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

ANNUAL REPORT

FEED THE FUTURE ASIA INNOVATIVE FARMERS PROJECT
FISCAL YEAR 2015-2016

USAID
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WINROCK
INTERNATIONAL

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Acronyms

AFU	Agriculture and Forestry University (Nepal)
AIFA	Feed the Future Asia Innovative Farmers Activity
AVC	Agricultural Value Chains Project (Bangladesh)
B2B	Business to Business
BAU	Bangladesh Agriculture University
EMMP	Environmental Mitigation and Monitoring Plan
FinTech	Financial Technology
FTF	Feed the Future
INGENAES	Integrating Gender and Nutrition within Agricultural Extension Services Project
KU	Kasetsart University
LEAF	Lowering Emissions in Asian Forests Project
LMI	Lower Mekong Initiative
MOU	Memorandum of Understanding
PEN	Pest Exclusion Nets
RIH	Regional Innovation Hub
RUA	Royal University of Agriculture (Cambodia)
STIP	Science, Technology, Information and Partnerships
T4FC	Tech4 Farmers Challenge
TOT	Training of Trainers
WEA	Women's Empowerment in Agriculture Project (Bangladesh)
WFLO	World Food Logistics Organization
Y1Q3	Year 1 Quarter 3

Introduction

This report covers the Feed the Future Asia Innovative Farmers Activity for the 2015-16 fiscal year. The project was signed on September 18, 2015 and this report covers activities implemented between September 18, 2015 and September 30, 2016.

The project works to facilitate the development of a robust regional agricultural innovation ecosystem that encourages and enables the transfer of critical agricultural technologies through regional partnership across commercial, institutional and research levels. The project works with a range of agricultural technology stakeholders on a regional basis (private sector, research institutions, governments, networks, etc.) to increase food security, reduce poverty, and improve environmental sustainability by facilitating agricultural innovation and technology diffusion in the Asia region.

Project Revision

Beginning in the second quarter of the fiscal year, the project undertook a substantial revision in order to better utilize its regional scope and provide unique value to the bilateral Feed the Future focal missions in Asia and to the RDMA region as a whole. Central to this revised strategy was the development of a regional agricultural innovation challenge. This challenge identifies technological solutions which are working for smallholders somewhere in region and provides support to expand these into Feed the Future markets. The Asia region is uniquely suited to this approach because it has great diversity in levels of economic and technological development but, to a great extent, shares agricultural sectors that are dominated by small holder producers. After the project revision, the Tech4Farmers Challenge was launched in May 2016.

The new challenge approach also strengthens the regional agricultural community development objectives of the project. The challenge creates an open, public platform for and incentive to stakeholders outside of the Feed the Future focal countries to engage with the project and the regional agricultural system which the project is facilitating. The challenge focuses on bringing specific, scalable technologies to Feed the Future countries, facilitates a much broader regional engagement by attracting regional entrepreneurs and providing wide visibility to solutions being developed across the region.

Finally, the challenge approach promises to be a more cost effective tool for identifying new solutions which are being commercialized around the region. Expert scouting of solutions and technologies (where the project would pay a firm to identify new solutions in the region) are snapshots of a market which must be updated regularly if the project is to take advantage of new opportunities throughout its 5-year life. Additionally, new solutions are increasingly coming from outside of traditional companies and institutions, making a more open, "crowd sourced" solution more effective in finding and highlighting them.

The revision also made explicit the scope and role of the project in regards to technology transfer in the Feed the Future focal countries. While the project has a focus on achieving impact at scale, it is clear that this must be accomplished within the larger USAID framework of regional and bi-lateral resources. The project has developed a simple technology transfer chain graphic to represent how these roles can be understood in terms of the stages of technology transfer and scaling. In brief, the project revision clearly locates the project's activities in the first two stages of transfer, namely identification of innovations (which will be accomplished through the Tech4 Farmers Challenge) and decision support for expansion into new markets (which will be accomplished through challenge awards and Technology, Market and Model testing in the target markets). In all cases, transfer activities will be closely coordinated with bi-lateral missions and the results of project supported

testing will be reported in a way to inform both private sector and USAID mission decisions on further investment.

These revisions have resulted in a design that takes better advantage of the specific regional capabilities of the project and avoids overlapping or duplicative use of USAID resources across the region.

Executive Summary

The Feed the Future Asia Innovative Farmers project has made great progress this year in developing and implementing an innovative, integrated approach that is: building awareness and excitement around the potential for new technologies to solve persistent smallholder agricultural constraints and facilitating a broad-based regional innovation community to bring regional resources and experience together for the benefit of Asian smallholder agriculture; identifying new, cutting edge agricultural technologies from South and South East Asia; facilitating the commercial expansion of new technologies into Feed the Future focal countries.

Highlights of the year and key results

Tech4Farmers Challenge

Following the project revision in quarter 2 of this year, the project designed and launched the Tech4Farmers Challenge at the Asia Regional Agricultural Innovation Summit in May. The challenge website is hosted on the Kasetsart University domain and represents the first online resource of the Regional Innovation Hub. To date, the website has had **3,674 views** by **1,631 visitors**. The project is very pleased that the number and quality of submissions to the challenge has so far exceeded expectation.

" The website has had
3,674 👁
by
1,631 👥 "

www

tech4farmerschallenge.ku.ac.th/

27
Regional Technologies Submitted
135%
of target

8
Regional Technologies Accepted
133%
of target

Awards and Testing

Unlike many development challenges, the Tech4Farmers Challenge is focused on expanding existing solutions rather than developing new technologies and so the project has ambitious targets of 26,000 farmers adopting challenge award technologies by the end of the project. The project has also designed a facilitated testing approach that allows technology owners, as well as local distributors/partners in expansion markets, to follow the same practical, iterative development process that led to the successful solution in the origin market. Despite a strong early response to the challenge, awards and testing have lagged somewhat due largely to stringent requirements for commercial partnership in expansion markets. The project is convinced that a rigorous approach will ensure sustainability and will not jeopardize life of project targets. Testing of the first two technologies (pest exclusion nets and e-Fishery) will be done in direct partnership with three bi-lateral USAID projects, at least 9 private sector companies and producer organizations and four regional universities.

3
Technologies Awarded
66%
of target
2

3
Technologies Under Field Testing
33%
of target
1

411
Individuals Trained
137%
of target

45
Organizations Supported
71%
of target
32

Regional Innovation EcoSystem Development

Driven by the very successful Asia Regional Agriculture Innovation Summit Series, the project has made excellent progress in developing a broad-based, private sector led, multi-disciplinary community of innovation stakeholders. The summit series events feature a standard package including technology pitches from regional entrepreneurs and informal panels with local and regional experts. The project has completed 3 summits in the dynamic and interactive event series and importantly these are not "one-off" events, but the stakeholders involved are integral to all of the project's activities and form the nucleus of a regional agricultural innovation community led by Kasestsart University's Regional Innovation Hub. Not only are the numbers higher than anticipated, but the interest and enthusiasm of the community has been palpable. MailChimp analytics show that the first community mailing was sent to approximately **200 individuals** and was **forwarded to 500 more**.

> "The first community mailing was sent to approx. 200 people and forwarded to 500 more."

211
Organizations in Regional Innovation Hub
141% of target

Regional Coordination and Partnerships

Under the fast track awards, the project has been able to facilitate the kind of coordination and partnership that will be critical to sustainable success. On pest exclusion net technology, the project has developed direct partnerships with co-funding from USAID bi-lateral projects (KISAN in Nepal, AVC and WEA in Bangladesh) and with commercial distributors (ACI and Fishtech) for the e-Fishery award. Additionally, the project has developed a multi-year partnership with Syngenta on regional youth and technology focused programs. The first joint project with Syngenta, the Syngenta-USAID Ag Student Connections was developed very quickly, but on the basis of the results of the two-week exchange program, Syngenta intends to double investment in year two and explore additional regional partnerships around youth and technology. The Syngenta partnership, as well as direct Winrock corporate funding for the Asia Regional Agricultural Innovation Summit helped the project exceed its ambitious first year leverage target. These accomplishments put the project in an excellent position to achieve its life of project objectives and to leave a lasting impact on smallholder agriculture in South and SouthEast Asia.

