adjustments to workplan. DLEC will implement 10 engagements (rather than four) over the life of the project. DLEC evaluates engagement countries and opportunities based on a combination of factors: 1) clearly identified pathway for DLEC to influence actor(s) regarding adoption of practices that improve EAS program operations; 2) contribution to outcome indicator “number of households served by partners with improved EAS programs;” 3) a balanced portfolio in which all six EAS characteristics (according to the DLEC adapted best-fit framework) are represented; and 4) DLEC partner in-country presence or experience. The analysis and outlines of future engagements are based on the current landscape and will continue to evolve.

Next Steps
DLEC’s ongoing and new engagement activities will feature in-person events and online webinars to share learning with and influence other actors locally and globally. DLEC is working to develop new
engagements in five countries — Honduras, Nepal, Mali, Burma and Niger. DLEC will launch two engagements in the first half of FY 18 and two or three additional engagements by the end of FY 18. Engagement plans are summarized in Annex C.

OUTPUT 2: SHARING AND ADVOCACY OF EVIDENCE-BASED APPROACHES TO EAS STRENGTHENING

DLEC shares knowledge, evidence and best-fit practices from the project as well as the agricultural extension sector as a whole through global and country-level communities of practice. The forums convene diverse extension stakeholders, including agricultural producers, EAS providers, donors, policymakers and researchers to share expertise, findings and innovations to overcome obstacles and build capacity to reach more smallholder farmers with more effective, efficient, relevant and sustainable, EAS services.

To achieve lasting change in the countries in which we work, DLEC is fostering greater synergy between diagnostics, engagement activities and CoPs. Knowing our engagements will not reach scale in isolation, country-level COPs are the vehicle to turn the evidence we generate into tangible change carried out by in-country EAS actors. Bringing GFRAS on board as a full partner leverages a key network with the potential to translate DLEC’s small investments into big change. The Bangladesh CoP was launched at a September 2017 meeting to share results from the ongoing engagement with interested groups. An overview of progress to date is summarized in Table 4.

<table>
<thead>
<tr>
<th>Table 5. Progress against Output 2 Indicators</th>
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<tbody>
<tr>
<td><strong>Output 2: Sharing and advocacy of evidence-based approaches to EAS strengthening</strong></td>
</tr>
<tr>
<td>Number of regional or global conferences (non-USAID) for which DLEC influences agenda to include EAS</td>
</tr>
<tr>
<td><strong>Activity 2.1: Build community of practice for developing EAS capacity</strong></td>
</tr>
<tr>
<td>Number of instances of participation by individuals at knowledge sharing events coordinated and facilitated by DLEC</td>
</tr>
<tr>
<td>Number of registered and active DLEC global community of practice members (cumulative #) Total</td>
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</tbody>
</table>

Influencing the agenda of (non-USAID) global and regional conferences to include EAS is an indicator of success for this set of activities. During the reporting period, DLEC influenced inclusion of EAS on the agenda for three conferences in which team members participated:

- ICT4Ag conference, Washington D.C., June 23, 2017. DLEC Deputy Project Director Alex Dunlop and Digital Green’s Director for Agriculture Strategy, Karin Lion, presented DLEC learnings on ICT in EAS programs on two panels.
- ICT4Ag conference, Washington D.C., June 10, 2016. DLEC Deputy Project Director Alex Dunlop spoke on institutionalizing digital extension and integrating multiple ICT platforms.
In addition, David Spielman of IFPRI and Steve Franzel, senior EAS advisor to DLEC, hosted a think tank session on policies and programs to engage the private sector, women and youth in extension and advisory services at the USAID-sponsored Innovation for Agricultural Training and Education (InnovATE) symposium in Washington, D.C. in June, 2017. All conferences, including dates and locations, at which DLEC has presented are listed in Annex C.

Activity 2.1 Build Communities of Practice for Developing EAS Capacity

DLEC shares knowledge, evidence and best-fit practices from the project as well as from the agricultural extension sector as a whole through global and country-level communities of practice. CoPs are forums where diverse extension stakeholders, including agricultural producers, EAS providers, donors, policymakers and researchers, convene to share expertise, findings and innovations to overcome obstacles and build capacity to reach more smallholder farmers with improved EAS services.

Working with GFRAS country fora or other local partners, DLEC is building country-level CoPs in countries with active engagements. Although DLEC’s on-the-ground activities are the impetus, local stakeholders will come together to share their evidence and experience as well. The focus is on our guiding indicators — influencing stakeholders and reaching farmers with improved EAS services. By concentrating our influence-related efforts at the country level, we will catalyze action around country-specific goals shared by group members. Solutions and approaches will be shared between country-level COPs and the global COP (of which they form a part) through webinars, online forums and global resource partners.

2.1.1 Launch DLEC Community of Practice

DLEC launched the Global CoP at a side event of the Alliance for a Green Revolution Forum meeting in Nairobi, Kenya, September 4-9, 2016 at which participants supported establishing a CoP to enhance and link with existing relevant platforms (see nearby photo). Conference participation and social media have increased visibility for the Global CoP and attracted new members. Affiliations of the 265 members are broken down in Annex A.
DLEC coordinated with BAEN to launch the Bangladesh CoP on September 12, 2017, with a one-day workshop in Dhaka titled “Food for Thought: Exploring Agricultural Innovations in Bangladesh to Improve Food Security” (see Activity 2.1.2). BAEN is the convener of this CoP.

2.1.2 Organize and facilitate CoP and other learning events
DLEC global CoP events advance conversations on broad topics across countries and regions; provoke discussion and change perceptions about extension as an engine of economic growth; and bring donors, implementers and researchers together to learn from each other and share experiences. Following the launch of the global CoP in September, DLEC hosted a webinar (February 17, 2017) to share key results from initial diagnostic studies and brainstorm ideas for collaboration.

The Bangladesh CoP launch workshop brought together 96 development practitioners, donors, government and private sector representatives to showcase innovations and share insights and learning. The workshop generated a lot of interest, with the most popular session being the interview with the engagement’s key players — the DAE agricultural officer, the Loop aggregator (or resource farmer) and a Loop farmer. A key takeaway from the day is that, while a variety of innovative activities are being implemented in Bangladesh by different types of actors, most of them are on a small scale and not coordinated.

A nearby photo shows a panel discussion from that event.

A survey of workshop participants asked “What is the likelihood that you will tell a colleague or someone in your professional network about a new skill or technology you heard about through the CoP?” Respondents replied on a 10-point rating scale from 0 (not at all likely) to 10 (extremely likely). Most replies fell in the mid-range with other respondents split nearly evenly between “promoters” and “detractors,” resulting in a net promoter score of “neutral” for the event. Follow-up conversations will gather qualitative information on the top challenges not addressed by the workshop (from the point of view of “detractors”) and use the feedback to continually improve CoP interactions. DLEC will work to improve response rates as well as scores by interviewing leaders and community voices prior to a convening to take cues into the next event design, and make it easy for CoP members to promote/spread event content with social media.

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5 The 38 responses from the workshop are broken out as follows: promoters (rate 9-10): 9 people (24%); passively satisfied (rate 7-8): 18 people (47%); and critical detractors (rate 0-6): 11 people (29%). “Promoters” are the group likely to promote the content beyond the group that was present. The mid-range group is satisfied with the content but less likely to spread the learning. Respondents who score an event below a 6 are considered to be unsatisfied. The net promoter score, which falls within a range of -100 to 100 and was -5 in this instance, is calculated by subtracting the percentage of “critical detractors” from the percentage of “promoters.” Given wide disparities between this event and a recent webinar, DLEC is working to reconcile score calculations from different groups/events.
2.1.3 Launch web-based knowledge management platform

DLEC has selected a software solution to host its knowledge management platform that will both engage country-level CoPs and facilitate transfer of hosting responsibilities to another entity after DLEC ends. Although the platform will launch about 30 days after we had originally intended, this best value for money option will be up and running in time for the annual CoP event in December. Until the launch, CoP members continue to receive updates and interact via an email listserv.

2.1.4 Coordinate with global, regional and national EAS fora

Leveraging existing global, regional and national fora has been key to increasing interest and membership for DLEC and the CoP. Close collaboration with GFRAS has helped DLEC to identify extension experts for diagnostic studies and to obtain support for organizing stakeholder meetings and interviews that have informed diagnostic studies. DLEC issued a subaward to GFRAS to organize and host DLEC CoP events and leverage GFRAS’ convening power among EAS stakeholders in Africa, Asia and Latin America. The goal of incorporating GFRAS advocacy networks, particularly around country-level engagements, is to coalesce local stakeholders around translating proof of concept engagements, learning and diagnostic recommendations into advocacy for wider systemic change. At the GFRAS Annual Meeting (September 13, 2017, in Townsville, Australia) over 300 people attended a policy dialogue chaired by David Nielson from World Bank to discuss the importance of improved EAS policies.

The DLEC team has continued discussions with the Transforming Extension and Advisory Services in a Digital World Initiative, comprised of the Bill & Melinda Gates Foundation, USAID and the World Bank. The Initiative promotes EAS in line with three principles: pluralistic EAS provision; leveraging and integrating ICT; and increasing accountability by being demand-driven, market-driven, and having a strong focus on monitoring and evaluation including use of common metrics. DLEC’s own mandate — to measurably improve extension programs, policies and service delivery by influencing country-based actors — complements and reinforces these principles. We continue to engage with donors involved in the Initiative, participate in meetings, and invite them to DLEC events to help shape the content and priorities of three important donors in the EAS ecosystem, and thereby to influence investments in EAS. The first annual DLEC CoP event, in December 2017, will involve a panel discussion of donors, including Bill & Melinda Gates Foundation, USAID and the World Bank, as well as representatives from government ministries in DLEC engagement countries.

Next Steps

DLEC will continue to recruit CoP members and champions and host events, including the first annual CoP meeting in Washington, D.C., December 12-13, 2017, co-hosted by the Feed the Future Integrating Gender and Nutrition within Agricultural Extension Services (INGENAES) project.

DLEC partner GFRAS will host a regional roundtable at the African Forum for Agricultural Advisory Services Africa-wide Extension Week in Durban on November 4, 2017. DLEC will share evidence from the project’s diagnostics and experiences from participants on modern, evidence-based approaches to relevant, effective and sustainable extension systems for Africa. The discussion will convene approximately 30 key extension stakeholders from academia, research, education, extension practice and policy from all regions of Africa.

Each country-level CoP will host meetings on EAS topics, serve as platforms for sharing evidence, and generate an agenda for change participants seek in their respective countries. In-person meetings will be supported by online discussion fora moderated by DLEC. Engagement country coordinators will meet with stakeholders regularly to share insights, create synergies with ongoing efforts, form
linkages between actors and leverage relevant events to present findings to participants interested in
designing activities and investments that improve EAS program operations. For instance, DLEC will
participate in the USAID workshop on the State of Ugandan Agriculture in February 2018; and
DLEC and BAEN will co-sponsor four meetings to discuss innovations and develop an innovations
catalogue. In Ethiopia and Uganda, DLEC is identifying existing communities and on which to build
country-level CoPs, as well as organizations to convene the CoPs, leveraging GFRAS country fora
where possible.

DLEC will host webinars approximately every six weeks to present project findings as well as
specific topics presented by DLEC and its resource partners. At the first FY 18 webinar (October 23
and 27 in Spanish and English respectively), GFRAS will present findings from the Honduras
diagnostic. The Bangladesh in-country coordinator will discuss Loop and market-oriented extension
approaches in November; future webinars will feature other engagements.