$259,578
Funding Leveraged
130% of target

3
Public-Private Partnerships
100% of target

AIFA Year1 Activities

Component 1: Regional Agriculture Innovation EcoSystem Development

Regional Innovation EcoSystem

NEPAL NATIONAL INNOVATION HUB

BANGLADESH NATIONAL INNOVATION HUB

REGIONAL INNOVATION HUB
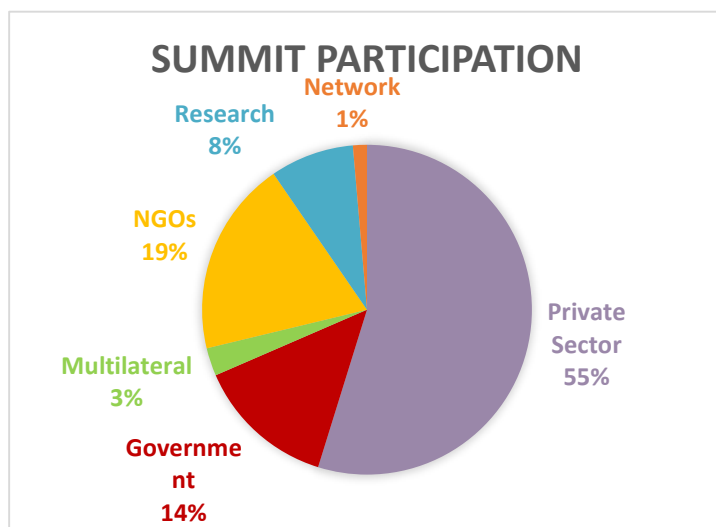
CAMBODIA NATIONAL INNOVATION HUB

400 PARTICIPANTS

20 COUNTRIES

- ☑ REGIONAL SUMMITS
- ☑ GRANTS
- ☑ ENTREPRENEURSHIP
- ☑ EXPERTS
- ☑ TECHNOLOGY DATABASE
- ☑ REGIONAL STAKHOLDER DATABASE

INDICATORS

FY16 Target

FY16 Actual

48
40
Stakeholders in linkages
83%

211
Organizations in hub
141%

Components 1 and 2 of the project are mutually supportive of each other. The specific technology transfer activities of the challenge help to build interest and engagement across the region and support the project's long-term goal of facilitating a truly regional community that broadens the discussion of agricultural technology and expands interest beyond the traditional players. Across the region entrepreneurs are applying technologies and business models that have proven revolutionary in other industries to agriculture. For these to truly be successful and bring value, these entrepreneurs need to understand the complexity of agriculture and agricultural markets. Our vision for this component is to help build a broad community of people from many disciplines and occupations (e.g. agronomy researchers, software engineers, entrepreneurs, farmers, designers, agricultural input dealers, bankers, NGO staff, etc.) who are able to share and learn from the diverse work they are doing and apply it to agricultural needs and opportunities. This diversity is critical to support the application of technologies from other fields to the needs of agriculture.

This year the project has made an excellent start on this vision. The project has exceeded year 1 targets, bringing 430 individuals from 211 organizations into this nascent regional community (more than 50% private sector organizations) and beginning to build a regional infrastructure of events, communities and partnerships to sustain a truly regional agriculture innovation system.

The Asia Regional Agriculture Innovation Summit Series

Activities under this component were framed and launched at the first Asia Regional Agricultural Innovation Summit in May 2016. The Asian summit brought together a diverse collection (see graph) of social entrepreneurs, researchers, government experts, project designers, farmers, fishers and others to kick off a five-year initiative to develop technological solutions and regional partnerships for smallholder farmers in Bangladesh, Cambodia, Myanmar and Nepal.

SUMMIT PARTICIPATION

Research 8%
Network 1%
NGOs 19%
Multilateral 3%
Government 14%
Private Sector 55%

Going National

Following the success of the Bangkok Summit, the project launched the Agricultural Innovation Summit Series in order to bring this exciting product to all of the Feed the Future focal countries. In close collaboration with Kasetsart University, the project organized its first event in Nepal in August 2016 followed by Cambodia in

September 2016. While the expectation was to hold a third event in Bangladesh in October 2016, local security concerns have delayed this event until the next reporting period.

Altogether, the regional Summit along with these two national events directly engaged more than 400 key regional stakeholders in the areas of technology transfer, innovation community development and agricultural entrepreneurship. This engagement has effectively launched the project's effort to develop an Agricultural Innovation System for the region as systematic approach to regularly connect this diverse group of stakeholders.

The Summit Series events are conceived as a "branded" product that will tie regional community building efforts together across the region. These highly produced events were successful because they focused on delivery content in new, refreshing formats that drew lessons from corporate events and also focused on broad participation from a range of sectors. This included lighting, music, 'talk-show' formatted panels, as well as breakout groups to collect feedback and encourage buy-in into the Asia Agricultural Innovation System. Panelists included youth entrepreneurs and women leaders in the agriculture sector. This eclectic collection of panelists drove the Summit Series dialogue to innovative as well as practical solutions to accelerate the adoption of technology in agricultural-related industries.

A consistent element of the Summit Series is technology "pitches" from innovative tech producers from neighboring Asian countries to showcase their technologies to potential customers. These pitches excited and inspired participants as they identified innovative products and business models that have the potential to grow exponentially in the smallholder market in Asia. This included pitches from Sunfarmer, Rhino Research, Grameen Intel Social Business, and MimosaTEK. As a secondary objective, these pitches also gave the project the opportunity to learn more about these organizations who are each hoping to be considered for award under the Tech4Farmers Challenge.

Regional Innovation Hub and Regional Agricultural Innovation Communities

South and South East Asia are dynamic regions with a great diversity in agricultural productivity, technology penetration and investment. This diversity offers huge opportunities for mutual learning and technology transfer that can benefit smallholder farmers and technology researchers and entrepreneurs. As mentioned above, the project is supporting a Regional Agricultural Innovation System that includes a diverse group of stakeholders willing to work together towards the adoption and commercialization of effective technology to raise incomes for smallholder across South and South East Asia.

At its core, the system will consist of a **Regional Innovation Hub**, housed at Kasetsart University in Thailand, and national-level 'Agricultural Innovation Communities' in Bangladesh, Cambodia, and Nepal. These groups will include researchers, entrepreneurs, businesspersons, government officials, and technologists from their respective countries. As the Hub, Kasetsart will maintain a set of web-based resources (e.g. Tech4Farmers Challenge site, regional stakeholder database, regional social media platforms, etc.). Importantly, Kasetsart has region leading content in the form of experts involved in cutting edge research and private sector applications.

Kasetsart has committed to building and growing the Regional Innovation Hub as a part of its strategy for greater regional engagement. Kasetsart already manages the regional USAID Horticulture Innovation Lab center and hosts the World Vegetable Centre regional training station. The Regional Innovation Hub offers an opportunity to further leverage these excellent resources, and the project will also support the International Affairs Department at Kasetsart to develop an internal strategy to access resources from across the university.

This year the project began work on a technology database that would collect new technologies from websites and other sources around the world and would be maintained by Kasetsart as a resource for innovators in Asia. On a recent trip to the India IP meeting, however, the project learned about the 'Global Innovation Exchange,' which has close to 1,000 technologies in agriculture alone and which does nearly everything the project planned to do. Over the next quarter, Kasetsart University will help the project contribute an additional 200 technologies to this site and include a link to the page on the Tech4Farmers website. With this new resource, the strategy has changed. Now the Regional Innovation Hub will dedicate its time to curating the information and presenting it in interesting ways to regional members. This may include "Top 10 lists" of new technologies and regional or category spotlights.

National Communities

At each of the two national events, breakout sessions were held to identify the value in creating agricultural innovation communities at the national level that would connect to a regional platform. Participants were first briefed on the Regional Innovation Hub at Kasetsart University that will be the nucleus of the Asia Agricultural Innovation System. The breakouts identified a number of roles for national-level innovation communities, such as providing a forum for sharing new ideas that are working locally; sharing specific problems that need solutions; and serving as a resource for finding expertise and investment. The feedback from the sessions also placed a focus on diverse membership, consumer-driven approaches, and a laser focus on improving incomes for smallholders.

Following these breakouts, the project announced a grant program to support champion organizations to establish and foster National Agricultural Innovation Communities. The funding, $15,000, is intentionally not sufficient for the organization of a formal body with full-time staff, management and premises. The idea, rather, is to provide funding for specific activities and assets that will empower the locally-based organization to identify interested stakeholders and facilitate engagement nationally and regionally (through connection with the Regional Innovation Hub) on issues related to agricultural innovation.

The Annual Program Statement to support these grants is designed and will be opened to the public in October. The project expects to make awards early in 2017 and begin working closely with the communities in each country. The project believes that this grassroots, locally owned network has the potential to really tap into and satisfy a deep interest and hope in technology that we see across the region.

The Summit Series Looking Ahead

Following the success of the Summit Series, the project plans to continue to hold a regional and national events in the years ahead. The events over the past year were focused on initiating a movement on agricultural innovations in agriculture while in the following years we will focus on celebrating champions, learning from experiences, and identifying targeted opportunities to accelerate. While diversity of participation will continue to be stressed at each project each, the content will focus more on depth instead of breadth. For example, the project will highlight Tech4Farmers challenge winners and how lessons learned can be applied to other

stakeholders engaged in this space. Similarly, the national events will be organized in collaboration with the Grantee of the Agricultural Innovation Communities in each country.