DLEC will contribute input to a USAID foreign service officer training course (Ag Core Course), in
December 2017 in Washington, D.C. Its purpose is to explain how EAS can be integrated into
USAID mission programming, highlighting examples of institutionalization, governance,
performance management and market engagement. DLEC will collaborate with USAID to design an
interactive map of activities and resources and provide information quarterly for map updates.

PROJECT MANAGEMENT AND ADMINISTRATION

Staffing and short-term technical assistance. In the last quarter, DLEC hired a country
engagement manager and a finance manager. The finance manager provides financial support and
analysis including: leading development, execution and review of annual DLEC operating budgets,
expense reconciliation and burn rate analysis; assisting with scenario planning; and preparing any
budget modifications or realignment requests. The country engagement manager supports the
scoping and design of new DLEC engagements. These two staff persons join the core team —
composed of the Project Director, Deputy Project Director, and Program Manager — working as an
integrated team in three offices. The core team is supported by Digital Green’s Director of Global
Agriculture Strategy, Communications & Advocacy Manager, Senior Manager for Monitoring,
Evaluation and Learning, and by Digital Green’s technology and training teams to design and
implement engagement activities. Extension expertise has been provided by a cadre of short-term
senior extension experts, a senior extension expert, Steve Franzel, and the project management
committee (PMC). We have contracted 15 experts for short-term work on diagnostics.

Partners. IFPRI leads implementation of the Ethiopia and Uganda engagements and provides
technical leadership for Activity 1.1 (diagnostics). DLEC will leverage CARE’s existing programs in
focus countries and launch a CARE-led engagement in FY 18 Q1. DLEC will leverage GFRAS’
strong networks and convening experience to coalesce country-level CoPs and increase the visibility
and activity of the global and country-level CoPs. We continue to explore options with potential
new resource partners as we scope engagements.

The Project Management Committee (PMC) is responsible for overall project coordination and
partner engagement and provides a channel to ensure that partner institutions’ resources and
learning from other projects are effectively leveraged to benefit DLEC. The PMC meets twice a
month. DLEC’s AOR and alternate AOR join the PMC meeting quarterly to review progress against
indicators, identify gaps or obstacles, and iterate the approach accordingly. The PMC coordinates
selection of resource partners when new opportunities arise, aiming to maintain maximum
transparency while prioritizing efficiency and responsiveness. The PMC consists of DLEC’s core management team from Digital Green, Kristin Davis and David Spielman (IFPRI), Eduardo Viera (CARE), and Natalie Ernst (GFRAS).

**DLEC’s Technical Advisory Committee (TAC)** is a multi-disciplinary advisory committee of experts in agriculture economics, gender, nutrition, digital solutions and ICT for agriculture, public sector extension and research-extension linkages. We met with the TAC in July 2016 to review our adapted best-fit framework, sent a progress update to the group at the end of December 2016 and met in-person and virtually in June 2017 to update the TAC on project activities and the influence pathways strategy.

**Spending.** In the period May 2016 - September 2017, DLEC spent 82 percent of its FY 17 budget. Initial underspending was due to start-up and ramp-up time, hiring staff, civil unrest in Ethiopia that delayed start of the RCT, and slower than expected launch of the Malawi and Bangladesh engagements. Since the summer, DLEC spending has been steady with the Bangladesh, Ethiopia and Uganda engagements implemented in accordance with the workplan. Due to the gaps in available data and an effort to conduct diagnostics that balance stakeholder demand with DLEC’s effort to generate global learning, we needed to involve more consultants’ time than expected on the diagnostic reports, making our spend on that line item comparatively higher than other lines.

**Next Steps**

**Staffing.** DLEC plans to hire in-country coordinators in Uganda, Nigeria and other engagement countries. Our experience in Bangladesh has demonstrated that the continual ground presence of a country coordinator generates momentum for the engagement, the country-level CoP and for influence among other donors, implementers and EAS providers not directly connected to the engagement. In-country coordinators’ responsibilities include: sharing learning and evidence with and creating linkages between local EAS stakeholders, donors, partners and experts; monitoring and supporting engagements; and mobilizing country-level CoPs.

**Project Management.** The TAC will meet in January, either in person or virtually, to review progress on engagements and diagnostic findings. To ensure operational and legal support for the DLEC engagement, Digital Green began the process of registration as a non-profit entity in Bangladesh, which should be complete by FY 18 Q2. In cases of potential associate awards, the PMC will share a summary of opportunities with resource partners, solicit interest, assess partners’ capabilities, and decide whether and how to engage them. Where DLEC develops multiple activities, we may develop country-level PMCs anchored by the country coordinator to facilitate coordination and include local actors in decision making.

**Partnerships.** Although we have a group of resource partners on our team, we may need to bring on additional partners with specific expertise, for example in value chain development, private sector extension models or livestock extension, based on engagement design. We will leverage the presence and networks of our core partners to launch engagements, mobilize country-level CoPs and connect influence pathways. DLEC increasingly collaborates with the University of Illinois at Urbana-Champaign and INGENAES, and is in discussions with IFDC on potential collaboration.

**CONCLUSION**

DLEC is well-positioned to achieve its stated purpose: to “sustainably improve EAS in Feed the Future and aligned countries by influencing the design and implementation of EAS programming,”
as indicated by our outcome-level targets of 50 partners adopting recommendations, and — through these organizations — reaching one million households with improved EAS services. We are achieving these goals by:

- making diagnostics more targeted and action-oriented to focus on particular stakeholders’ (both USAID missions and other actors) areas of interest and recommendations for implementation;

- implementing 10 engagements (6 more than originally planned), chosen and designed based on our outcome-level targets;

- catalyzing action to take up learning and recommendations generated by the engagements through country-level CoPs; and

- closely coordinating these three elements focused on defined influence pathways.