Online Engagement

In September 2016, the project released its first quarterly update that was sent to more than 230 people. Online analytics showed that the open rate was more than double normal NGO mailings and that it was forwarded to more than 700 people. This feedback further validates the project's feeling that people in Asia are very interested and excited about technology and approaches to help innovations in agriculture benefit smallholders. With this in mind, the project will continue to expand its outreach through social media platforms in partnership with Kasetsart University and the eventual Grantee winners of the Asia Agricultural Innovation Communities.
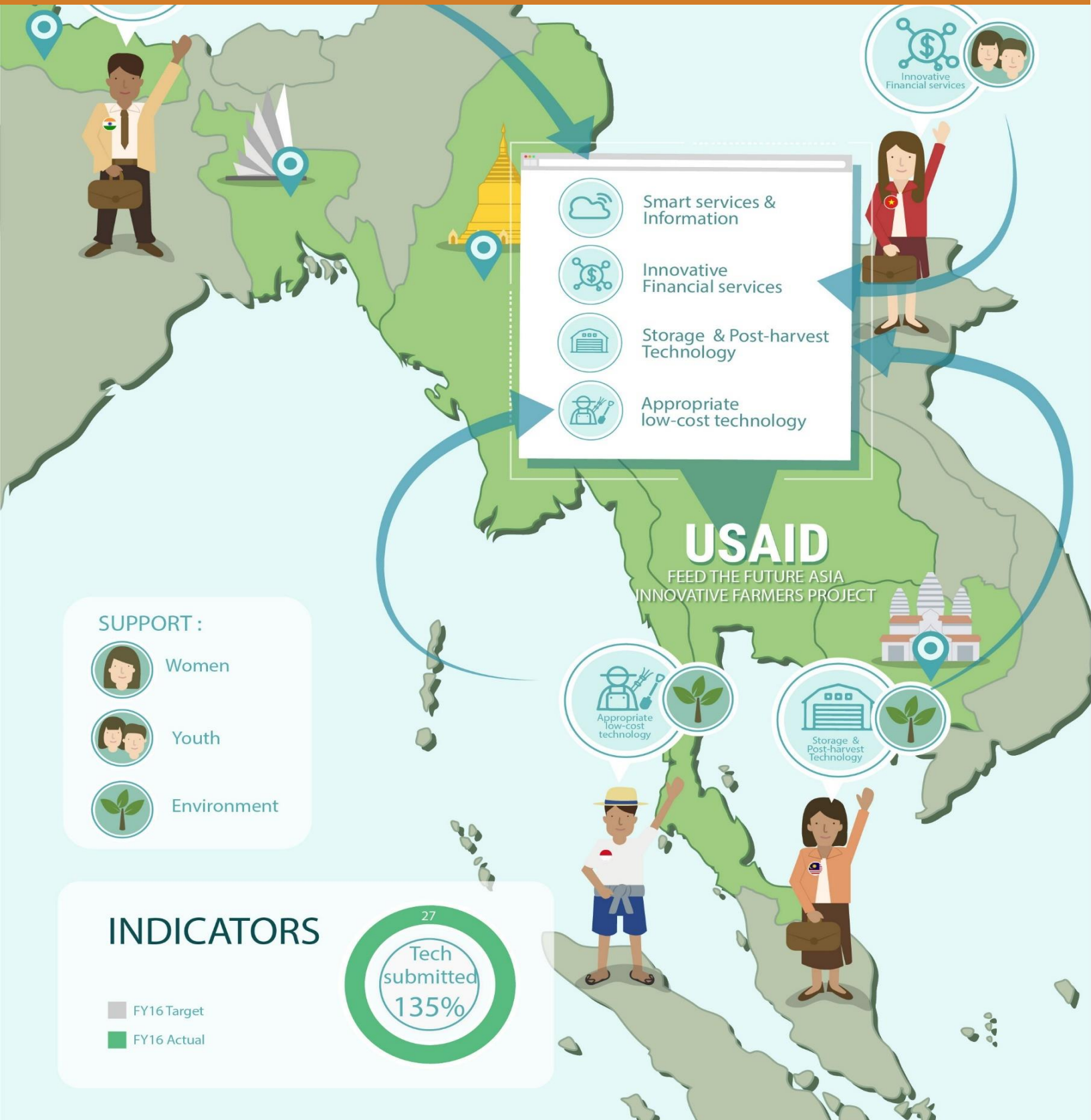
In particular, the project is currently working with Kasetsart University to create a social media strategy that is targeted for young entrepreneurs, farmers, researchers, students, and other stakeholders that will be further bolstered by local social media campaigns from the three communities. Leveraging the engagement from the Summit Series along with the quarterly updates, the strategy will also pull people to the sites through highlighting the latest opportunities (e.g. Syngenta Connections, upcoming events, YSEALI grants etc.), and also share the latest technology and research of relevance for smallholder farmers. Kasetsart University and the communities will drive online campaigns that foster active engagement from the network through sharing relevant content, hosting webinars, and online polling.

Entrepreneurial Thinking

Tech entrepreneurs at the summits do not just highlight their technology but also their processes in innovating and building profitable businesses. At the Regional Summit in Bangkok, Michael Peng of IDEO set the stage for our summit series by explaining human-centered design practices. In each of the other summits, entrepreneurs have highlighted the importance of starting small and learning from real customers through an iterative process. The project is also following this approach in facilitating technology transfer to boost sustainability and expose local partners to this method.

Component 2: Tech4Farmers Challenge

Smart services & Information

Innovative Financial services

Storage & Post-harvest Technology

Appropriate low-cost technology

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INNOVATIVE FARMERS PROJECT

Innovative Financial services

Appropriate low-cost technology

Storage & Post-harvest Technology

SUPPORT :
Women
Youth
Environment

INDICATORS

27
Tech submitted
135%

FY16 Target
FY16 Actual

Challenge Launched

At the Asia Regional Agricultural Innovation Summit in May, USAID Deputy Assistant Administrator Justin Finnegan officially launched the project's Tech4Farmers Innovation Challenge. The Tech4Farmers Challenge (please see www.tech4farmerschallenge.ku.ac.th for details) is the operational tool for the project to identify and support specific technology transfer in the region. The challenge is open to companies and organizations in South and South East Asia and the "challenge" these organizations are asked to answer is can they expand working solutions from the region into one or more of the Feed the Future focal countries of Bangladesh, Cambodia, Myanmar and Nepal.

The challenge is not only a tool to identify technologies, however. It is also an important tool to engage and incentivize organizations from across the region, and this is a critical issue because the project's Feed the Future funding means that most activities will be carried out only in focal countries. To reinforce this role and engage the larger region, the challenge was launched at the Bangkok summit and all attendees (from 18 countries) were engaged in an open selection process using online polling software to choose regional constraints – not only those most specific to the Feed the Future focal countries. Additionally, this was undertaken to ensure that the challenge would be "pulled" by regional needs rather than "pushed" by technologies looking for an application.

Response

The challenge is located on the Kasetsart University web domain and is the first of several online resources that Kasetsart will manage as part of the Regional Innovation Hub we are developing together (see Component 2: Regional Agriculture Innovation System Development).

The site was opened in June and has so far received 3,674 views from 1,631 visitors. To date the primary promotion has been through the project supported Asia Regional Agricultural Innovation Summit Series (so far in Bangkok, Cambodia and Nepal) and through USAID networks. Initial response has been very positive, and the next stage of promotion will be through targeted events and networks across the region.

Through the end of the reporting period the challenge received 25 applications (31 as of this writing) and has accepted 8 of these for award review. Acceptance is an intermediate step which signifies that the solution meets the challenge requirements but an award decision hasn't yet been made. This could be based on any number of factors, such as a lack of commercial partnership in target markets or portfolio balance within the project. Both applications and acceptances exceeded project targets for the first year reaching 135% and 133% of targets respectively.

The challenge themes determined by summit participants were:

SMART SERVICES & INFORMATION · INNOVATIVE FINANCIAL SERVICES · STORAGE & POST-HARVEST TECHNOLOGY · APPROPRIATE LOW-COST TECHNOLOGY

Among the accepted technologies there is an exciting mix of focus and business models as summarized below:

Technology Name	Description
Pest Exclusion Nets (Fast-Track Award: Appropriate Low Cost Tech) *Various*	Technology that provides a physical barrier between crops and pests "screening" them from the plants, allowing for the reduction or elimination of pesticides from some crops
e-Fishery (Fast-Track Award: Smart Services and Information) *Indonesia*	Sensor and web-enabled technology that monitors fish behavior and water quality to reduce feeding costs and improve feed conversion ratio. Data products are also being developed for finance institutions and buyers to support producer input and output markets.
SunFarmer Theme: Financial Services *Nepal*	Solar pumping equipment and installation enterprise that has introduced an innovative rent-to-own product to support smallholder access.
Digital Soil Testing Theme: Smart Services *Bangladesh*	Soil testing machine that utilizes existing, proven colorimetric testing technology, but digitizes results through the use of a color sensor in a portable device. The device is loaded with existing Grameen-Intel software that provides specific recommendations through a complex algorithm.
Biwas Eco-Wash Theme: Storage and Post-Harvest Tech *Bangladesh*	Calcinated Calcium (patent pending) cleansing product manufactured from shellfish waste. The product is a replacement for chlorine bleach which is now banned for food product use by major markets.

SourceTrace Theme: Smart Services and Information *India*	E-Traceability system with modules for agriculture and aquaculture.
Verifik8 Theme: Smart Services and Information *Thailand*	Third-party verification system for sustainable aquaculture and fisheries. The innovation is to provide a cost-effective "good enough" standard for small producers.
Spirulina Contract Production Theme: Financial Services and Smart Services and Information *Thailand*	Contract production model for expanding spirulina aquaculture to women producers. The applicant has received finance from the Blue Economy Challenge and has applied to the Tech4Farmers Challenge for assistance in developing a smallholder focused expansion model.
Agri-Buddy Theme: Smart Services and Information and Financial Services *Cambodia*	Mobile suite of agriculture tools and information for smallholders monetized through services to financial institutions and other value-chain actors.