In FY 18, we will share results more broadly with the DLEC Global CoP through our first annual meeting and a series of webinars and regional events. To maximize returns from investments in diagnostics, we will follow up on recommendations using an approach tailored to each country and the diagnostic’s audience. Our focus for catalyzing action will focus on the country level, following our model in Bangladesh, which is coalescing stakeholders around a successful demonstration that responds to specific, identified gaps.
## ANNEX A: INDICATOR TABLE

<table>
<thead>
<tr>
<th>Level of Result</th>
<th>Indicator</th>
<th>Target FY 17</th>
<th>Actual FY 17</th>
<th>Target LOP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Purpose:</strong> Sustainably improve EAS in Feed the Future and aligned countries by influencing the design and implementation of EAS programming</td>
<td>1. Number of partners adopting recommendations to improve EAS program operations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Donor organization (donor, country, EAS characteristic)</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>• Public sector ministry (country, EAS characteristic)</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>• NGO implementer (local/international, country, EAS characteristic)</td>
<td>2</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>• Private sector firm (country, EAS characteristic)</td>
<td>1</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Donor organization (donor, country, EAS characteristic)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ministry of Agriculture, Republic of Liberia (multiple)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dhaka Ahsania Mission (local NGO, Bangladesh, market engagement)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sahel Capital Advisors (Nigeria, advisory methods)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>L&amp;Z Integrated Farms (Nigeria, advisory methods)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FrieslandCampina WAMCO (Nigeria, advisory methods)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td><strong>Outcome:</strong> Integration of evidence-based approaches to relevant, effective and sustainable EAS systems into agriculture sector programming</td>
<td>2. Number of households served by partners with improved EAS programs (listed by influence point of origin)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bangladesh engagement (new households)</td>
<td>-</td>
<td>1,197</td>
<td>4,000</td>
</tr>
<tr>
<td></td>
<td>• Nigeria engagement (new households)</td>
<td>-</td>
<td>2,014</td>
<td>15,000</td>
</tr>
<tr>
<td></td>
<td>New households total</td>
<td>0</td>
<td>3,211</td>
<td>1,000,000</td>
</tr>
<tr>
<td><strong>Output 1:</strong> Generation and documentation of evidence-based approaches to EAS strengthening</td>
<td>3. Net promoter score for CoP participants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baseline</td>
<td>N/A</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>1. Number of diagnostics, studies and other publications finalized and shared</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• EAS diagnostics (desk studies, in-depth EAS system assessments, diagnostics, stakeholder meeting reports) or workshop summaries</td>
<td>10</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>• Engagement-related publications</td>
<td>0</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>• Journal articles</td>
<td>1</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>11</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td><strong>Output 2:</strong> Sharing and advocacy of evidence-based</td>
<td>2. Number of engagements designed and initiated</td>
<td>4</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>1. Number of regional or global conferences (non-USAID) for which DLEC influences agenda to include EAS (distinct events)</td>
<td>2</td>
<td>3</td>
<td>10</td>
</tr>
</tbody>
</table>
### Approaches to EAS Strengthening

2. Number of instances of participation by individuals at knowledge sharing events coordinated and facilitated by DLEC
   - Community of Practice/stakeholder workshop events
     - Government/policy making organization
     - Private/for-profit implementer
     - Local/Community-based NGO
     - Research/university-based organization
     - Donor/funder/social investor
     - International NGO members
     - Individual contributor/other
     - Total member

<table>
<thead>
<tr>
<th></th>
<th>300</th>
<th>221</th>
<th>2,460</th>
</tr>
</thead>
</table>

3. Number of registered DLEC CoP members (by organization type) (cumulative #)
   - Government/policy making organization
   - Private/for-profit implementer
   - Local/Community-based NGO
   - Research/university-based organization
   - Donor/funder/social investor
   - International NGO members
   - Individual contributor/other
   - Total member

<table>
<thead>
<tr>
<th>Organization Type</th>
<th>24</th>
<th>35</th>
<th>12</th>
<th>62</th>
<th>35</th>
<th>97</th>
<th>-</th>
<th>250</th>
</tr>
</thead>
</table>

### Country Engagements

EG.3.2.1: Number of individuals who have received USG-supported short-term agricultural sector productivity or food security training
   - Malawi engagement (cancelled)
   - Uganda engagement (farmers)
     - Male
     - Female
   - Bangladesh engagement (producers/market aggregators)\(^7\)
     - Male
     - Female
   - Nigeria engagement (private & public sector EAS provider)
     - Government/public sector EAS provider
     - Male
     - Female
     - Private sector EAS provider
     - Male
     - Female
     - Sub-total Nigeria

<table>
<thead>
<tr>
<th>Country</th>
<th>Male</th>
<th>Female</th>
<th>1,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malawi</td>
<td>20</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Uganda</td>
<td>1,100</td>
<td>4,310</td>
<td>2,900</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>20</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Nigeria</td>
<td>65</td>
<td>14 f</td>
<td></td>
</tr>
</tbody>
</table>

\(^6\) Data disaggregation is pending verification

\(^7\) Indicator was updated in the FY 18 work plan to be better reflect who is trained. In Bangladesh, aggregators are trained on the Loop technology (not farmers).
### EG.3.2-17: Number of farmers and others who have applied improved technologies or management practices with USG assistance (value chain actor/technology type/m/f)

<table>
<thead>
<tr>
<th>Engagement</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda engagement (farmers) (to be assessed FY 18)</td>
<td>1,000</td>
<td>1,174</td>
<td>4,000</td>
</tr>
<tr>
<td>Bangladesh engagement (farmers/marketing and distribution)</td>
<td>1,000</td>
<td>1,174</td>
<td>1,174 m</td>
</tr>
<tr>
<td></td>
<td>23 f</td>
<td>23 f</td>
<td>4,000</td>
</tr>
<tr>
<td>Nigeria engagement</td>
<td>-</td>
<td>-</td>
<td>275</td>
</tr>
<tr>
<td>Subsequent engagements not yet started</td>
<td>-</td>
<td>-</td>
<td>6,625</td>
</tr>
<tr>
<td>Total (LOP total included engagements not yet started)</td>
<td>1,000</td>
<td>1,174</td>
<td>12,050</td>
</tr>
</tbody>
</table>

### EG.3.2-18: Number of hectares under improved technologies or management practices with USG assistance

<table>
<thead>
<tr>
<th>Engagement</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda engagement (to be assessed FY 18)</td>
<td>0</td>
<td>-</td>
<td>960</td>
</tr>
<tr>
<td>Subsequent engagements not yet started</td>
<td>-</td>
<td>-</td>
<td>500</td>
</tr>
<tr>
<td>Total (LOP total included engagements not yet started)</td>
<td>0</td>
<td>-</td>
<td>1,460</td>
</tr>
</tbody>
</table>

### EG.3.2-4: Number of for-profit private enterprises, producer organizations, water users associations, women’s groups, trade and business associations, and community-based organizations (CBOs) receiving USG food security related organizational development assistance

<table>
<thead>
<tr>
<th>Engagement</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh engagement (CBO)</td>
<td>20</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>Nigeria engagement (for-profit enterprises)</td>
<td>-</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Subsequent engagements not yet started</td>
<td>-</td>
<td>-</td>
<td>152</td>
</tr>
<tr>
<td>Total (LOP total included engagements not yet started)</td>
<td>20</td>
<td>4</td>
<td>202</td>
</tr>
</tbody>
</table>

### EG.3.2-20: Number of for-profit private enterprises, producer organizations, water users associations, women’s groups, trade and business associations and community-based organizations (CBOs) that applied improved organization-level technologies or management practices with USG assistance

<table>
<thead>
<tr>
<th>Engagement</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh engagement</td>
<td>15</td>
<td>1</td>
<td>37</td>
</tr>
</tbody>
</table>

Relevant FtF indicators will be used for each engagement and disaggregated according to FtF indicator definitions.

---

8 Trainings are delivered to aggregators to build individual capacity to function as aggregators; as such, the training does not raise the organizational capacity of farmer groups. Two DAM staff also participated in aggregator trainings as representatives of the organization. Benefits accrued to the organization by building its capacity to implement market engagement activities.
<table>
<thead>
<tr>
<th>Description</th>
<th>Nigeria</th>
<th>-</th>
<th>3</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsequent engagements not yet started</td>
<td>-</td>
<td>-</td>
<td></td>
<td>82</td>
</tr>
<tr>
<td>Total (LOP total included engagements not yet started)</td>
<td>0</td>
<td>4</td>
<td></td>
<td>125</td>
</tr>
</tbody>
</table>

- Nigeria engagement (for-profit enterprises)
ANNEX B: PUBLICATIONS

All completed DLEC diagnostics can be found at [http://www.digitalgreen.org/resources-dlec/](http://www.digitalgreen.org/resources-dlec/)

<table>
<thead>
<tr>
<th>Country and Diagnostic Type</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh Stakeholder Workshop Summary</td>
<td>February 2017</td>
</tr>
<tr>
<td>Bangladesh: Desk Study of Extension and Advisory Services</td>
<td>May 2017</td>
</tr>
<tr>
<td>Honduras: In-depth Assessment of Extension and Advisory Services</td>
<td>March 2017</td>
</tr>
<tr>
<td>Liberia: Desk Study of Extension and Advisory Services</td>
<td>June 2017</td>
</tr>
<tr>
<td>Malawi: Desk Study of Extension and Advisory Services</td>
<td>June 2017</td>
</tr>
<tr>
<td>Nigeria: In-depth Assessment of Extension and Advisory Services</td>
<td>March 2017</td>
</tr>
</tbody>
</table>

Pending Country and Diagnostic Type
- Guinea: Desk Study of Extension and Advisory Services
- Mali: Desk Study of Extension and Advisory Services (Targeted Assessment)
- Mozambique: Desk Study of Extension and Advisory Services
- Rwanda: Desk Study of Extension and Advisory Services (Targeted Assessment)
- Senegal: Desk Study of Extension and Advisory Services

Conference Proceedings


Engagement-Related Publications


DLEC-Related Communications


ANNEX C: ENGAGEMENT ACTIVITIES

Advisory Methods and Governance Impact Evaluation (Ethiopia)

Start-end dates: February 2017 - May 2018

Summary. International Food Policy Research Institute (IFPRI) is implementing a randomized controlled trial (RCT) to assess the impact and cost-effectiveness of use of ICT in extension in terms of farmer productivity, food security and gender inclusiveness. The study is also assessing how the ICT platforms are institutionalized within extension agents’ existing workflows. Results will highlight effective approaches and adaptations that improve performance. The RCT aims to: provide evidence on whether integration of ICT improves public extension system performance, as measured by use of improved practices by farmers and corresponding changes in yields, income and household welfare; compare adoption of improved agricultural practices in households where both spouses view videos compared to those in which only one does so; and assess whether introducing technology into the EAS delivery channel has a positive influence on extension agent motivation.