The project is very happy with the range and quality of the accepted technologies and is in contact with a number of regional companies who are considering applications.

Based on analysis of submissions to date, the project has identified three goals for challenge outreach in the next quarter:

1. Increased awareness and submissions from the Fintech sector
2. Increased engagement with the impact investor community
3. Increased submissions from India

Work on these priorities has already started. In October the project took a booth at the Sankalp SE Asia Forum to increase awareness in the FinTech space, and presented at the USAID India implementing partners meeting to increase submissions from India. The project is also in advanced discussions with Fish 2.0 to partner on a Lower Mekong Initiative / SE Asia "track" to engage more with the investor community around sustainable aquaculture and fisheries technologies and is meeting with regional impact investing networks to increase visibility and partnership.

> 66 *There are lots of investors out there now and money really isn't our problem…Investors are able to help us in many ways but what they don't know much about is the smallholder market. That's why your challenge is interesting for us*
>
> Gibran Huzaifah, CEO, eFishery 99

With this in mind, the project testing framework focuses on a limited number of user tests (but must include male, female and youth users) with larger associated focus groups that follow the technology through a cycle and provide deeper market insight. Focus groups are developed for both users and value chain stakeholders (e.g. local retailers, offtake buyers, banks, extension agents, etc.). This practical, iterative approach is especially important with new products and in smallholder markets without good data or understanding of decision making and buying behavior. This approach has resonated with many of the technology entrepreneurs that the project has met with. In most cases it is the way that they learned about their customers in their home market and it allows them to ensure that local partners understand this approach as well.

Under the challenge, each award technology will also be tested under controlled conditions by the project's university partners in the relevant country: the Bangladesh Agricultural University, the Royal University of Agriculture in Cambodia, the Agriculture and Forestry University in Nepal and Kasetsart University in Thailand. Kasetsart University also plays a key role in training and supporting regional university partners and monitoring on-going testing.

To date the project has made two "fast-track" awards, pest exclusion nets and e-Fishery, that were outlined in the proposal to allow the project to make progress while searching for other technologies. The pest exclusion nets testing is in process in all three focal countries. Initial training for the farmer testers as well as for the focus group members has been completed. 314 farmers and other stakeholders were trained, with 142 women (45%).

In Bangladesh, the pest exclusion net technology has a particular value for women farmers. Women in Bangladesh are not allowed to purchase pesticides and agro-chemicals. Everyone we spoke to reported that the reason for this ban was a famous case of a woman who committed suicide by drinking agricultural pesticides. In all of our focal countries, urban migration and foreign work opportunities have required many women to step up and run family farms with their husbands and sons gone.

This also is resulting in rural labor scarcity and skyrocketing costs. This means that commercially-minded women farmers in Bangladesh are doubly squeezed in procuring pesticides and finding labor to apply it - pest exclusion nets can be a solution for some important vegetable crops.

Unlike most of the technologies the project expects to support, pest exclusion netting is not proprietary and there are a number of manufacturers across the region. There is also little differentiation, particularly at the smallholder price point, and so individual manufacturers are not interested in investing in promotion for the category as a whole. For this reason, the project has focused on developing cooperation with bi-lateral projects and local distributors. In Nepal and

Bangladesh, the project has developed co-financing models with the KISAN and AVC projects to integrate net testing with their partners and activities. In Bangladesh, AVC was already working with agri-services companies on shade netting, so the addition of pest netting is a category extension that makes a lot of sense. In Cambodia the Harvest project is ended, so the project is working more closely with local companies that buy safe vegetables.

The e-Fishery award has not yet moved to "field-testing" because the commercial distribution agreements have taken some time to conclude and so machines have not yet been shipped. Two Bangladeshi companies, ACI and Fishtech, have agreed to purchase 10 e-Fishery units each for testing in Bangladesh and they will both have distribution rights across the country. The distributors will identify customers in various market segments (e.g. small, medium and institutional) and the project will support them and e-Fishery to implement systematic testing of the technology, the market and the distribution model in Bangladesh. An important aspect of the project's interest in the technology is the potential for real-time data to provide a "window" into individual production businesses and thereby reduce uncertainty in the input supply sector and reduce the risk of production credit for financial institutions. To test this data aspect, the project will support integration of feed companies and financial institutions into testing.

It is almost a mantra in Bangladesh that aquaculture is at a crossroads. The explosive growth of recent years was driven by high margins, even on low efficiency, extensive production, but with the production growth, however, margins are now tightening. For further growth, it is understood that farmers must intensify and increase their efficiency. The major obstacle to that intensification is seen as high feed costs. A technology like e-Fishery has the potential to reduce feed wastage and optimize feed conversion ratios without extensive training and human capacity building. Project testing will assess the actual performance of the technology in Bangladesh conditions, but will also test different pricing models and service needs based on farm size, capital and farmer experience / education.

The project hoped to make one additional award and to have all three technologies under field testing at this point, but currently has made 2 awards and has one technology in the field. This underperformance is largely due to the stringent requirements of the challenge (primarily local commercial partners) and the limited time between the revision of the project approach and this report. While this is a concern for the project, this is the first iteration of the process and we do not believe that this minor delay will impact year 2 or life of project targets. One tweak we will make to the process is to make local partnership requirements clearer at the application stage to start applicants working and thinking along these lines at application.

Component 4: Technology Transfer to Support USAID-Bilateral Mission-Oriented Interventions

The Agriculture Team at RDMA has done an excellent job of introducing the project around the region and taking advantage of opportunities that occur when staff from relevant missions are in Bangkok for training or meetings. Additionally, the Summit Series has allowed for in depth coordination and discussions with the bi-lateral missions. At the Bangkok summit, 18 USAID staff from the region and from Washington attended and were able to share their priorities with the project. On the national summits, project staff work closely with relevant offices at the local mission and with DOC offices to prepare for each event. The cooperation from the missions on these events has been excellent and mission staff have been very pleased with the events.

The project also sends monthly updates to the AOR for circulation to all relevant missions to keep everyone up to date on plans and activities.

Mission staff in all three countries have been supportive of initial testing and of the technologies introduced. In particular, the Bangladesh mission has been very interested in the e-Fishery award, and helpful in making connections with projects in the aquaculture sector.

In the next quarter, the project will complete the received applications page of the Tech4Farmers Challenge website and this page will offer unique functionality for regional missions. Of the 30 applications received to date 22 of them did not qualify for the challenge for one reason or another. That does not mean that the technologies may not have applicability or interest to other missions or their bi-laterally funded projects. For this reason, the project will prepare "technology menus" for each mission made up of technologies submitted from their country and others that we thing might be of interest. In the initial submissions, 2 have been from Cambodia, 11 from Nepal and 7 from Bangladesh.

Management and Administration

The project had a very efficient start up with the help of an existing Winrock project in Bangkok and Winrock offices in each of the three focal countries. The project has a very lean staff, with only a single coordinator in each country and three technical staff in the Bangkok office. The project had difficulty in finding a suitable Thai candidate for the Regional Innovation Manager position and the position was eventually filled in April by a US candidate resident in Bangkok. There was also significant delay in technical support from Kasetsart due to delays in the sub-agreement signing. As of this writing, however, Kasetsart has placed an Agricultural Specialist in the project office to support with coordination with Kasetsart and management of field testing activities.

In October the project and partners will begin using an online M&E database developed locally. The database will accommodate all of the project's data that is required for reporting to USAID. The system will allow for data to be entered and queried anywhere in the world. It is expected that the majority of data will be entered in Thailand, Bangladesh, Cambodia and Nepal, and possibly in other countries in Asia and the US. The database application will have provisions for multiple levels of users, instant access queries, real-time and duration-based (month, quarter, year) reporting. It will employ an ultra-thin client architecture, which supports low-bandwidth (dial-up) connections and is accessible through all major web browsers regardless of operating system. This database will allow the project enter and monitor data on a real-time basis, improving the speed of project learning and adaptation. It will also allow for more nuanced, timely reporting to USAID and other interested stakeholders. Field testing started in September and the system should "go live" in the next quarter.

The July 1 attack in Bangladesh has highlighted the need for careful security planning and preparedness. In Bangladesh, Cambodia and Nepal, project staff share space and services with local Winrock offices. Project staff in those countries are included in and subject to the security plans and requirements of those Winrock offices. The COP is copied on all security related messages. The Bangladesh office will be implementing new security measures at the Winrock office, including installing cameras and magnetic door locks. These costs will be allocated to all projects in the office on a cost-sharing basis.

Partner Analysis

A. KASETSART UNIVERSITY

For many months, a law suit brought by a former president of Kasetsart University meant that appointments were all interim and the university was not able to sign the sub-agreement with the project. This slowed the

implementation of field testing with the fast track technologies. However, throughout the year, Kasetsart management has been incredibly responsive and as helpful as they could be without a signed agreement. Since signing the agreement last quarter, the university has organized a resident training on Pest Exclusion Nets in Bangkok, co-organized summits in Nepal and Cambodia and hosted the Tech4Farmers Challenge website on their domain. The university is committed to their role as Regional Innovation Hub for the project and has already brought in faculty from horticulture, aquaculture, international affairs and IT to discussions around developing a strategy to best leverage the opportunities presented by the project. In the next quarter, Kasetsart will undertake a controlled test of the e-Fishery technology at their Thailand aquaculture facilities.