Opportunities Addressed. Ethiopia’s extension system has undergone large programmatic changes during the past two decades. Recent reforms highlight the Government of Ethiopia’s (GoE) commitment to decentralizing management; introducing data-driven, results-based practices; and leveraging partner organizations in civil society and the development community. The GoE’s investments in training 73,000 agricultural extension agents and constructing 18,000 farmer training centers in the past 10 years reflect its effort to accelerate agricultural growth in keeping with the Growth Transformation Plan, its guiding strategy for economic growth and poverty reduction. Since late 2014, Digital Green has been working with the Agricultural Extension Directorate of the Ministry of Agriculture and Natural Resources, Regional Bureaus of Agriculture in four regions (Amhara, Oromia, Tigray and Southern Nations Nationality People’s Region), and the Agricultural Transformation Agency to improve the efficacy of the public extension system through a community-centric and cost-effective ICT-enabled approach. Digital Green is now working to institutionalize and scale the ICT-enabled extension approach within the public system.

Influence Scope and Scale. Providing evidence on the results and cost-effectiveness of ICT-enabled extension, in contrast to the traditional approach, has the potential to lead to greater buy-in, investment and integration of the ICT approach across additional zones and regions. Dedicating human and financial resources to scale the approach throughout the country could reach as many as 9 DLEC is contributing to the first phase of the two-year RCT, which ends in May 2018. As per the study design, continuation to the second year will be based on IFPRI’s analysis and recommendation. Final results from the two-year study will be available May 2019.

9 DLEC is contributing to the first phase of the two-year RCT, which ends in May 2018. As per the study design, continuation to the second year will be based on IFPRI’s analysis and recommendation. Final results from the two-year study will be available May 2019.
350,000 farmers with improved EAS services by May 2021. The learning also provides a model for institutionalization of the ICT-enabled approach to the broader EAS community in-country and regionally.

**Market Engagement (Bangladesh)**

**Start-end dates:** April 2017 - March 2018

**Summary.** The Bangladesh engagement activity, implemented by Digital Green in coordination with the USAID Agricultural Extension Support Activity (AESA) in Jessore and Khulna regions, demonstrates a model whereby farmers’ market information and market access needs are sustainably (or near-sustainably) met by building the capacity of local “resource” farmers to provide market-oriented agricultural advisory services. A long-term goal is to develop the resource farmers into market entrepreneurs and establish a viable business model for their services. Because farmers pay for a portion of the services, the pilot provides an opportunity for participating farmer producer groups to sustain themselves after AESA concludes in February 2018.

**Gaps and Opportunities Addressed.** Although many public and private organizations in Bangladesh provide agricultural extension services to assist farmers to increase farm yields, higher production fails to translate into income increases; farmers are left on their own to deal with unregulated markets dominated by middlemen. Poor road networks and high transportation costs result in a proliferation of actors between farm-gate and markets, making farmers vulnerable to market manipulation. With small farm sizes, inadequate cold chain infrastructure and lack of collective bargaining power to negotiate better prices, smallholder farmers either sell their produce at farm-gate for low prices or take time from their farms to transport their own small quantities of produce to market. High margins or commissions for a multitude of middlemen result in high prices for consumers and low incomes for farmers. Although the Department of Agricultural Marketing has a mandate to improve the market system for farmers, it is understaffed and only present at the district level, limiting its reach.

This activity is building the capacity of farmers to bridge the gap left by public extension and provide both market information and market access services to maximize returns for smallholder farmers. Services include providing information about real-time market prices and direct aggregation, transport and marketing services. The country’s high mobile penetration makes it possible to integrate ICTs to make transactions transparent and incorporate farmer feedback.

**Influence Scope and Scale.** DLEC’s influence of project implementers, donors and the public sector in Bangladesh, show a promising path to scale activities to reach 600,000 – 800,000 farming households. The Bangladesh Department of Agricultural Extension has requested that DLEC train 420 extension officers in digital extension training of trainer courses. The trainees will each train field-level extension agents with potential to reach more than 500,000 farming households collectively. Two ongoing projects funded by the Danish International Development Agency and the Netherlands are interested to incorporate DLEC’s demonstrated approach to creating sustainable market linkages for smallholder farmers, potentially reaching 100,000 farmers and 6,000 farmers respectively. The World Bank is interested in incorporating Digital Green’s video-enabled
approach to extension service provision in its National Agriculture Technology Program in Bangladesh, potentially reaching 100,000 farming households. ACDI/VOCA is exploring incorporating the video-enabled extension approach into its work in Bangladesh, where it is implementing two ongoing USAID-funded projects with potential to reach an additional 100,000 farmers over the next year.

**Community Engagement and Advisory Methods (Uganda)**

**Start-end dates:** April 2017 - September 2018

**Summary.** Through this engagement, DLEC is studying how the medium for agricultural extension message delivery and the gender of the messenger affect the message’s effectiveness. Information gaps — either from lack of access to information or incomplete or misunderstood information — result in suboptimal choices. Where farmers lack access to EAS services with effective advisory methods, they may miss out on the benefits of modern technology and improved agricultural practices. In Uganda, previous research as part of the Policy Action for Sustainable Intensification of Cropping Systems (PASIC) project suggests that a lack of information about the existence, use and profitability of modern technologies and recommended practices constraints technical change among rice farmers. Given that extension services in many countries tend to employ male extension workers and target male household heads, little is known about what can be achieved by changing the gender of the information provider(s) and its targeted recipient(s).

**Gaps and Opportunities Addressed.** At the co-creation workshop hosted by USAID in March in Kampala, in which DLEC participated, extension (“farmer information”) was identified as a key component to trigger systems change.

**Influence Scope and Scale.** New donor-funded projects or public-sector extension system changes influenced by this engagement have the potential to reach more than 600,000 farmer households in Uganda over the next four years. IFPRI’s ongoing engagement with the Directorate of Agricultural Extension Services within the Ministry of Agriculture, Animal Industries and Fisheries will facilitate dialogue to influence extension system reforms currently underway with a role for digital extension (potential reach 200,000 farmer households). Evidence from this field experiment is directly relevant to plans to integrate ICT-enabled extension into the World Bank’s Agriculture Cluster Development Project and may suggest additional districts where the approach can be taken to scale (potential reach 200,000 farmer households). The USAID mission in Uganda plans to use findings to inform design of new programs under its agricultural market systems strategy that incorporate gender-specific ICT-enabled extension approaches (potential reach 200,000 farmer households).