WFLO is not expected to begin activities until next year. They will be utilized only as relevant based on selected technologies.

Integration of STIP, Gender, Resilience, And Youth

Gender

This year Winrock International Gender Advisor, Laura Romah traveled to Bangkok and provided a gender aware- ness and gender sensitive programming training for all staff. In addition, Laura developed a strategy document to integrate gender into project planning, communications and outreach and monitoring and evaluation. Laura also facilitated contact with the Integrating Gender and Nutrition within Agricultural Extension Services Project (INGENAES). The INGENAES project was very helpful in providing a technology assessment tool they are develop- ing to look specifically at the impact of technology on women. The project has integrated this tool into the Learning Framework for Testing and it will help to assess the potential impact of all technologies on women users.

This year women's participation in trainings was 42%. Our target is 60%. We will work with partners to increase this number in the coming years.

Youth

Over the past year, the project has recognized that there is a real opportunity to build a cohesive youth focus across nearly everything the project does. The entrepreneurs we work with on the challenge are mostly under 35;
agricultural companies and regional governments are concerned about aging farmer demographics; youth are already active on social media and making starts toward agriculture technology communities. As a start, the project found a motivated and practical partner in Syngenta. With only a couple of months before the start of an existing Syngenta sponsored exchange for Australian students, the project worked with Syngenta to broaden the program and include Asian agriculture students. The Syngenta – USAID Ag Student Exchange is a 5-year program targeting students from over seven universities in Asia working in local communities to introduce and adapt Tech4Farmer Challenge technologies. This first year 9 Asian students were selected from YouTube applications to participate in a two-week immersive training with smallholders in Vietnam. Following the training, the project hired the Cambodian and Nepalese students to be interns to support the Summit Series, pest exclusion net testing, and research on available technologies in the region. Following the success of this first year, Syngenta plans to double their investment in year 2 and are exploring opportunities for other youth focused activities in the region.

The second natural area where we are pursuing youth engagement is focused on supporting young professionals that tend to be around 25-35 years of age, such as the founders and representatives of companies we work with like E-Fishery, Angkor Green, Sunfarmer and MimosaTEK. The project has been helping these innovative individuals in order to continue to grow as leaders and change agents. Over the past year for instance, the project has advanced discussions to help E-Fishery export its automated fish feeder to Bangladesh and invited

MimosaTEK to participate as a mentor in the 'Syngenta – Agriculture Student Connections Program. In the year ahead, the project will award grants to champion organizations to grow the national agricultural innovation communities, which will include a focus to help youth entrepreneurs access mentors to grow and expand.

At both events in Cambodia and Nepal, the project invited youth entrepreneurs from each country to showcase their new technologies. This included low-cost sensors to monitor soil, smart phone apps to answer farmer questions on how to use new technology and solar powered irrigation. For instance, Smart Krishi in Nepal has connected over 30,000 farmers with their mobile app and with Facebook page (over 166,000+ followers) that collects agricultural information/techniques and answers to questions from farmers trying to use new technology. In Cambodia, the Agri Buddies App headquartered in Siem Reap creates a network and provides information that helps smallholders connect with buyers, their peers, as well as the latest news on best practices in farming. These local innovations may not be ready to expand through the Tech4Farmers Challenge, but their example is important for inspiring youth.

The project is also targeting youth as a focus group for testing technologies under the challenge. Exposed to smart phones and other electronics at an early age, youth bring a unique perspective to testing technologies and will be instrumental in helping to guide the growth of new products. Many youth are also landless but keen to run a
business in their community. As such, many of the new technologies available in the market present an opportunity to distribute or create a service-based business for young adults. These focus groups will give youth early exposure to such opportunities as well.

Environmental Compliance

Based on the project IIE, all technologies with field level agricultural activities require an EMMP to be submitted for approval. This year the project submitted an EMMP for Pest Exclusion Nets. The requirements of the EMMP will be included in the work plan and all sub-agreements and will be monitored regularly by project staff.

ANNEX 1: SUCCESS STORY

Youth Leaders of Agriculture Promote Technological Solutions for A Hunger-Free Future

September 2016 – Having grown up in a family of farmers, agriculture has always been an important aspect of Shilu Dahal's life. She insisted on pursuing her dreams of revolutionizing Nepalese agriculture and promoting women farmers' involvement in the sector despite her father's wish for her to study and work in another field.

"I want to revolutionize farming by promoting the adoption of technological solutions to tackle food insecurity in our country," said Shilu Dahal, a youth leader at the Syngenta-USAID Ag Student Connections Program 2016 in Hanoi, Vietnam. "I also want to empower women farmers and foster a cooperative relationship among members of Nepalese farming communities."

Following her return from Vietnam, Shilu became fully involved with the project's activities by assisting the Nepal country coordinator in preparing for the Asia Agricultural Innovation Summit series, sharing her experience at the summit series and on a youth agriculture blog, and supporting Pest-Exclusion Nets testing activities in rural Nepal.

"The past two months with the Feed the Future Asia Innovative Farmers Project have been enriching, said Shilu Dahal. "Not only did I gain multicultural experiences but also expanded my knowledge of agriculture technologies after connecting with entrepreneurs and researchers through the Regional Innovation System."

Shilu is one of the youth leaders of agriculture that participated in the Syngenta-USAID Ag Student Connections Program 2016 in Hanoi, Vietnam with support from the USAID Feed the Future Asia Innovative Farmers Project. As the Asia-Pacific region is home to 60% of the world's youth population, the project saw this as a great opportunity to capitalize on the energy and creativity of young people to transform agriculture.

The Innovative Farmers Project brought students from 6 South and Southeast Asian countries to the Connections Program, organized in partnership with Syngenta, to learn more about the current state of agriculture and smallholder farmers' constraints in Vietnam. This has proven to be a valuable experience for many students as they had the opportunity to do practical work in the field and dialog with smallholder farmers.

"I'm an agriculture student but never had field work experience outside the classroom until the Connections program," said Phung Ha Trang, a Crop Science student from Vietnam University of Agriculture.

The students were also introduced to innovative agriculture technologies such as sensor

technologies from the Vietnamese startup MimosaTEK and net houses and observed how they were being utilized in the field.

"Tri Nguyen from MimosaTEK is my inspiration. I'm so amazed at how his technology is helping farmers. I will follow his footsteps," said Souay Vongsichaleune, a student from National University of Laos.

After the Connections program ended, Souay went back to his hometown in Northern Laos and gave a talk to students at his primary school about his exchange program experience in Vietnam.

"I believe that sharing is learning and I hope that my story could be an inspiration for some like Tri's was for me," said Souay Vongsichaleune.

Muyleang Kim, a student from Royal University of Agriculture Cambodia and Khaledin Anam from Bangladesh Agricultural University both went back to their countries and shared knowledge about innovative ag technologies, specifically the benefits of Pest-Exclusion Nets, to their classmates.

"The use of low-cost Pest-Exclusion Nets can help farmers protect their crops and boost yield yet it is still not prevalently used in Cambodia," said Muyleang Kim. "I am excited to introduce the nets to Cambodian farmers through the project's Pest-Exclusion Nets testing in the coming months."

Engaging youth like these in agriculture is integral to feeding the rising global population and ensuring food security. Even though the it has been 2 months since the Connections program ended, the students still keep in touch through an Alumni Network on Facebook. This is the strength of exchange programs that create linkage and sharing long after the people have parted.

Embracing Innovation in Agriculture and Building a Robust Regional Innovation System

September 2016 - Fish Farmer turned tech entrepreneur, Gibran Huzaifah, strives every day to transform the aquaculture sector with the power of technology. Gibran developed a smart fish feeder that can sense fishes' appetite and dispense feed accordingly. Feed costs represent approximately 80% of fish production costs and Gibran says that this technology can reduce feed usage by up to 20%.

"We believe that technology can be and should be the solution," said Gibran Huzaifah, CEO of eFishery, an Indonesian Internet of Things(IoT) company. "Our technology is not only giving value to the fish farmers, we are trying to disrupt the whole industry and… change the livelihoods of millions of people."

Gibran is a member of the Regional Innovation System and one of the many interesting personalities that were present at the Asia Regional Agricultural Innovation Summit in Bangkok, Thailand.

As part of its commitment to support a vital regional agriculture innovation community, the project has developed the Asia Regional Agricultural Innovation Summit Series. So far, innovation summits have been held in May in Bangkok, Thailand, in August in Kathmandu, Nepal and in September in Phnom Penh, Cambodia. The summits are designed to bring a broader community together to tackle persistent smallholder agriculture constraints through application of new technologies and innovation throughout the smallholder agricultural value chain.

Also conceived at the regional summit in Bangkok, Thailand is the Regional Innovation System which has grown in the past few months, reflecting the high level of interest in accelerating the adoption of innovative technologies to improve farmers' livelihoods in the region. The community now consists of 430 members from 211 organizations from diverse disciplines and occupations (e.g. agronomy researchers, software engineers, entrepreneurs, farmers, designers, agricultural input dealers, bankers, NGO staff, etc.) connected through Asia Agricultural Innovation Summit Series events.

"It is necessary that we expand beyond aggies talking to aggies," said Rob Turner, Project Director of the USAID Feed the Future Asia Innovative Farmers Project. "People from the summit series events said they found it very energizing and inspiring to have the viewpoints of people they don't normally talk to."

The Asia Regional Agricultural Innovation Summit Series itself was a promising start to improving the livelihoods of smallholder farmers and achieving food security. Hur Thinearng, Marketing Manager of Angkor Green Investment and Development Cambodia, expressed with optimism that the pest-exclusion nets, that he was introduced to at the Regional Summit, is a useful technology applicable to agriculture in Cambodia.

After the Regional Summit in Bangkok ended, Angkor Green bought pest-exclusion nets from Thai Charoen Thong Karntor, a Thai company that presented at the Summit, to supply to farmers in Cambodia. Subsequently, Angkor Green

traveled to Vietnam to learn more about sensor technology by MimosaTEK, another technology company that also attended the Summit, and its applicability in Cambodia.

Through the Tech4Farmers Innovation Challenge, the project will focus on identifying and expanding proven, commercially viable technologies into new markets in Bangladesh, Cambodia, and Nepal.

ANNEX 11: TARGETS AND ACTUALS BY PERFORMANCE INDICATORS

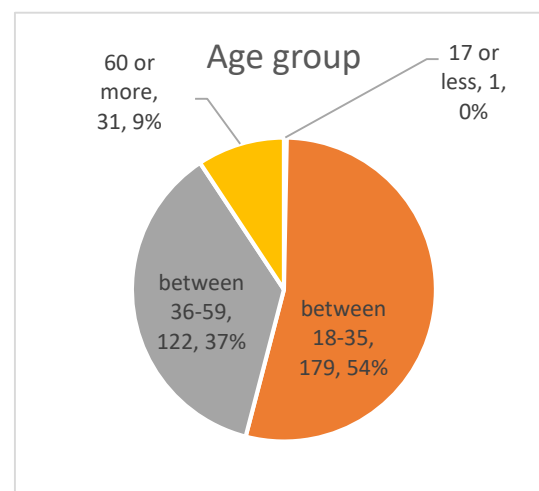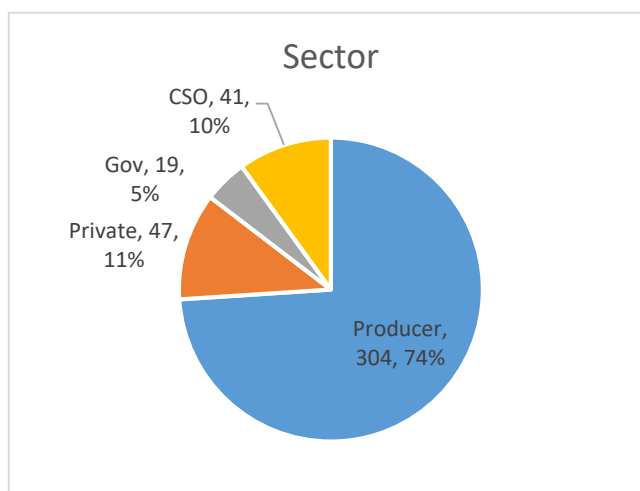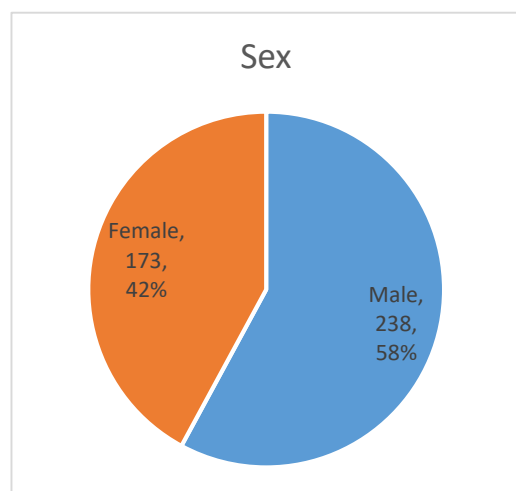| Indicator Number	Indicator Name	Annual Target *	Q1 Actual	Q2 Actual	Q3 Actual	Q4 Actual	Cumulative Actual	Cumulative Actual as % of annual target	Notes
1.1.1 custom	Number of farmers and others (direct and indirect beneficiaries) who have applied improved technologies or management practices with USG assistance (Outcome)	0	0	0	0	0	0	n/a	
1.1.2 FTF EG.3.2-1	Number of individuals who have received USG-supported short-term agricultural sector productivity or food security training (Output)	Total 300 Women (180)	0 (0)	0 (0)	78 (21)	333 (152)	411 (173)	137% (96%)	Community interest in Pest Net Technology was greater than planned as was willingness to participate in focus groups. The target was exceeded despite one less technology than planned
1.1.3 FTF EG.3.2-20	Number of for-profit private enterprises, producer organizations, water user 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 (Outcome)	33	0	0	0	5	5	15%	With the delay in "technologies under field testing", there was little opportunity to work with planned enterprises and for them to adopt new technologies.
1.1.4 FTF 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 (Output)	45	0	0	21	11	32	71%	High interest in the e-fishery technology in Bangladesh across the aquaculture value chain allowed the project to reach 71% of the target despite lower technology numbers than planned.
1.2.1 FTF EG.3.2-7	Number of technologies or management practices under research, under field testing, or made available for transfer as a result of USG assistance (Output)	3	0	0	0	1	1	33%	This indicator requires the technology to be in the "field" and so only Pest Exclusion Nets can be counted. E-Fishery has been awarded, but the technology has not been shipped to Bangladesh yet.
1.2.2 custom	Number of technologies or management practices which are female supportive, youth supportive or designed to reduce risk or improve resilience to climate change in one or more phases of development (Output)	2	0	0	0	1	1	50%	Pest Exclusion Nets are the only technology technically in a phase of development and it is female supportive.
1.2.3 custom	Number of technologies or management practices proposed, accepted or under incubation through USG supported regional challenge initiative (Output)	20	0	0	14	13	27	135%	Early response to the Tech4Farmers Challenge has been greater than anticipated.
1.2.4 custom, tracking only	Value of sales of technologies in new markets (Outcome)	n/a	0	0	0	0	0	n/a	

Indicator Number	Indicator Name	Annual Target *	Q1 Actual	Q2 Actual	Q3 Actual	Q4 Actual	Cumulative Actual	Cumulative Actual as % of annual target	Notes
1.2.5 custom	Average percentage of income increase potential of supported technologies (Output)	0	0	0	0	0	0	n/a	
2.1.1 custom RDMA IR S.3	Number of innovative approaches identified by RDMA that are funded or adopted by USAID or bilateral missions or other public or private funders (Outcome)	0	0	0	0	0	0	n/a	
2.1.2 custom	Number of case studies and other materials developed and disseminated to facilitate learning, adoption or scale-up (Output)	0	0	0	0	0	0	n/a	
2.1.3 custom	Number of stakeholders in cross border linkages established by the Project (Output)	48	0	0	11	30	42	88%	
2.1.4 Custom	Number of platforms, networks and organizations participating in a regional or national hub (Output)	150	0	0	71	140	211	141%	The Asia Regional Agricultural Innovation Summit Series has been more effective than expected in attracting a broad and engaged group of stakeholders.
3.1.1 FTF EG.3.2-22	Value of new private sector capital investment in the agriculture sector or food chain leveraged by Feed the Future implementation (Outcome)	$0	0	0	0	0	0	n/a	
3.1.2 FTF EG.3.2-5	Number of public-private partnerships formed as a result of USG assistance (Output)	3	0	0	1	2	3	100%	
3.1.3 custom:	Amount of funding leveraged to support the Project objectives (Output)	$0.2M	0	0	98,289	161,289	259,578	130%	The Syngenta-USAID partnership was not planned and provided unexpected leverage.

*Targets represent figures in the submitted Monitoring and Evaluation Plan, which has not yet been officially approved.