**Private-sector led extension (Market Engagement) (Nigeria)**

**Summary.** DLEC is exploring opportunities to work with networks of private agro-dealers to improve linkages between input markets and extension by improving the ability of private agro-dealers to aggregate demand for inputs to reduce demand-supply disparities. Building on its work with private dairy processors in Nigeria, DLEC plans to train public sector extension agents and private agro-dealers to provide effective and relevant extension services. This processor-led model...
integrates the public-sector extension system in order to foster its sensitivity to market signals and product standards. Activities will be implemented by Digital Green. The EAS framework area addressed is market engagement.

**Gaps and Opportunities Addressed.** Inefficiencies in the aggregation of information on the demand for inputs from farmers is one of the main constraints in the agriculture sector in Nigeria. Another significant gap is that between the provision of inputs and the extension information to help farmers not only use the correct amount of inputs but also the accompanying good agricultural field-level practices.

**Influence Pathways and Scale.** Training private and public sector EAS providers has the potential to reach 75,000 farming households in Nigeria.

**Planned Engagements**

DLEC is scoping and planning engagements in Honduras, Mali, Nepal, Burma and Niger, as summarized below.

**Honduras**

**Summary.** The engagement will build on the DLEC diagnostic’s recommendations for strengthening the local extension system in Honduras. It will be implemented by CARE in conjunction with the Food Security project in the Dry Corridor, a Honduran government initiative developed through the Honduras Strategic Investment Office (INVEST-H) within the framework of the multi-donor Alliance for the Dry Corridor to improve agricultural productivity and livelihoods of vulnerable populations. Activities could directly reach 6,000 vulnerable households in the departments of Choluteca, Francisco Morazán and El Paraiso.

**Gaps and Opportunities Addressed.** Explore a new model for local EAS service planning, delivery and monitoring by municipal associations; increase coordination and supervision of EAS by the department of science and technology within the Ministry of Agriculture.

**Influence Pathways and Scale.** Government of Honduras. There is potential to scale to reach the 12,000 beneficiaries of the Food Security project in the Dry Corridor.

**Mali: ICT tools to reach remote populations**

**Summary.** DLEC is exploring linkages with two Feed the Future projects (Livestock for Growth and Mali Livestock Technology Scaling Program) as well as the livelihoods component of the Food for Peace project (Harande) implemented by CARE. DLEC’s value add to the ongoing projects would be to develop and train livestock producers using IVR for mobile to deliver extension content to remote and hard-to-reach populations. The engagement, implemented by CARE, could directly reach 65,000 livestock producers (more than 50 percent women). The primary EAS framework areas addressed are advisory methods and livelihoods strategies.

**Gaps and Opportunities Addressed.** Integrate use of sustainable and inclusive EAS ICT tools to improve advisory method reach and effectiveness for high-mobility agro-pastoral and pastoral populations and low-security geographies.

**Influence Pathways and Scale.** USAID and government of Mali, by increasing use of mobile technology to reach remote populations. EAS providers and project implementers who use the technology could potentially scale the approach to reach approximately 270,000 households.
Nepal: Linking private and public extension

Summary. DLEC is exploring linkages with the USAID Knowledge-Based Integrated Sustainable Agriculture in Nepal (KISAN II), a market-led agricultural value chain development project. DLEC’s role would be to establish linkages between private and public extension service providers to increase coordination between public EAS providers and the market-based approach used in KISAN. The primary EAS framework area addressed is organizational & management capacities & cultures. Activities will be implemented by Digital Green and could include training and technical assistance for public extension agents (150) in agricultural productivity topics and for for-profit enterprises or agro-dealer networks (10) in food security-related or organizational development topics.

Gaps and Opportunities Addressed. Increased collaboration between public extension and market-based extension and value chain activities.

Influence Pathways and Scale. Public extension system, private enterprises or agro-dealer networks, USAID. Agents and organizations trained by DLEC have the potential to reach 150,000 - 200,000 farmer households.

Burma: Improve research-extension linkages

Summary. DLEC is exploring collaboration with Michigan State University, implementer of an ongoing USAID project conducting trials using participatory on-farm research methods to test and share new information for new varietals. DLEC’s role would be to document a pathway to adoption by the Ministry of the research method approach and provide technical assistance to the Ministry to adopt it. The primary EAS framework area addressed is organizational & management capacities & cultures. Farmers directly reached by this engagement would be research trial participants at three demonstration sites.

Gaps and Opportunities Addressed. Lack of trust among farmers of public extension agents among farmers and the Ministry’s ability to understand and meet farmers’ needs could be improved with a more inclusive approach to research and the application of new varietals.

Influence Pathways and Scale. Government of Burma Ministry of Agriculture, Livestock and Irrigation. Indirect reach (scale) is a portion of Burma’s 2.9 million farming households, depending on the degree to which the Ministry not only adopts more participatory research methods, but also gains farmers’ trust.

Niger

Summary. DLEC is exploring partnering with the four video production hubs developed by the SPRING project in Maradi and Zinder regions that provide video production services on nutrition and agriculture topics. The production hubs have worked in 248 villages and have a base of awareness on which to build. The engagement could provide project implementers (USAID and other donor-funded projects) with locally produced extension communication materials for difficult-to-reach populations in Niger on topics such as nutrition-sensitive agriculture, good agriculture practices for field and livestock, and resilience topics.

Gaps and Opportunities Addressed. Provide effective extension services to difficult to reach populations.