Specific Achievements

Indicator 1.1.2 Individuals trained

#	Training name	Country	End date	Number of participants
1	Design Thinking and Principles at the Innovation Summit 2016	THA	26-May-16	78
2	Regional Pest Exclusion Net Training	THA	13-Aug-16	10
3	Bangladesh Pest Exclusion Net Training	BAN	30-Sep-16	174
4	NEP PEN Training	NEP	26-Sep-16	73
5	CAM PEN Training	CAM	22-Sep-16	57
6	Syngenta-USAID Ag Student Connection Program	VIE	15-Jul-16	19
	TOTAL			**411**

Sex
- Female, 173, 42%
- Male, 238, 58%

Sector
- CSO, 41, 10%
- Gov, 19, 5%
- Private, 47, 11%
- Producer, 304, 74%

Age group
- 60 or more, 31, 9%
- 17 or less, 1, 0%
- between 36-59, 122, 37%
- between 18-35, 179, 54%

Country

Country	Value
Other	6
Vietnam	9
United States	10
Thailand	20
Singapore	3
Nepal	87
Indonesia	3
India	6
Cambodia	72
Bangladesh	185
Australia	10
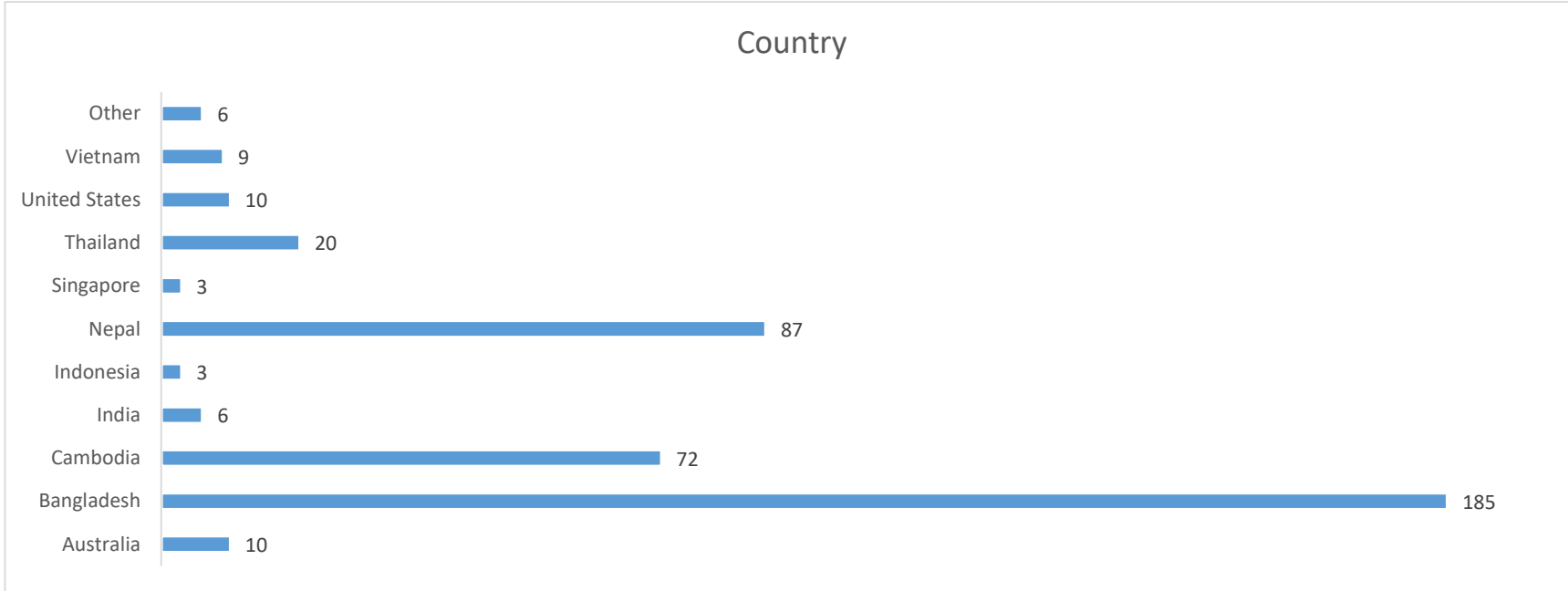
Indicator 1.1.3 Organizations applied technologies

#	Organization name	Country	Organization type
1	ACI	BAN	Private Enterprise
2	Fishtech	BAN	Private Enterprise
3	Syngenta	SGP	Private Enterprise
4	Tien Le Cooperative	VIE	Producer Group
5	GME Agro	BAN	Private Enterprise

Indicator 1.1.4 Organizations receiving USG Assistance

#	Name	Assistance Start Date
1	Entofood	25-May-16
2	Mimosatek Technology	25-May-16
3	eFisheries	25-May-16
4	SunFarmer Nepal	25-May-16
5	Rhino Research	25-May-16
6	Thai Charoen Thong Karntor (TCT)	25-May-16
7	ACI	01-Jul-16
8	Fishtech	01-Jul-16
9	Syngenta	04-Jul-16
10	Tien Le Cooperative	04-Jul-16
11	Grameen Intel	30-Aug-16
12	GME Agro	09-Aug-16
13	Angkor Green	09-Aug-16
14	Natural Agricultural Village Shop	09-Aug-16
15	SMS Feed	20-Jun-16
16	Advance Agrotech	20-Jun-16
17	Agata Feed Mills	20-Jun-16
18	EON Group	20-Jun-16
19	Aristocrat Agro	20-Jun-16
20	Joyda Hatchery	20-Jun-16
21	Sharnalata Agro Fisheries	20-Jun-16
22	Agro3 Hatchery	20-Jun-16
23	MO Agro Fisheries & Hatcheries	20-Jun-16
24	Reliance Agro Fisheries	20-Jun-16
25	Spectra Hexa Feeds	20-Jun-16
26	Union Bank	20-Jun-16
27	Dutch Bangla Bank	20-Jun-16
28	BRAC Bank	20-Jun-16
29	Everagro Industries	20-Jun-16
30	Dipjyoti Krishak Samuha	26-Sep-16
31	Indreni Krishak Samuha	26-Sep-16
32	Kamalnain Krishak Samuha	26-Sep-16

Country

Vietnam 2
Thailand 2
Regional 1
Nepal 4
Malaysia 1
Indonesia 1
Cambodia 2
Bangladesh 19

Type

Producer organization, 9, 28%
Private enterprise, 23, 72%

34
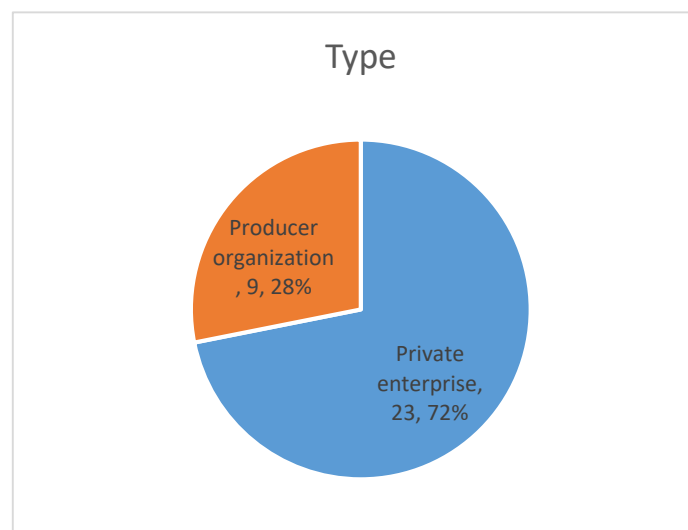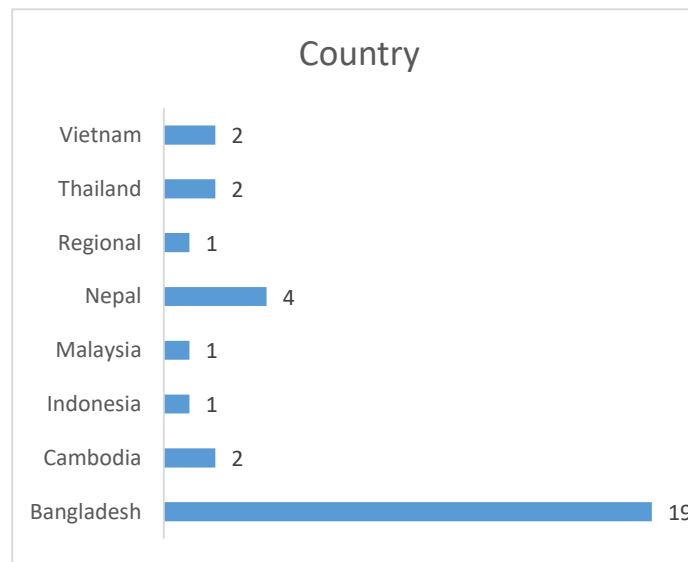
Indicator 1.2.1 Technologies under phase of development

- The Pest Exclusion Net, a pest management technology available in the region, is under phase II, testing
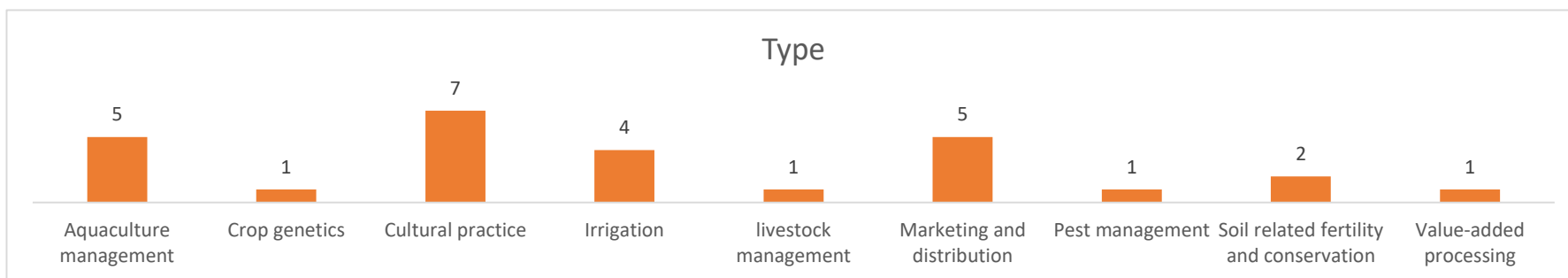
Indicator 1.2.3 Technologies supportive of women, youth and resilience