Influence Pathways and Scale. USAID mission, Millennium Challenge Corporation Water for Agriculture and Livestock Compact.
## ANNEX D: CONFERENCE PARTICIPATION

<table>
<thead>
<tr>
<th>Conference</th>
<th>Date &amp; Location</th>
<th>DLEC presenter</th>
<th>Topic focus</th>
<th>Attendance</th>
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</thead>
<tbody>
<tr>
<td>ICT4Ag</td>
<td>June 23, 2017; Washington, D.C.</td>
<td>Alex Dunlop (panel) and Karin Lion (panel)</td>
<td>Seeding &amp; Scaling Digital Extensions Services&quot; DLEC learning on ICT in EAS</td>
<td>36</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>How We Can Embrace Digitally-Enabled, Data-Driven Business Models</td>
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<tr>
<td>Innovation for Agricultural Training and Education (InnovATE) symposium</td>
<td>June 8-9, 2017; Washington, D.C.</td>
<td>David Spielman (IFPRI) and Steve Franzel (EAS advisor) (think tank session)</td>
<td>Policies and programs to engage the private sector, women and youth in</td>
<td>17</td>
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<td></td>
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<td>extension and advisory services</td>
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<tr>
<td>ICT4D</td>
<td>May 15, 2017; Hyderabad, India</td>
<td>Karin Lion (panel discussion)</td>
<td>“When advocacy works: Influencing through ICT and grassroots organizations”</td>
<td>20</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Use of ICT to increase reach, scale, transparency, quality and cost-effectiveness, inclusivity and accountability of EAS systems</td>
<td></td>
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<tr>
<td>Association for International Agricultural Extension Education</td>
<td>April 24-28, 2017; Minneapolis, Minnesota</td>
<td>Kristin Davis, DLEC project director</td>
<td>Best-fit framework - an effective tool for designing &amp; analyzing an EAS system</td>
<td>25</td>
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<tr>
<td>ICT4Ag</td>
<td>June 10, 2016; Washington, D.C.</td>
<td>Alex Dunlop</td>
<td>Institutionalizing ICT-enabled extension (Lightning Talk); Integrating multiple ICT platforms (panel discussion)</td>
<td>100</td>
</tr>
</tbody>
</table>
ANNEX E: DLEC-HOSTED EVENTS

Event: Bangladesh CoP launch and engagement workshop  
Date & Location: September 12, 2017; Dhaka, Bangladesh  
Topic focus: Exploring Agricultural Innovations in Bangladesh to Improve Food Security  
Attendance: 96 participants

Event: Global CoP webinar  
Date & Location: February 17, 2017; virtual  
Topic focus: Key results from initial diagnostic studies and paths for collaboration  
Attendance: 30 participants. Video recording viewed 52 times

Event: Stakeholder Workshop (with BAEN)  
Date & Location: December 1, 2016; Dhaka, Bangladesh  
Topic focus: Identify EAS system gaps and opportunities in Bangladesh (diagnostic-relate)  
Attendance: 54 participants

Event: Global CoP launch (Alliance for a Green Revolution Forum parallel event)  
Date & Location: September 4-9, 2016; Nairobi, Kenya  
DLEC presenter: Kristin Davis, Rikin Gandhi  
Topic focus: A Community of Practice for Agricultural Extension and Advisory Services  
Attendance: 41 participants

ANNEX F: ADAPTED BEST-FIT FRAMEWORK FOR DESIGNING AND ANALYZING EXTENSION AND ADVISORY SERVICES

DLEC uses the best-fit adapted framework (Birner et al., 2009) shown in Figure 1 to guide analyses and determine EAS areas of focus for on-the-ground activities that are within DLEC’s manageable interests. We use the framework to guide DLEC’s learning agenda because it outlines EAS system parameters and identifies the levers of change within it. The best-fit framework allows us to analyze a country’s EAS system, begin conversations with local stakeholders to understand the state of their EAS system and where the critical levers for change might be, and analyze and recommend systems change. The framework also enables us to compare across countries. Using the framework in engagement planning ensures that the learning questions they are designed to answer can be compared across geographies. This brings some tension between consistency and comparability on one hand, balanced with meeting the specific needs of missions and implementing partners.

The framework identifies characteristics of EAS systems on which policy decisions have to be made, and the frame conditions to be taken into account when making decisions. The frame conditions include: the political economy, the business/market and civil society environments, agroecology and the agricultural innovation system. The framework suggests an impact chain approach to analyze the performance and impact of EAS.
Key for DLEC are the EAS characteristics shown in the framework. Referring to Figure 1, the **governance structures and policy environment** variables (box F) refer to institutional set-up of EAS, or the “rules of the game.” The **organizational and management capacities and cultures** variables (box G) refer to capacity for provision of advisory services, and way in which the services are managed within the respective governance structures. These are essentially the “players” of the game, their abilities, and the way they play.

**Advisory methods** (box H) are used by EAS field staff in interactions with farmers. Advisory methods can be classified according to aspects such as the number of clientele involved (individuals, groups); the types of decisions on which advice is provided (specific to the production of certain crops or livestock; managerial decisions; group activities, etc.); and media used (radio; internet, etc.).

**Market engagement** (box I) refers to the market elements that EAS can use to better serve farmers, such as aggregation, finance, price discovery, and input and output markets. **Livelihoods strategies** (box J) refers to how EAS develops content to meet the unique needs of clientele and how gender roles impact farming strategies. **Community engagement** (box K) refers to EAS services based on local social institutions, mechanisms to articulate demand and community psychosocial characteristics.

The frame conditions (boxes A-E) are outside DLEC’s manageable interests. The “manageable” outcomes of this framework include the system-level performance areas (box L). The outcomes and ultimate impact at the farm household level (boxes M and N) are outside the core DLEC leader award manageable interests; an associate award under DLEC could be designed to achieve some of the intermediate and primary outcomes.

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