- The Pest Exclusion Net, is a women supportive technology

Indicator 1.2.3 Technologies proposed, accepted or incubated

#	Technology name	Country of Origin	Proposed date	Accepted date	Awarded date
1	ACI Seeds	BAN	30-Jun-16		
2	Basha pump	NEP	30-Jun-16		
3	Farmer Query System	BAN	30-Jun-16		
4	Raju Chaudhary Farm Management	NEP	30-Jun-16		
5	Sheeji Agro Service Cover and Irrigation	IND	30-Jun-16		
6	Biomass Briquettes	NEP	30-Jun-16		
7	Smart Kishi	NEP	30-Jun-16		
8	GreenGrowth	NEP	30-Jun-16		
9	Solar Powered Pump	NEP	30-Jun-16	30-Sep-16	
10	Mobile-based Transportation System	BAN	30-Jun-16		
11	Sahavagi Production	NEP	30-Jun-16		
12	Sana Kishan Sahakari Pipe	NEP	30-Jun-16		
13	S-MART	PHI	30-Jun-16		
14	WISH	BAN	30-Jun-16		
15	Awaaz.De	IND	30-Sep-16		
16	Faruq Organic Fertilizers	BAN	30-Sep-16		
17	IGATT Kitchen garden kit	NEP	30-Sep-16		
18	MDI Nepal Hatchery technique	NEP	30-Sep-16		
19	Source Trace Aquaculture system	IND	30-Sep-16	30-Sep-16	
20	Source Trace Horticulture system	IND	30-Sep-16	30-Sep-16	

21	Uddayan Sangha Information system	IND	30-Sep-16		
22	Digital Soil Testing Kit	BAN	30-Sep-16	30-Sep-16	
23	ICT enabled Smart Farmers	NEP	30-Sep-16		
24	Sanitized Ice	BAN	30-Sep-16	30-Sep-16	
25	Verifik8	THA	30-Sep-16	30-Sep-16	
26	PEN	THA	30-Sep-16	30-Sep-16	30-Sep-16
27	eFishery	IDN	30-Sep-16	30-Sep-16	30-Sep-16

Type: Aquaculture management 5, Crop genetics 1, Cultural practice 7, Irrigation 4, livestock management 1, Marketing and distribution 5, Pest management 1, Soil related fertility and conservation 2, Value-added processing 1

Indicator 2.1.3 Cross border linkages established

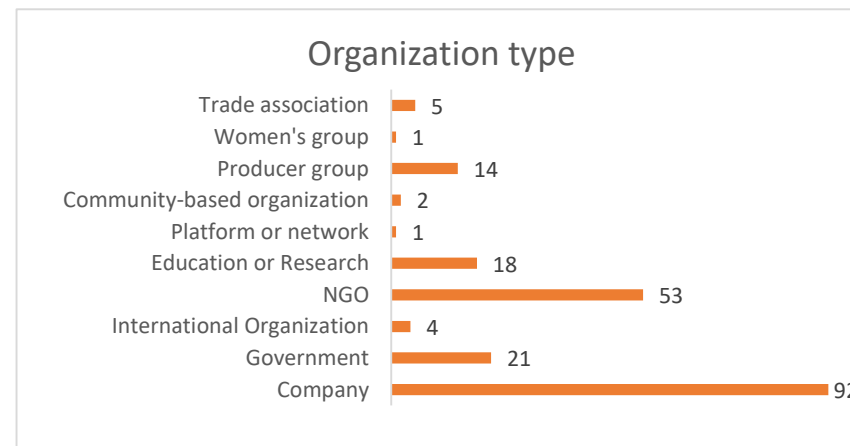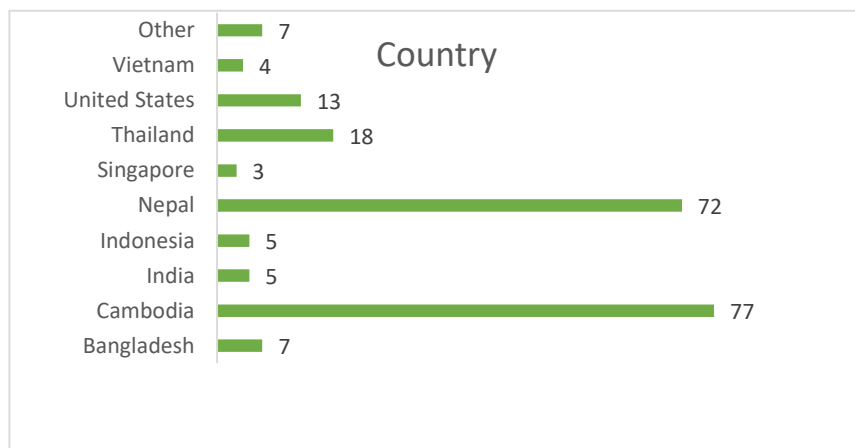| #	Linkage Name	First Partner	Other Partners	Stakeholders
1	Angkor Green sampled nets from TCT	Angkor Green	TCT	2
2	Angkor Green bought MimosaTek's products	Angkor Green	MimosaTEK	2
3	Kasetsart and NARC collaborate on training	Kasetsart Uni	Nepal Agricultural Research Council	2
4	Syngenta-USAID Ag Student Connection Program	Syngenta	19 students	20
5	MimosaTek provided technology to Tienle Cooperative at the Syngenta-USAID Exchange Program	MimosaTEK	Syngenta, Tienle Cooperative	3

Stakeholder type: Producer, 1, 3%; Private Sector, 14, 33%; Civil Society, 27, 64%
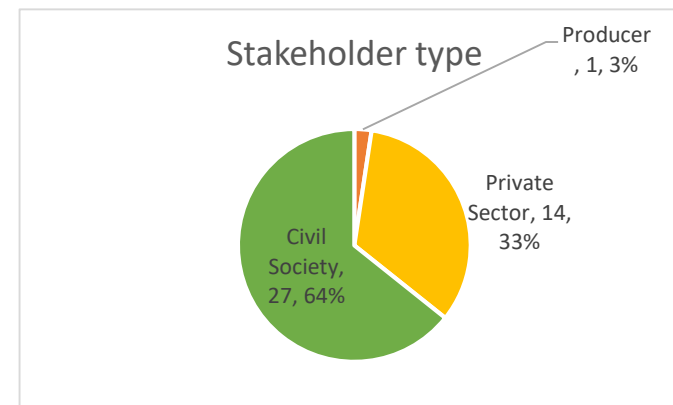
#					
6	Orders and requests to eFishery	eFishery	ACI, Worldfish, Fishtech, Advance Agrotech	5	
7	PEN Research network	Kasetsart Uni	AFU, RUA, BAU	4	
8	eFishery	Kasetsart Uni	eFishery	2	
9	eFishery and Mimosatek	eFishery	MimosaTEK	2	
	TOTAL			**42**	

Focus pie chart: Educational, 25, 60%; Commercial, 11, 26%; Research, 6, 14%
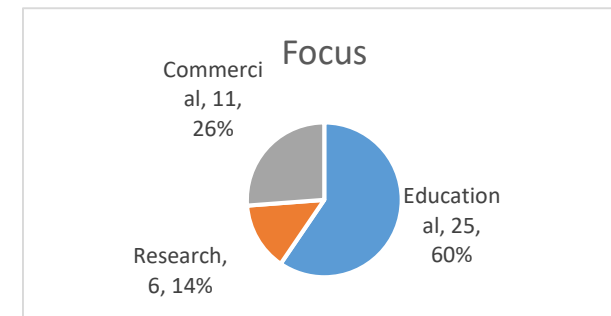
Indicator 2.1.4 Platforms, networks or organizations participating in hubs

#	Event	Level	Date	New participating organizations
1	Asia Regional Agricultural Innovation Summit 2016	Regional	25-May-16	71
2	Asia Agricultural Innovation Summit Nepal 2016	National	30-Aug-16	66
3	Asia Agricultural Innovation Summit Cambodia 2016	National	27-Sep-16	74
	TOTAL			**211**

Country chart:
Other 7
Vietnam 4
United States 13
Thailand 18
Singapore 3
Nepal 72
Indonesia 5
India 5
Cambodia 77
Bangladesh 7

Organization type chart:
Trade association 5
Women's group 1
Producer group 14
Community-based organization 2
Platform or network 1
Education or Research 18
NGO 53
International Organization 4
Government 21
Company 92

Indicator 3.1.2 Public-private partnerships

#	PPP Name	First Partner	Other partners	Date	Focus	Female-owned business as a partner
1	Syngenta - Project Collaboration	Syngenta	Project	25-May-16	Other	No
2	eFishery distribution in Bangladesh 1	eFishery	Fishtech	06-Sep-16	Production	No
3	eFishery distribution in Bangladesh 2	eFishery	ACI	06-Sep-16	Production	No

Indicator 3.1.3 Funding leveraged

#	Organization Name	Type of Organization	Date of leverage	Amount of funding
1	Syngenta	Private	04-Jul-16	161,000
2	Mimosatek	Private	04-Jul-16	289
3	Winrock International	NGO	25-May-16	98,289
	TOTAL			**259,578**